



Roadmap for governance transformation strategy and criteria for effective restoration programmes at the Pilots

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REST-COAST

**Large Scale RESToration of COASTal Ecosystems through Rivers to Sea
Connectivity**



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Preface

The Rest-Coast Project (Large scale RESToration of COASTal ecosystems through rivers to sea connectivity) is an EU Horizon 2020 research project (Grant agreement No. 101037097) whose overall goal is to address with effective and innovative tools the key challenges faced by coastal ecosystem restoration across Europe. The approach chosen for this project will deliver a highly interdisciplinary contribution, with the demonstration of improved practices and techniques for hands-on ecosystem restoration across several pilot sites, supported by the co-design of innovative governance and financial arrangements, as well as an effective strategy for the dissemination of results.

This document presents the approach for the implementation of Deliverable 5.2 *“Roadmap for governance transformation strategies and criteria for effective coastal restoration programmes at the pilot sites”* as part of the Work Package 5 (WP5) deliverables and milestones, focused on creating an enabling socio-economic environment for transformative and restoration-supportive governance that better integrates policies and mechanisms for large scale coastal restoration. Therefore, it intends to provide strategies and actions, tools and strategic roadmaps to develop such a transformative framework at the Pilot Site level.

Deliverable 5.2 is an essential component of the project since it provides a basis which may guide Pilot Sites towards transformative governance. By using the strategies proposed in the resulting roadmaps and by applying the recommendations and actions described to improve on all aspects and criteria related to governance on the Pilots (already evaluated in D5.1 and deeper reviewed under Task 5.4 – Milestone 5.3), the sites will develop a framework for transformative natural resource governance which will pave the way to ultimately bring stakeholders together and drive policy changes supporting in the field of coastal restoration. Deliverable 5.2 provides specific recommendations for actions based on lessons-learned exchanges to improve and out/upscale plans under the project from a governance perspective. This is particularly relevant in the framework of the European Green Deal, the imminent EU Restoration Law, and other environmental policies (e.g. the EU Habitats Directive, EU Birds Directive, etc.). More importantly, the improvement of the governance frameworks of the Pilot Sites will be critical to meeting the WP5 Key Performance Indicator Contributions (KPI-C) set by the project.

To do this comprehensively, the initial analysis carried out in preparation for this deliverable was coordinated with other work packages (WP3 and WP4), basically regarding information gathered on ESS and financials/economics. A second analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT) was carried out for each Pilot. It was completed with one-on-one meetings to gain insight and knowledge on the existing framework within which they operate. On the other hand, it determined the main critical governance barriers for large-scale active/passive restoration (and conservation) at the Pilots. Recommendations resulting from D5.1 were also reviewed with each Pilot site team and updated to be integrated into this deliverable. A preliminary analysis was presented at one of the three workshops on governance prepared for the project, followed by a work session where Pilot Site teams developed further the key actions, needs and barriers they face to improve their governance criteria ratings (based on the M5.3 standardised metrics identified applying the IUCN NbS Standards visualisation methodology). All the results from these analyses have been integrated into this report to provide an action programme that sets up a vision, goals

and objectives to upscale restoration (wetlands, seagrass beds and beach/dune systems), evaluating further interventions, commitments by stakeholders and decision-making process.

Key actions and desirable outcomes to develop an action plan for transformative governance specific to each Pilot Site have been identified in the roadmaps included in Chapters 3 and 4. Chapter 3 provides a general framework and key actions to perform at every site as a whole, followed by a series of strategic roadmaps specific to each Pilot Site in Chapter 4. These tools have been developed to enable the Pilot Site teams to take actionable steps to improve their governance systems and create a governance action plan in collaboration with their stakeholders. Their efforts will allow them to enhance and improve their current governance criteria metrics, transform their Pilot/local/regional/national governance framework, and drive change towards new restoration supportive policies.

Summary

This document has been carefully crafted to outline roadmaps for transforming governance strategies at the Pilot Sites, with the primary objective of enhancing the governance criteria essential for the successful implementation of restoration programs at each location. Its purpose is to provide guidance on proficiently governing while managing natural resources.

The document provides contextual information regarding a framework for natural resource governance and the techniques required to trigger transformative governance practices. Subsequently, it undertakes a comprehensive analysis of requirements of the Pilot Sites, identifying the strengths, weaknesses, opportunities, and threats that they face. Moreover, it prescribes measures to enhance each aspect of the RESTCOAST governance criteria previously assessed.

Significantly, this deliverable underscores the critical importance of comprehending the legal frameworks, policies, and managerial protocols pertinent to the RESTCOAST project. It also places a spotlight on the necessity for inclusive processes that entail active stakeholder participation in the decision-making process. Integrating fundamental principles of environmental sustainability is equally imperative, since it ensures an overarching vision - not only for governance - in harmony with the principles governing sustainable restoration practices at each Site.

This resource not only adds value to the Pilot Sites by complementing the previous assessment of governance criteria, but also outlines **actionable items that must be undertaken to align with the governance goals and necessities of the project**. Moreover, it extends strategic roadmapping across all the Pilot Sites and enhances them with concrete steps and pivotal actions that each one should undertake, given that they have been collaboratively developed. These measures collectively aim at devising and executing a strategic and transformative governance action plan, which should be undoubtedly formulated at the Pilot Site level in close collaboration with stakeholders.

In summary, this deliverable underlines the necessity of grasping the policy context in order to identify opportunities which may feed into the existing and upcoming European regulatory framework and/or beyond. Lastly, it highlights the crucial role that stakeholder engagement plays in gaining credibility and trust, and the importance of adopting sustainable and adaptive practices

in the area of natural resource governance, all of which are pivotal for successful restoration and upscaling outcomes.

Terminology

Nature-based Solutions are actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits (IUCN, 2016).

Governance is defined by who holds de facto power, authority and responsibility to take and implement decisions, how those decisions are taken, how effective and efficient they are, and how accountable (Borrini- Feyerabend *et al.* 2014; IUCN Green List). Governance is a factor in whether and how restoration is implemented and sustained. Governance can also be seen as the range of political, social, economic and administrative systems in place to develop and manage resources and deliver their services at different levels of society (PAP/RAC, 2019).

Devolution refers to decisions taken at the lowest possible level appropriate to the social and ecological systems being governed, ensuring a good balance between the social and ecological scales at which decision-making occurs. It pays particular attention to empowering the roles and authority of indigenous peoples and local communities in the governance of natural resources (Springer *et al.*, 2021).

Tenure rights determine who is allowed to use which resources, in what way, for how long and under what conditions, as well as who is entitled to transfer rights to others and how (Larson and Springer, 2016).

Transformative governance is an approach to environmental governance that has the capacity to respond to, manage, and trigger regime shifts in coupled social-ecological systems (SESs) at multiple scales. The goal of transformative governance is to actively shift degraded SESs to alternative, more desirable, or more functional regimes by altering the structures and processes that define the system (Chaffin *et al.*, 2016).

List of abbreviations

ESS	Ecosystem Services
EU	European Union
KPI-C	Key Performance Indicators Contributions
NGO	Non-governmental organization
NRGF	Natural Resources Governance Framework
RESTCOAST	RESToration of COASTal Ecosystems through Rivers-to-Sea Connectivity Project
SES	Social-Ecological Systems
SWOT	Strengths, Weaknesses, Opportunities and Threats Analysis
WP	Work Package
CORE-PLATS	Coastal Restoration Platforms

1 Introduction

A deficiency in a governance system can become a primary factor contributing to the limited success of ongoing restoration management endeavours, relegating them to experimental "pilot" initiatives. Restoration programs often encounter formidable challenges rooted in political and institutional constraints, inadequate governance structures, accountability shortcomings, the absence of incentives, and conflicts between development or resource exploitation and the preservation of natural conservation objectives, among other issues. Additionally, governance efforts are frequently impeded by the ever-fluctuating dynamics of political and economic conditions, and natural climate variations.

To enhance the efficacy of governance transition within the scope of Pilot Sites, it is imperative to facilitate the prioritisation of various objectives while instilling accountability and introducing adequate flexibility in regulations. These encompass diverse topics such as restoration design and permitting, recognition of the multifunctionality of ESS, stakeholder ownership, and support for long-term goals and requirements. The overarching goal of this governance transformation aimed at upscaling restoration to ensure a harmonious balance and integration with pertinent local, regional, and national plans, programs, and legislation. A multitude of stakeholders, including non-state actors, political systems/governments, service providers, core public agencies, donors, non-governmental organisations (NGOs), local communities, and international actors, are all interconnected through governance transformation and accountability relationships. Each Pilot Site needs to develop a strategy to establish and/or reinforce these relationships in order to ensure successful application of coastal restoration actions and upscaling initiatives successfully.

Despite that reaching transformative governance is an iterative process (see Figure 1), this report will serve as the blueprint (guidance) for developing an adaptable and transformative natural resource governance system at each Pilot Site and present the approach towards the implementation of Deliverable 5.2 *"Roadmap for governance transformation strategies and criteria for effective coastal restoration programmes at the pilot sites"*. Therefore, this report aims to provide:

1. **Strategies and actions** for developing a transformative governance framework that supports advancing of the Pilot site projects and coastal restoration upscaling.
2. The **tools to use** measurable criteria for the RESTCOAST governance framework (developed in D5.1 and M5.3) to improve and enhance results on the indicators used for governance at each site.
3. A **strategic roadmap** which paves the way for each Pilot site to:
 - Improve preconditions to successfully implement and maintain upscaled restoration in the Pilots, mainly about the decision-making processes.
 - Generate new ideas and promote innovation testing, including governance and management innovations within a codesigned updating plan.
 - Engage in a dialogue with policy/private sector actors on Pilot coastal ecosystem restoration and governance, aiming at a practical and possible transformation towards coastal restoration
 - Better integrate the means for successful active/passive restoration of coastal ecosystems and NbS into pan-European policies and international frameworks

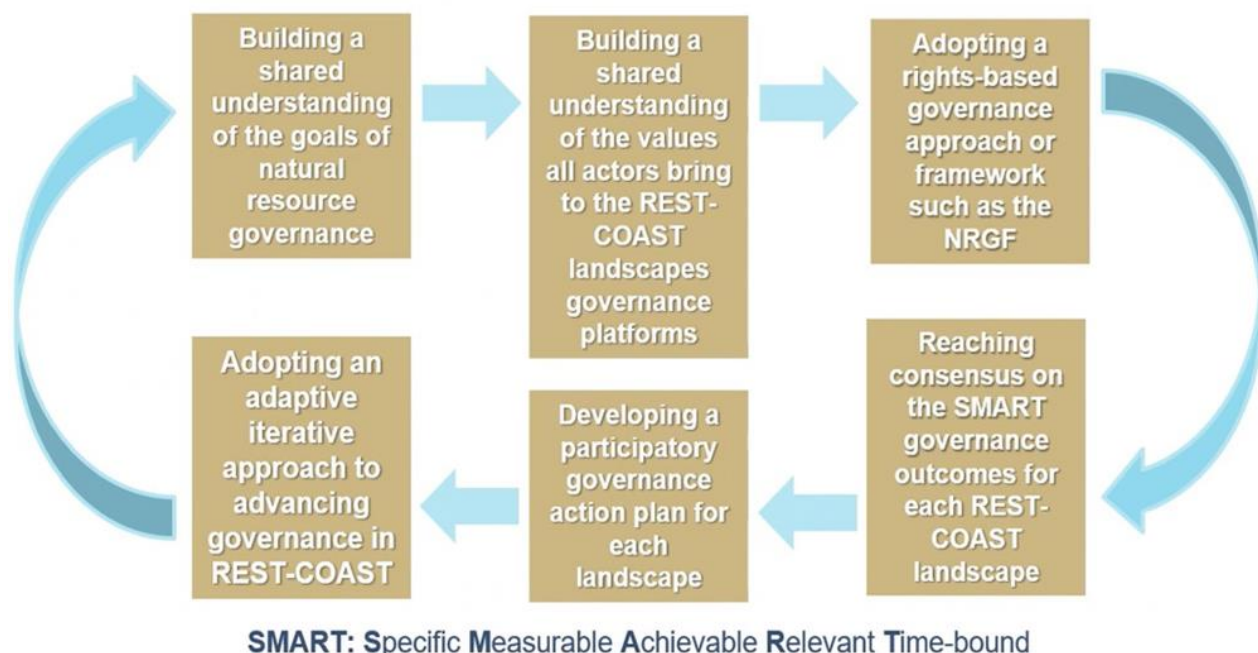


Figure 1. IUCN Natural Resource Governance Framework Process for Transformative Governance. Source: From Dr. Nuesiri. Governance Workshop 1 “Transformative Governance: What is it and how does it help us? Where do we go from there?” (September 2023)

Chapter 1 of this report outlines the overarching natural resource governance framework, founded on the common barriers and facilitators identified across projects. This framework draws from a comprehensive collection of data and assessments conducted during the analysis phase of this Task (Chapter 2), which encompassed one-on-one meetings, self-assessments, SWOT analysis, in-person and online workshops, and a review of previous recommendations.

In Chapter 3 and 4, we provide a roadmap and action plan that delineates a vision, objectives, and decision-making processes tailored to support restoration endeavours. This comprehensive plan encompasses specific actions and steps, to align with each Pilot site's adaptation and climate mitigation objectives. Furthermore, it proposes governance arrangements that aim to:

- a) improve restoration governance criteria/metrics;
- b) decrease barriers and make changes to establish long-term commitments from stakeholders;
- c) establish priorities for financial investments, key target groups and sequencing of actions; and,
- d) drive transformative change and support in local/regional/national policy measures that align with EU legislation which supports and safeguards coastal restoration work.

1.1 Defining a Natural Resource Governance Framework

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).

In the past decade, governance has emerged as a pivotal factor in sustainable development and the conservation of natural resources. It is now widely acknowledged that governance plays a vital role in determining the success of conservation efforts and their impact on human well-being. These connections work in various ways. For instance, research indicates that effective governance is crucial for garnering local support for conservation initiatives, which, in turn, enhances conservation effectiveness (Springer *et al.*, 2021). Certain aspects of good governance, such as inclusive decision-making and coordination, contribute positively to conservation outcomes by involving all stakeholders responsible for or dependent on natural resources in a given context, and influencing frameworks which allow for transformational changes in policy and governance systems within which the project sites operate.

In order to lead the way towards transformative governance systems, it is crucial to consider that a shared understanding among the project and its stakeholders needs to be built around the goals and values for the project's governance, from which a consensus of desirable outcomes can be developed. These need to be SMART: Specific (which this document provides), Measurable (which is accounted for in M5.3), Achievable (which needs to be determined and defined by the Pilot Site projects and their stakeholders), and finally Relevant and Time-bound (which are defined by the RESTCOAST project requirements). These desirable outcomes have been identified and developed in the roadmaps in Chapters 3 and 4, providing specific strategic roadmaps for the Pilot Sites to take further with their stakeholders to create a governance action plan to enhance and improve their current governance criteria metrics, transform their Pilot/local/regional/national governance framework, and drive change towards new restoration supportive policies. To structure a strategic governance action plan for a project, the following steps can be taken (based on Springer *et al.*, 2021, and adjusted to the context of this deliverable and needs identified through the analysis phase):

1. Identify **relevant legal, policy, and management frameworks**: Understand the existing frameworks that establish the strategic vision and direction for natural resource governance. This includes identifying the laws, policies, and management practices that apply to the project.
2. **Conduct inclusive processes**: Involve rights-holders and stakeholders in the decision-making process. Consider their diverse values and forms of knowledge to ensure inclusivity and representation.
3. Incorporate **key principles of environmental sustainability**: Ensure that the strategic vision and direction align with principles such as the precautionary principle against risks of environmental and social harm. This will help promote sustainable practices and minimise negative impacts.

4. Address **present threats and anticipate future challenges**: The strategic vision and direction should effectively and equitably address current threats to natural resources and anticipate future challenges. This will help ensure long-term sustainability and resilience.
5. **Align governance activities with the strategic vision**: Ensure that the governance and management activities are consistent with the strategies articulated in the vision. This alignment will help in achieving the desired outcomes and goals.
6. **Establish monitoring and learning processes**: Implement mechanisms for ongoing monitoring, reflection, and learning. This will enable responsiveness to changing conditions and needs and facilitate continuous improvement in governance practices.
7. **Conduct assessments**: Assess the governance strengths and weaknesses that could affect the project's success or pose risks. This will provide a sound understanding of the governance context and serve as a basis for designing activities and initiatives that improve governance.
8. Enable **collective action and comparative understanding**: Use assessments to generate a shared understanding of governance issues, constraints, and needs among multiple actors and institutions. This can facilitate collective action towards policy reforms and governance improvements. Additionally, comparative assessments can help build an understanding of common challenges and good practices in natural resource governance across different settings.

2 Analysis Performed on the Current Status and Needs of the Pilot Sites

Before identifying governance transformation strategies and developing roadmaps for each Pilot Site, a comprehensive collection of data and assessments was conducted during this task's analysis phase to evaluate the Pilot Sites' current situation. This effort was performed to gain greater interest in the existing governance at the sites, identifying the needs and barriers they were encountering and potential common grounds that would allow them to develop an overarching strategy to build a transformative governance framework at all of the sites. This effort encompassed one-on-one meetings with each Pilot Site, reviews with each Pilot Site team of previously submitted self-assessments (from D5.1), a SWOT analysis to identify key enablers and barriers associated with the projects, in-person workshops to share lessons learned and develop one-on-one strategies for governance improvement at each site, and a review of all related previous recommendations. This Chapter provides a summary of the findings, focusing first on the results taken from the SWOT analysis and followed by the integration of the results from M5.3 that identify specific actions to take to improve on individual governance criteria.

2.1 Strengths, Weaknesses, Opportunities, and Threats Faced Across Pilot Sites

As part of the analysis phase of Task 5.2, and to facilitate the identification of key Strengths, Weaknesses, Opportunities, and Threats associated with the governance frameworks of the Pilot Sites, a SWOT analysis was performed and reviewed with each team (detailed results and raw material to be submitted separately as part of activities developed under D5.2). This task was carried out to identify key barriers and enablers for the Sites to shed light on key steps and actionable initiatives each Pilot Site can take to improve their governance framework, evaluating interventions, stakeholder commitments and potential issues in the decision-making process. This analysis also allowed to complete further the self-assessment information gathered in T5.1, and review the

results with the Pilot Sites during the one-on-one interviews to encompass any status changes that might have occurred at the Pilot Sites (some small clarifications were received, but overall the feedback to the original recommendations made in T5.1 was very positive and constructive, and the teams agreed that the recommendations were generally feasible). After consulting with other WP leaders, an array of areas of interest and specific inquiries were consolidated for the SWOT and shared with the Pilot Sites. This collaboration between the WP leaders allowed for a more comprehensive collection of data on the current status of the Pilot Sites. It reduced redundancy in inquiries for submitting data to the Pilot Sites. WPs 3 and 4 were mainly engaged with the development of the SWOT, and two of the areas of interest developed were focused on information that was of use to those tasks as well. All in all, the information collected for the SWOT included seven (7) areas of interest:

- **Goals and Objectives of the Projects:** Points evaluated covered various aspects related to the Pilot Site goals and restoration efforts. It included an evaluation of current goal progress and methods, measures implemented for success, a distinction between ongoing and planned restoration activities, and considerations for the future schedule of upscale restoration efforts.
- **Status and Needs:** Evaluation of the current status of the Pilot Sites and their elements of governance pertaining to the project. It entailed an examination of actions taken thus far and requirements for the future, as well as a focus on the governance aspects that have facilitated the project's ideation, design, and implementation.
- **Planning and Implementation:** The inquiries encompassed an analysis of challenges and successes that have arisen during the planning and implementation phases of the project. It delved into the reasons behind these challenges and the strategies employed or under consideration for their resolution.
- **Restoration Interventions:** The items in this section centred on the influence of governance, legal aspects, permits, and requirements on implementing of restoration interventions. It explored how these factors may have either facilitated or obstructed the successful execution of the project.
- **Financing and Budget:** Categories evaluated covered several critical aspects, which were reviewed with the WP3 team's input, including the utilisation of resources, their impact, funding and provisioning arrangements with relevant entities, as well as challenges and successes encountered. Additionally, it considered the current resource allocation and potential alternative options.
- **Environmental Services:** In this category (which was reviewed with WP3 team's input to provide value information to their work package and WP5's), questions revolved around assessing Ecosystem Service (ESS) values in terms of loss and restoration. It emphasised the importance of monetising ESS per pilot to evaluate potential revenue generation opportunities. Additionally, the conversation touched upon identifying of prospective revenue sources and highlighted the key Performance Indicators (KPIs) required for quantifying ESS.
- **Stakeholder Management:** This final point evaluated the organisation of various Pilot initiatives, the coordination of stakeholders, and the initiatives in place to facilitate cooperation. It also explored the dynamics of stakeholder involvement, including potential

conflicts of interest and their locations and examined the identities and operating mechanisms of the stakeholders engaged in the project.

Over 850 entries comprise the bulk of information responding to the above areas of interest, which were received from all Pilot Sites through questionnaires, and later refined during one-on-one interviews. This information was used to evaluate key Strengths and Weaknesses (internal to the projects and within their control) and Opportunities and Threats posed to the Pilot Sites (external to the projects and further from their control). This information was shared with the WP leaders and Pilot Site teams when preparing the second Governance Workshop “Governance on RESTCOAST: SWOT review and lessons-learnt” and has been used in developing the strategic roadmaps described in Chapters 3 and 4.

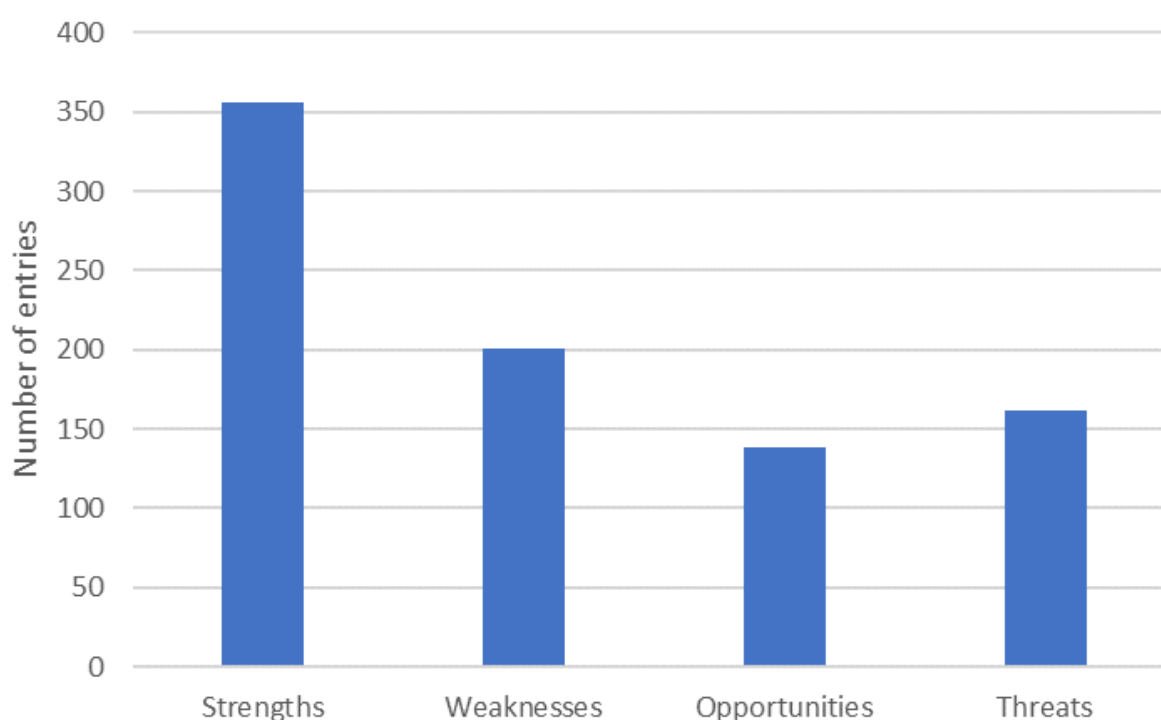


Figure 2. SWOT Input distribution

Figure 2 shows the results received from the analysis, showing a clear bias towards strengths identified at the Pilot Sites compared to the Weaknesses, Opportunities, and Threats. This result also portrays a picture where Pilot Sites identify more areas of Strength and Weaknesses within their circle of influence to be able to change (see Figure 3). Although the number of inputs received across Pilot Sites varied, the proportion of Strengths, Weaknesses, Opportunities and Threats remained quite consistent across the multiple sites.

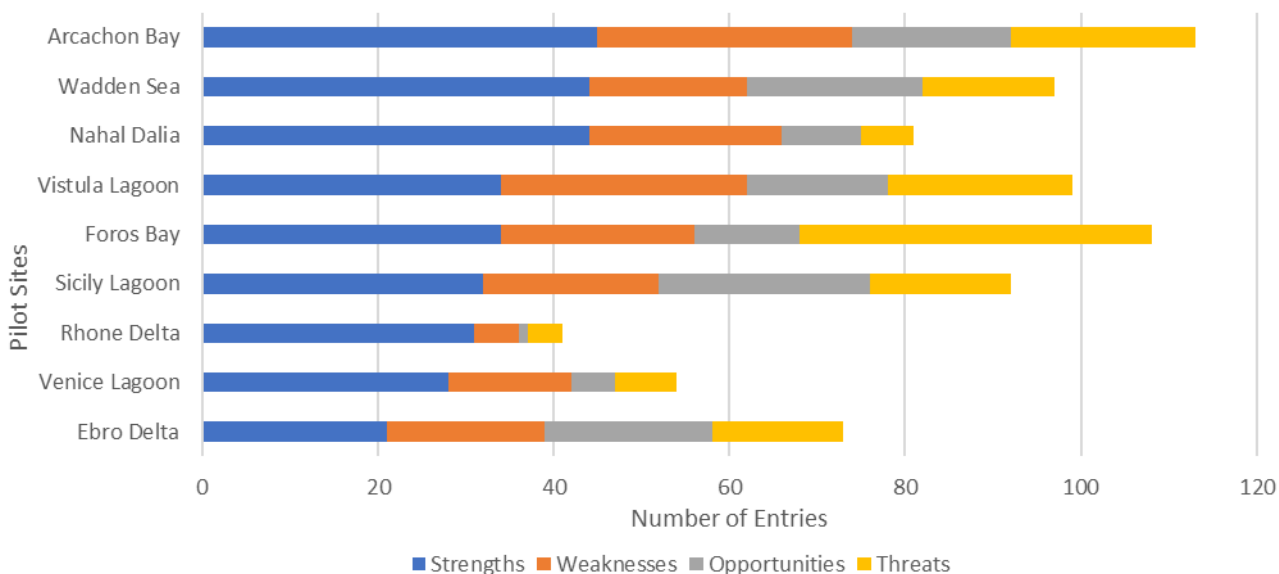


Figure 3. Count of SWOT input summarized by Pilot Site

Summing up the findings, an array of various topics was identified and categorised from the input received from the Pilot Sites. These were mainly consolidated into five (5) key categories of topics that repeated themselves across the SWOT analysis and Pilot Site data (see Figure 4). In addition to these categories, another named “Others” was added, which encompassed any entries that did not fall into the previous categories (usually very site-specific information which only had relevance to a particular project and/or did not get integrated as data-relevant to the analysis on governance performed):

1. Stakeholder engagement and collaboration
2. Administrative and bureaucratic challenges
3. Data and information gaps
4. Public interest and communication
5. Site-specific challenges

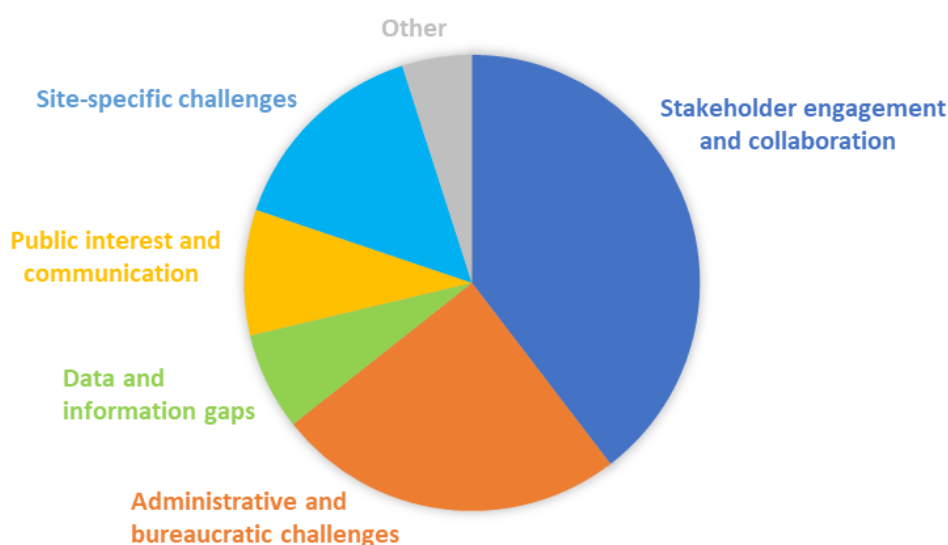


Figure 4. SWOT Analysis Input Categories

Figure 4 encompasses the vast majority of the data collected, and this distribution shows that a significant portion of the input was related to stakeholder engagement and collaboration and administrative/bureaucratic challenges. This analysis has provided insight into specific needs and steps to include in the roadmaps developed in Chapter 3 and 4, collected detailed information on site-specific complexities existing across the Pilot Sites, and helped understand across the Sites what common enablers and barriers the Pilots face in their day to day.

Regarding **common Strengths** through the SWOT analysis, an array of enablers to success were identified. The Pilots with established stakeholder communications and collaborative frameworks in place saw this as a strength, building trust with their stakeholders. These Pilots have multidisciplinary teams (e.g. at Ebro Delta and Nahal Dalia) that work towards meeting the restoration and associated environmental goals and have the technical know-how to improve restoration interventions and maintenance activities that will enhance conditions for the restoration establishment. Many projects were also identified to fit into the long-term policy of coastal development and have funding from multiple stakeholders, making large budgets feasible (e.g. at Wadden Sea). Also establishing flexible maintenance activities was often recognised as an essential facilitator for successful interventions.

Governance frameworks were identified when site or Natura 2000 management plans were in place or governance improvement plans developed (such as in the Vistula Lagoon and Rhone Delta Pilot Sites). They also have local authorities with extensive competencies and jurisdiction over the site, often enabling access and conflict resolution. At times, the primary stakeholder is both the principal investor and manager of the project work, ensuring alignment between project actions and any national-level restoration investments, regulatory requirements or policies in place. Common strengths also identified their capacity to upscale their restoration approaches. Onsite test runs and large-scale modelling to design replication of restoration approaches were also a common strength (e.g., at Nahal Dalia, Sicily Lagoon, and Venice Lagoon). Some already have an upscaling restoration plan approved, and additional land and sites are being purchased for upscaling. The projects that are fast-tracked to regional funds due to regulatory stakeholder involvement have greater strengths, especially when regional and EU funds are already in place. Overall, these projects have the capacity to upscale their approaches and have the financial support to do so. Specifically, the following points were identified as recurring strengths internal to the projects:

- Mobilization of stakeholders to support restoration operations.
- Stakeholder communications and collaborative framework.
- Involvement of local foundations/orgs. representing local stakeholders.
- Maintenance activities for restoration established and ongoing future maintenance.
- Long-term policy alignment with coastal development goals.
- Standards and economic evaluation of ESS.
- Ecological assessment/detailed information on land use and upscaling feasibility.
- Numerical modelling and field observations predicting successful outcomes.
- ESS and BDV indicators (KPIs) measured.
- Ecotourism and increased fishing/angling activities.
- Upscaling through onsite test runs and large-scale modelling.

- Successful implementation of adaptations based on recommendations for site management.

Regarding **common Weaknesses and Barriers** to the projects, many were associated with stakeholder communication and coordination. The Pilots identified a clear need for increased stakeholder input. There were instances of misunderstanding concerning the condition of the Pilot Site and its associated impacts. Difficulties arose in aligning stakeholders, often due to a lack of awareness and interest among authorities. Some stakeholders expressed apprehension about the project's involvement as a government body (e.g., at Nahal Dalia). Moreover, conflicts emerged between existing plans and project goals, primarily driven by influential stakeholders with conflicting interests (e.g., at Rhone Delta). Different stakeholders followed varying protocols and encountered challenges in collaborating effectively (e.g., at Sicily Lagoon and Arcachon Bay). Another common threat identified was that NGOs were often not included in Stakeholder groups, which should be considered as a potential asset for projects as they can provide support and technical expertise, increase the stakeholder network, and add leverage against detractors to the governance framework being built.

A complex governance structure occasionally hindered decision-making processes, resulting in a lack of consensus. Additionally, there were difficulties in coordinating stakeholder engagement processes, often leading to an incomplete reach of targeted stakeholders. The ongoing dialogue between stakeholders faced obstacles, primarily due to a lack of trust among conflicting parties. It was noted that the participatory process was primarily open to private stakeholders, potentially limiting the diversity of perspectives. Furthermore, there was a lack of convergence in stakeholder interests, and conflicts of interest emerged among specific stakeholders. These challenges were exacerbated by the fact that different stakeholders required different pieces of information. The level of public interest was generally low, and there was a deficiency in maintaining contact with stakeholders for advocacy actions. In this sense, the CORE-PLATS may play an important role in the future.

Specifically, the following points were identified as recurring weaknesses internal to the projects:

- Lack of stakeholder engagement and need for more input, coordinating engagement processes, and keeping dialogue active.
- Lack of convergence of stakeholder interests and different objectives.
- Lack of trust between conflicting stakeholders.
- Participatory processes open only to private stakeholders.
- Difficulties in transcending municipal boundaries and local needs.
- Division of the site between properties or even municipal lines.
- Misunderstanding of the condition of the pilot site and its impacts.
- Need for integration of biodiversity and ESS provisioning measures.
- Demand/need for public events and outreach, with strong public interests and economic recovery needs.
- Challenges to provide economic value to the area.

In the area of **common Opportunities** identified across the Pilot sites, a more comprehensive array of topics was documented. The pre-existence of strategic plans, stakeholder engagement strategies, and funding opportunities were common threats. The Pilots emphasise the importance of preserving sensitive areas, engaging with local stakeholders effectively, and leveraging media and communication channels. Additionally, the projects underscore the potential for replication (e.g., at Vistula Lagoon), the need for ongoing improvements, and the significance of generating positive impacts to secure credibility and potential funding (e.g., at Sicily Lagoon and Venice Lagoon). Within this context, the Pilot Sites emphasised the importance of gaining stakeholder support, highlighting the effectiveness of restoration efforts funded by EU LIFE projects. They also emphasised the availability of a local numerical model representing future restored conditions (e.g., at Ebro Delta, Arcachon Bay, Venice Lagoon and Wadden Sea). The potential for scaling up restoration approaches to other systems and the possibilities for additional restoration interventions were also common threats. The Pilot Sites recognise the role of coastal restoration in contributing to N2000 and their potential to reduce CO₂ emissions and capture blue carbon as potential opportunities for the future. They also acknowledge the importance of identifying synergies with other projects and the well-structured EU funding system. Other opportunities highlighted included the interest shown by local stakeholders in future upscaling and the potential for replicating successful restoration projects. The governance frameworks are often described as being participatory and negotiated, with support from government stakeholders, local NGOs (in specific sites), and collaborations with other institutions. In one particular case, establishing a regional national park in the area of the Pilot Site¹ brought many benefits, including an additional funding source and potential collaboration with EU projects.

Finally, the **common Threats** identified through the SWOT analysis included conflicts between local stakeholders and site managers, technical limitations that may delay restoration success, the need for quick responsiveness between stakeholders, and the potential impact of legislative changes on restoration activities. The lack of an integrated and effective management of coastal/wetland/lagoon environments was also identified as a concern (e.g., at Sicily Lagoon). The governance framework suggested by regional regulations is not always legally binding. It does not include the private sector, which may hinder the success of some restoration efforts depending on their context. Additionally, the Pilots identified the lack of understanding from stakeholder authorities on restoration scenarios (e.g., at Arcachon Bay and Foros Bay), insufficient financing (e.g., at Foros Bay), and the lack of a consistent funding for a wetland observatory (e.g., at Oristano Bay). The capacity to upscale restoration approaches is perceived to be further constrained by divergent stakeholder interests and agendas, stakeholder resistance to government plans, and the lack of dedicated resources among local stakeholder teams. Overall, the input from the Pilots emphasised the need for consensus and commitment from decision-makers, as well as effective stakeholder communication and involvement to address these challenges and successfully upscale restoration work.

¹ This was the case of an additional site, the Gulf of Oristano ([Maristanis project](#)), whose information was provided by the MedSea Foundation, a RESTCOAST partner collaborating in WP5. Information from this site was also documented and processed in addition to the data collection and analysis performed at the 9 Pilot Sites of the project. As mentioned in Milestone 5.3, its significance lies in being one of the few examples of voluntary "Coastal Wetlands Contract" among 11 municipalities in Sardinia (Italy). See Annex 2 for more details on this site, its context and relevance to the project.

The SWOT analysis was performed to identify key barriers and enablers for the Sites in order to shed a light on key steps and actionable initiatives each Pilot Site can take into account in the development of the strategic roadmaps to improve their governance framework.

2.2 Measuring Governance Criteria and Indicators of Progress

In line with the IUCN's Natural Resource Governance Framework (Springer *et al.*, 2021), along with the IUCN NbS Self-Assessment Tool (IUCN, 2020) and Wetland Governance Handbook (PAP/RAC, 2019), a set of evaluation criteria were identified to assess the current governance status and potential areas for improvement. This evaluation process was initiated during the governance framework development phase in Task 5.1, where a self-assessment was conducted at the Pilot Sites, which rigorously examined key aspects of nine (9) governance criteria (see Annex 1 for reference) developed under the RESTCOAST project (Aljinovic, B., 2022 – [Deliverable 5.1 Report mapping the governance status quo in pilot sites](#)).

The objective of evaluating these criteria was to gain insights into the existing governance structures at each Pilot Site. The aim was to identify potential obstacles, conflicts, or collaborative opportunities that could either hinder or facilitate a transformative approach and the scaling up of restoration efforts. The resulting data was the foundation for developing M5.3 (under Task 5.4). In M5.3, the IUCN Global Standard for NbS visualization methodology was utilised to quantify and assess the performance of each Pilot Site concerning the pivotal role of governance in evaluating the success and effectiveness of restoration initiatives. The measurement and monitoring of these criteria will serve as progress metrics towards meeting KPI-C measured and accounted for improvement of governance criteria metrics, transformation in Pilot/local/regional/national governance framework, and change towards new restoration supportive policies.

These criteria developed in M5.3 aimed to provide a series of key aspects and approaches that allow for transformative and stronger governance systems at the Pilot Sites. The governance evaluation criteria have been included below in this Chapter, listing key aspects and actionable approaches that can be taken broadly by the Pilot Sites to increase the performance of the governance system upon which any of the Pilot Sites are based.

This information and set of recommended actions are based on lessons-learned taken from examples of sites which have done well in certain areas (see Figure 5), including approaches and suggestions collected from the one-on-one calls with the Pilot Site teams and during the second Governance Workshop “Governance on RESTCOAST: SWOT review and lessons-learned” activity. Some of the proposed actions have been taken from the SWOT analysis, and accounts for direct actions described by the NRGF. It is important to note that the specific steps to improve governance structure may vary depending on the context and specific challenges faced specifically for each criterion, and to refer to the roadmap actionable items and guidelines made in Chapter 4.

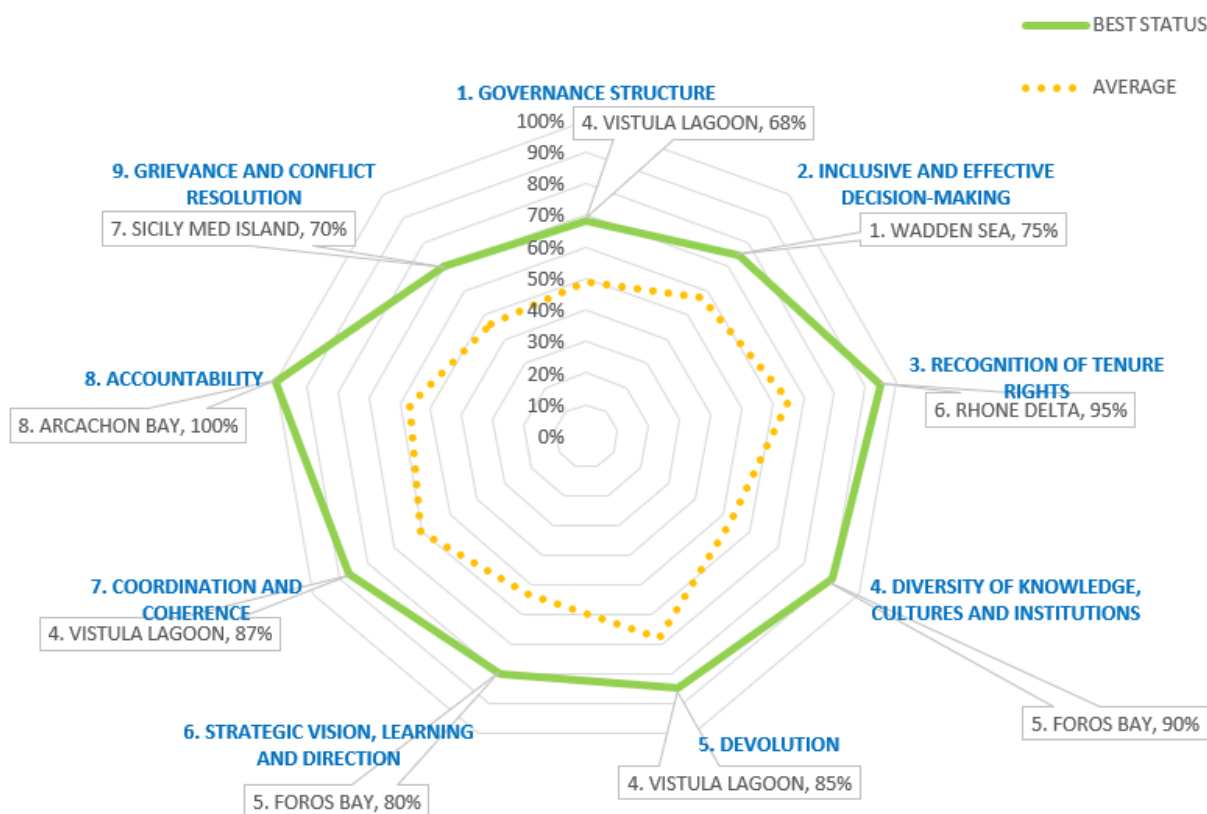


Figure 5. Comparison of the highest performance rates by governance criteria. Source: Milestone 5.3 “Standardised metrics applicable to the IUCN Nbs Standard and complying with EU Nbs”

Criterion 1. Governance structure

- **Identify Areas for Improvement:** Based on the assessment findings, pinpoint specific areas within the governance structure that require enhancement, such as policy gaps, institutional weaknesses, or ineffective processes, and document rigorously the governance structures and actions taken to enhance them.
- **Monitor Progress:** Track the effectiveness of implemented reforms using consistent indicators or guiding questions. Assess whether the changes in the governance structure lead to positive outcomes and adjust as needed. Regularly review and adjust the governance structure in response to changing circumstances and evolving governance requirements.
- **Learn from Best Practices:** Seek insights from successful governance practices in similar contexts and other Pilot Sites. Analyse common challenges and practical approaches in natural resource governance, adapting and applying them to enhance the governance structure.
- **Engage Stakeholders:** Collaborate with relevant stakeholders, including government agencies, civil society organisations, and local communities. Solicit their input, feedback, and participation through collaborative learning events, outreach and participatory engagements, and workshops to ensure that reforms address their needs and concerns and identify collaborations and support which can be leveraged with conflicting stakeholders. This can be done using social science tools, situation mapping and facilitation, and using curated communication skills and techniques to adapt technical and scientific knowledge

with language that is digestible by the different stakeholder groups according to their needs. Use of an outreach specialist, or stakeholder engagement officer, could be a valuable asset to increase this fundamental criterion for governance at a restoration site (Vargas-Nguyen, 2018).

- **Lean on educational and scientific institutions** which can provide tools, experience, and contacts of professionals with significant experience in coastal zone management.

Criterion 2. Inclusive and effective decision-making

- **Strengthen Legal and Policy Frameworks:** Enhance relevant legal and policy frameworks to incorporate robust provisions for involving of rights-holders and stakeholders in decision-making. This may entail reviewing and aligning existing laws and policies with inclusivity principles.
- **Identify all Relevant Stakeholders:** Integrate them at some level into the management and implementation of the project (local, supralocal, regional, national, etc.). Work and communicate to prioritise active coordination and participation of all stakeholders in the decision-making process.
- **Establish Inclusive Platforms and Processes:** Create platforms and processes that facilitate comprehensive and effective participation in decision-making. This can involve setting up forums, committees, or working groups where diverse stakeholders collaborate and contribute to the decision-making process. Engagement should include various stakeholder groups, including NGOs and local communities.
- **Address Power Dynamics:** Acknowledge and mitigate power imbalances within and between different administration authorities and the Pilot Site stakeholders. Implement mechanisms to minimise such imbalances, such as having meetings to reach consensus or issuing recommendations for improvement.

Criterion 3. Recognition of tenure rights

- **Ensure Legal Mandates for Tenure Rights:** Support for relevant laws, policies, and regulations to require the recognition and respect of all tenure rights.
- **Strengthen Robust Tenure Rights:** Enhance tenure rights to provide rights-holders with sustainable access, utilisation, benefits, management, and protection of lands and natural resources, safeguarding them against potential threats. Stakeholders' rights and rights should be firmly grounded and framed in national legislation and underpinned by EU legal instruments
- **Establish Accessible Recognition Processes:** Develop efficient processes and capabilities to acknowledge and uphold land and resource rights, including mechanisms for formal recognition. Natura 2000 sites, for example, are considered important pillars for tenure rights recognition.

Criterion 4. Diversity of knowledge, cultures and institutions

- **Incorporate Diverse Knowledge:** Ensure that governance strategies and actions draw from a broad spectrum of knowledge. Consultations should be made at different levels (governmental agencies, local and provincial authorities, steering committees) to facilitate inputs on expertise from various sources, integrating them into decision-making processes.

- **Promote Learning and Adaptation:** Establish governance institutions that encourage learning and adaptive management. Value insights from diverse cultures and knowledge systems and incorporate them into decision-making. Foster continuous learning and improvement through feedback from various stakeholders.

Criterion 5. Devolution

- **Implement Multi-level Governance:** Establish legal and policy frameworks that delegate natural resource management to capable local institutions. Competencies for national, regional and local authorities should be clearly defined, exercised and linked to the regulatory framework.
- **Support Local Institutions:** Provide necessary support and build capacities for local institutions, including customary ones, to govern natural resources effectively. This support may encompass capacity-building, training, and resource allocation.
- **Recognize Community Roles:** Acknowledge the roles and authority of local communities in natural resource governance and involve them where possible in decision-making and stewardship programs. Decision-making processes should be inclusive of recurrent stakeholder meetings.
- **Promote Learning and Adaptation:** Establish governance institutions that promote learning and adaptive management. Emphasise the value of insights from diverse cultures and knowledge systems, and prioritise appropriate free, prior, and informed consent.
- **Strengthen Legal Frameworks:** Ensure devolution occurs within a robust legal framework that safeguards the environment. There should be widespread consensus between governing bodies based on bottom-up and top-down approaches.

Criterion 6. Strategic vision, learning and direction

- **Inclusive Processes:** Ensure that the strategic vision and direction involve diverse stakeholders through inclusive participation to enrich the decision-making process.
- **Address Present Threats and Anticipate Challenges:** Ensure that the strategic vision and direction effectively address current threats and anticipate future challenges.
- **Consistency with Strategies:** Ensure that natural resource governance activities align coherently with the strategies articulated in the vision.
- **Ongoing Monitoring and Learning:** Establish governance frameworks with processes for continuous monitoring, reflection, and learning, increasing adaptability and improvement over time in response to changing conditions and needs. Regular updates to the project management plans should be made based on monitoring assessed by governing bodies.

Criterion 7. Coordination and coherence

- **Alignment Across Sectors:** Ensure alignment of sectors responsible for or affecting natural resource governance to coordinate efforts and avoid conflicting strategies.
- **Establish Coordination Mechanisms:** Put mechanisms that facilitate horizontal collaboration and coherence among multiple actors and sectors operating in the same geographical space or thematic area.
- **Foster Institutional Collaboration:** Encourage institutions to collaborate and overlap functions to increase resilience. This can be achieved through joint projects, shared

resources, and coordinated decision-making. Also, the competencies of governing bodies should be laid down in national legislation.

- **Monitor and Assess Changes:** Conduct periodic assessments of the governance context or system to monitor changes, identify directions of change, and inform further action. Utilise consistent indicators or guiding questions for tracking progress and improvement.

Criterion 8. Accountability

- **Enhance Transparency:** Share information openly through policies and with policymakers that promote information disclosure in natural resource governance, lessons learnt, and achievements.
- **Strengthen Accountability Mechanisms:** Establish mechanisms, however small, to hold authorities involved in natural resource governance responsible for their actions. This may include legal framework enhancement proposals and citizen participation in decision-making.
- **Define Roles and Responsibilities:** Clarify the roles and responsibilities of institutions overseeing natural resource governance to enhance accountability and prevent process gaps.
- **Monitoring:** Conduct regular assessments of the governance context to track changes, identify areas for improvement, and inform further action. Use consistent indicators or guiding questions for progress monitoring.

Criterion 9. Grievance and conflict resolution

- **Enhance Accessibility:** Ensure grievance or dispute resolution mechanisms are easily accessible and well-known to all stakeholders. Establish both formal and informal mechanisms for accessibility.
- **Raise Awareness:** Promote awareness of natural resource-related rights and available conflict resolution processes through education and outreach programs.
- **Inclusion of Diverse Participants:** Engage diverse stakeholders and consider power dynamics within and between groups in grievance resolution processes. Create platforms and processes that enable full and effective participation of all relevant actors.

3 Strategic Planning for Improvement on Governance Across Pilot Sites: A Common Roadmap

This chapter of D5.2 outlines the overarching natural resource governance framework, founded on the common barriers and facilitators identified across projects. This framework draws from a comprehensive collection of data and assessments from each Pilot Site conducted during the Tasks 5.1 and 5.2 data collection phase, encompassing one-on-one meetings with the Pilot teams, self-assessments and updated reviews of previous submittals, the SWOT analysis, in-person and online workshops, and reviewing previous recommendations. Other references, such as the NRGF (Springer *et al.*, 2021) and other WP deliverables and references (Aljinovic, 2022; Sánchez-Arcilla *et al.*, 2022; Ibañez *et al.*, 2022) have been used to develop this chapter.

Based on the provided context, Pilot Sites can take the following steps to drive transformative change to their governance frameworks, including potential innovations, public consultations, revisions and advancements in policy to support coastal restoration practices within the context of the European Green Deal, other environmental policies (e.g., the EU Habitats Directive, EU Birds Directive, etc.) or even feeding the imminent EU Restoration Law process, if finally approved. These improvements in the governance frameworks of the Pilot Sites will be critical to meeting the WP5 Key Performance Indicator Contributions (KPI-C) set by the project, and the following breakdown provides general recommendations for actions that should be considered across all Pilot Sites.

The following roadmap steps have been identified as the common milestones to take across all the sites to build and drive transformative natural resource governance systems (see Figure 6). These steps consist in:

- Step 1: initial phase of analysis of the baseline conditions and current status of the sites, and their alignment with the goals and vision set for the Pilot Site (including stakeholder values, as described in the IUCN NRGF and Chapter 1).
- Step 2: phase of strategic thinking and road mapping for governance improvement planning and transformation, which can be broken down into three common areas of action for change: identification of multi-level governance systems, transformations in policy, and collaboration/engagement with stakeholders (see the governance criteria related to stakeholders and their engagement).
- Step 3: the initial common roadmap is further broken down, and specific actionable steps are specified on a Pilot Site basis to drive transformative governance and criteria improvement planning at each location within its specific context and given the specific barriers it faces (this is based on the needs at each site identified during the data collection phase of D5.1 and D5.2).

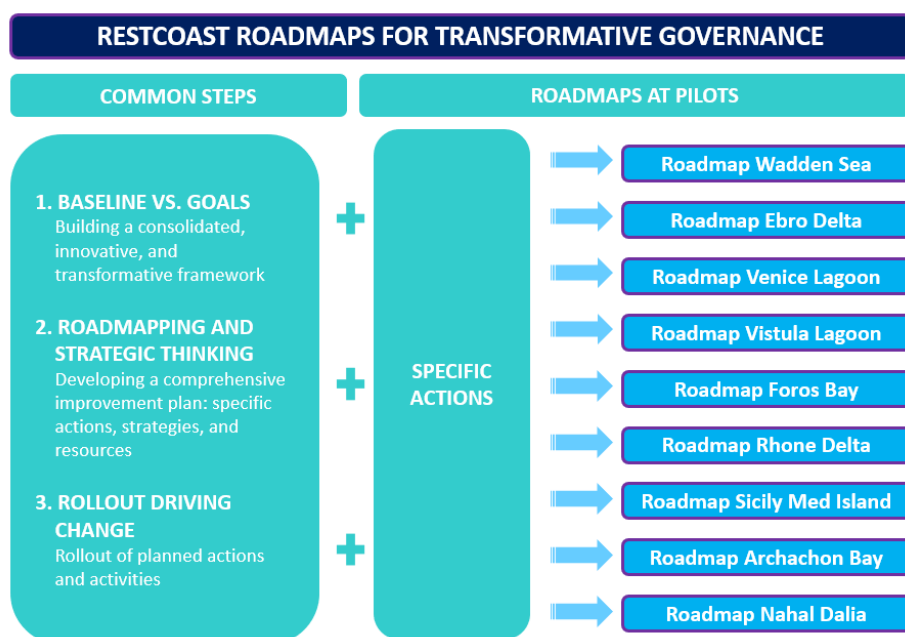


Figure 6. Schematic representation of RESTCOAST Roadmaps

Roadmap STEP 1. Baseline vs. Goals

All the materials developed under WP5 have been designed and delivered to assist the Pilot Sites in conducting a governance assessment of their projects. A holistic understanding of the governance context within which the project operates and identifying the strengths and weaknesses of their governance systems, paves the way to develop and execute a governance improvement plan for each Pilot Site project (see Chapter 2). With this governance context in mind, developing a strategic roadmap must have its foundation on a critical vision and set of goals. In the context of RESTCOAST, the vision of governance for the nine (9) Pilot Site projects is to **build a consolidated, innovative, and transformative governance framework that supports coastal restoration practices by integrating policies and mechanisms for large-scale coastal restoration.**

One of the recurring challenges identified during the SWOT analysis (see Chapter 2.1) were issues related to administrative and bureaucratic difficulties, which often resulted in delays in permitting approvals and work authorisations, difficulties in gaining support from the administration and regulatory agencies to perform the work (and potentially upscale the interventions). It also creates uncertainty in funding and the pathway towards decision-making. All Pilot Site project teams must be familiar with all the relevant policies and administrative bureaucracy for restoration actions at each specific site and should identify entry points for restoration valorisation and funding opportunities. Additionally, for Sites included in protected areas, the environmental policy framework (such as N2000 management plans) is quite relevant. Reaching out to regulatory and oversight officials with questions and concerns while leveraging local support for the project can help bring a voice to the project team's needs. Establishing a close line of communication with local, regional, and even national level officials, building trust and credibility, sharing progress and achievements, and educating on both the benefits of restoration activities and the legislative needs the Pilot Sites encounter can drive a change of perception over time and grow support within the administration and areas of policy regarding restoration.

A resource which is not often mentioned for all Pilot Sites within the RESTCOAST project is each other. Establishing a cooperative framework among the Pilot Sites to address together barriers and enablers to coastal restoration through their lessons-learned and experiences, as shared in the second Governance Workshop, *"Governance on RESTCOAST: A review and lessons-learned"* can provide valuable knowledge sharing and help find synergies that may create opportunities. Promoting a good environment for discussion and interaction within the project and the CORE-PLATS is equally important as this encourages open dialogue and collaboration among stakeholders. Along these lines, also identifying similarities and deviations between pilot sites regarding technical, governance, and financial barriers and enablers can help with understanding common challenges and developing targeted solutions (also carried out in the second governance workshop and developed further in M5.3).

Roadmap STEP 2. Road Mapping and Strategic Thinking

To build a comprehensive governance framework and follow a strategic roadmap aiming at coastal restoration, Pilots should develop a **comprehensive governance improvement plan** to address the governance issues identified through deliverables from WP5 and complementary ones from other WPs. This plan should include **specific actions, strategies, and resources** to this end based on provided guidelines, which should always align with the vision established for the project. Projects

should engage early with relevant stakeholders, including rights-holders and other affected parties to ensure that their perspectives and inputs are considered in the governance improvement process. This participatory approach will help to build consensus and ownership of the proposed changes. 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. Finally, as described in Chapter 2, transformative governance requires an iterative process, therefore planning for change and adopting/designing adaptive approaches that may change over time to advance governance for the project will be key.

Developing a roadmap for transformative governance and strategic thinking must begin by **identifying multi-level governance mechanisms** to ensure the success of large-scale restoration endeavours. When integrated and reinforced by supportive policies, these mechanisms can establish a systemic approach to restoration, facilitating restoration upscaling and more straightforward implementation of restoration projects. This approach emphasises the need for synchronised and coherent governance across river-delta-estuary-coast ecosystems and is further bolstered by technical and financial innovations (including a competitive business plan for the restoration work that identifies innovative means of funding and sustainable financial support and benefits for both the project and its stakeholders). Such integrated governance mechanisms are essential for aligning policies with pertinent national and EU-level directives. This can be done following a “bottom-up” approach (starting at level 1 and increasing from there), beginning with local engagement and development of local governance and growing towards a multi-level governance system. Specifically:

- Level 1. **Consider local realities and cultural context** when designing participatory activities and communication materials. 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.
- Level 2. **Grow the project’s stakeholder network**, driving interest with other similar teams and entities, NGOs, academic and research institutions, and public/private sector organisations. Share lessons learned and participate in active knowledge sharing and outreach programming to gain further credibility and presence in the field to gain additional support and leverage.² 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. Good practice examples from around the EU (and beyond if

² In order to bring greater credibility to a restoration project, and to make its feasibility tangible, there is a strong necessity to transparently account for coastal natural capital within governance frameworks. This involves a comprehensive evaluation of the social-ecological benefits derived from ESS and BD. The assessments encompass various temporal and spatial scales, catering to diverse groups of beneficiaries and stakeholders. Numeric and predictive models of the outcomes of restoration activities are also a great asset to bring greater credibility and the attention of technical expertise to the project. Regular presentation of these assessments to stakeholders plays a crucial role in enhancing understanding and conveying the multifaceted impacts of restoration efforts, particularly in the face of challenges such as sediment depletion in delta regions and projected sea-level rise. Effective communication and ethical presentation of uncertainties are fundamental in this regard. See the paragraph on the “extension of stakeholder engagement and collaborations” at the end of this section for more.

possible)³ should be used, and the scientific community should be involved in dissemination actions. Try to engage the sectors in committing funds by showing economic benefits.

Level 3. **Clarify mandates and competencies** regarding 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.

Regarding **transformation in policy**, active advocacy can provide a significant shift in policy towards greater support for coastal restoration upscaling and decarbonised coastal protection, favouring habitat and biodiversity integration over rigid coastal defence. This approach aligns with the goals of resilience and mitigation of carbon emissions, and to achieve this, there is a strong necessity to develop close collaboration among stakeholders. Expected outcomes can include the resolution of conflicts between upstream and downstream communities in river-coast systems and more secure funding and support, so constant advocacy and planning for it is key in the strategic thinking of building a transformative governance framework for coastal restoration. Furthermore, a transition in governance policies is envisaged by RESTCOAST (and forms part of the KPI-C's identified for WP5), aiming for harmonisation across regions and countries in alignment with higher-level frameworks like the EU Green Deal. This transition would support the scaling up and out of restoration initiatives, bridging existing implementation gaps and accommodating evolving socio-economic demands amidst changing climate dynamics and human pressures (Sánchez-Arcilla *et al.*, 2022). The envisioned upscaled restoration plans are expected to comply with relevant national, EU, and international legislative frameworks, being at the same time complementary to existing framework (e.g., Habitats Directive). Again, to achieve this, a broader spectrum of stakeholders needs to be involved in the Pilots, thereby ensuring that the benefits of enhanced biodiversity and risk reduction are equitably shared within a resilient coastal adaptation framework that aligns with climate mitigation strategies.

This last point leads to a final, yet not less crucial area to evaluate, plan, build and act upon: **extension of stakeholder engagement and collaborations**, which are vital in all areas related to building a governance framework for a project. Despite disagreements, ambiguity, and complexity, collaborative learning is a potent stakeholder engagement technique that can help groups advance. When collaborative learning is planned with an understanding of the mental models used by stakeholders, it can lessen conflict, help stakeholder groups build a sense of shared purpose, and make it easier to take measures to protect the ecosystem services that are valued. In order to value, manage, and sustain ecosystem services, design stakeholder engagement processes, enhance science communication, and facilitate interdisciplinary learning, conservation professionals and scientists rely on effective science communication at all stakeholder levels. This includes fostering collaborative partnerships and adaptive management approaches (Feurt, 2017). Clearly, there is an ongoing and transversal need across all governance areas for stakeholder involvement and capacity building, particularly tailored to local contexts and historical factors. These capacity-building

³ To this end, the database created under RESTCOAST (Deliverable 1.1 “*Database on coastal restoration projects and performance*”) would be extremely useful.

initiatives and stakeholder engagement actions are envisioned to be facilitated through the established CORE-PLATS. These platforms serve as organised forums for bringing together a diverse range of stakeholders, including public and private entities, scientists, investors, managers, and policymakers. They leverage technical, financial, and governance innovations to promote increased socio-economic commitment, driven by continuous training and the provision of new tools and knowledge. Creation of CORE-PLATS was required by RESTCOAST Task 1.2 *“Implementing hands-on restoration in the Pilots”* and further information can be found in Milestone 1.3 *“Establishment of co-development tables in the pilot sites”*.

All strategic thinking and roadmap planning will need to integrate site-specific recommendations and specific actions to elaborate on areas with room for growth for each Pilot Site. Chapter 4 includes the site-specific roadmap details identified as part of 5.2, to which the actions specified in Chapter 2 on current status and needs should be added.

Roadmap STEP3. Rollout Driving Change

Once a strategic plan has been developed, then the **rollout of planned actions and activities** can follow, **implementing the identified governance reforms** according to the improvement plan. This should involve **changes in procedures and arrangements** and more significant **investment in stakeholder management and communications** through actions that enhance transparency, accountability, and participation in the project. Progress and steps taken should be monitored and evaluated regularly to help assess the effectiveness of the implemented reforms, identify any areas that require further attention, to adjust for any changes needed (the rollout should drive change through iterative reviews of the governance framework). Documentation of progress for reporting and knowledge sharing is also key (projects should actively document, learn from experiences, and share lessons learned with other initiatives). This will grow the Pilot Site circle of influence and aid the teams to gain further credibility in their area of action, it will contribute to the collective understanding of good governance practices and enable continuous improvement in future coastal restoration projects.

4 Roadmaps and Action Items to Drive Transformative Changes in Governance at the Pilot Sites

This chapter provides a series of strategic roadmaps and actionable items to improve on recognised needs at each Pilot Site to enable the projects to take steps in building a transformative natural resource governance framework that supports their restoration activities. These actions will enable the Pilot Sites to improve their governance systems and create a governance action plan with their stakeholders, allow them to enhance and improve their current governance criteria metrics, transform their Pilot/local/regional/ national governance framework, and drive change towards new restoration supportive policies. The information developed in this chapter is based on data and feedback collected during T5.1, the SWOT analysis and one-on-one meetings, the second governance workshop and materials developed throughout this activity by each of the Pilot Site teams, as well as references such as the IUCN NRGF, and other deliverables from the Work Packages such as D1.2.

The specific roadmaps have been structured following the same strategic thinking process and steps identified in Chapter 3, identifying first the core needs that each Pilot Site faces (organised by governance criteria, step 1), followed by the necessary actions to resolve these (step 2, organised in the same breakdown that the general strategic planning approach was developed in Chapter 3), and finishing with rollout details and contingency actions in case the strategic actions are not successful (step 3). All items identified for each site have been **organised from high to low priority**: the top of the lists being the highest priorities which can be implemented in the short-term (months)/mid-term (1-3 years), and the last being the lowest priority that can be implemented in the mid/long-term (3+ years) in order to provide insight into possible phasing and planning for the different actions.

4.1 WADDEN SEA (Netherlands, Denmark, and Germany)

This Pilot Site has the particularity of falling under different governance structures and requirements as it is located within a transboundary area between the Netherlands and Germany, with the restoration goal is to revert the triple saltmarsh and summer polder area to a natural state.

Step 1: Baseline status and needs to reach governance goals

- ACTION 1.** Governance Structure: Restoration activities need to be present as a formal task in existing policy documents. Input development for the ED2050 program is underway (through pilot sites and knowledge-sharing programs) to collaborate on policy making and to improve approaches for climate adaptation in regular plans such as N2000-maintenance or development plans.
- ACTION 2.** Inclusive and Effective Decision Making: Long term visions in policies that are already agreed on in the Netherlands should be implemented in regional and local spatial planning instruments.
- ACTION 3.** Diversity of Knowledge, Cultures, and Institutions: Acknowledgement is needed among stakeholders and institutions over the collected data and the implementation of restoration activities.
- ACTION 4.** Devolution: Optimise and improve stakeholder involvement by including NGOs.
- ACTION 5.** Grievance and Conflict Resolution: Optimise and improve stakeholder involvement by including NGOs.

Step 2: Strategic Road Mapping

2.1 Identifying multi-level governance systems

- ACTION 6.** Review national/regional/local authority stakeholder management and devolution strategies to identify any areas or strategies that could be implemented at the Pilot Site scale to increase devolution.
- ACTION 7.** Identify all relevant stakeholders at different management levels (local, supralocal, national).
 - i. Increase the representation of the local communities (which are underrepresented with few local foundations).

2.2 Transformation in Policy

- ACTION 8.** Communicate and advocate with administrative and regulatory officials to integrate restoration practices into relevant policy structures.

- i. Implement first projects in 'N2000-plan supplemental maintenance plan Eem-Dollard. Share lessons learned with the policy makers and provide them with the necessary input for changing policies. This can then be used as an example for developing the coastal zone, integrating it into different policies and supporting the upscaling of different pilots.
- ii. Contextualise these integrations into the framework of the European Green Deal, the imminent EU Restoration Law, and other environmental policies (e.g., the EU Habitats Directive, EU Birds Directive, etc.).
- iii. Implement plans in the 'Omgevingsvisie for the Province Groningen' and develop/apply together new rules (Omgevingsverordening) for the province.

2.3 Stakeholder collaborations

ACTION 9. Revise stakeholder management planning

- i. Increase the recurrence/frequency of meetings, designing tailor-made approaches to communications and outreach.
- ii. Make the decision-making process more inclusive by integrating new groups of stakeholders, such as relevant NGOs.
- iii. Increase stakeholder communications to be more inclusive and to increase engagement.
- iv. Ensure that decision-making at the lowest possible scale is also considered.

ACTION 10. Continue to program and partner with organisations in the Eems-Dollard 2050 program.

- i. Make use of the momentum built from the acquisition of the new license to proceed with the project by leading discussions and open communication with all organisations of the ED2050 program.
- ii. Increase discussion and knowledge-sharing across stakeholders about the differences between the Eems-estuary and Wadden Sea to increase consensus and open discussion.

Step 3: Rollout

ACTION 11. Implement the identified governance reforms according to the improvement planning.

ACTION 12. Invest in stakeholder management and communications through actions that enhance transparency, accountability, and participation in the project.

4.2. EBRO DELTA (Spain)

The Ebro Delta Pilot Site stands out for the particularity that, despite the absence of coastal engineering structures, the Ebro Delta is a low-lying, heavily anthropized environment whose evolution is conditioned by the balance between the sediment contribution from the Ebro River and wave (storm)-induced erosion. The project aims to complete the partial restoration of riverine sediment fluxes by improving the river-coast-sea connectivity, reduce coastal erosion risk linked to dune development and stabilisation, improve water quality by using nature-based solutions to increase water renewal rates, and preserve local coastal habitats, ESS and BDV.

Step 1: Baseline status and needs to reach governance goals

- ACTION 1.** Governance Structure: Governance structures are complex, not clear and overlapping at times. There is a need to improve informed decision-making and reach a higher consensus on restoration approaches.
- ACTION 2.** Diversity of Knowledge, Cultures, and Institutions: Not formally addressed in previous governance schemes, and there is room for improvement in spite of the background in the area to capture and share local knowledge.
- ACTION 3.** Strategic Vision, Learning, and Direction: There is a gap in the official strategic view of the Pilot area and its management practices.
- ACTION 4.** Coordination and Coherence: As a result of the lack of a coherent set of strategies and practices, there are also missing opportunities in coordination and coherence. A lack harmonisation of measures across different policy documents relevant for the site is also apparent.
- ACTION 5.** Grievance and Conflict Resolution: There is a lack of support on reservoir sediment by-pass from some administrations. Some stakeholders (public and private interests) oppose some actions implemented in previous projects and there are different views on possible interventions to prevent regression and subsidence (such as a lack of consensus among experts on the use of soft vs hard engineering). Conflicts of interest have also been identified during changes in land use (e.g., rice field to lagoon) and expropriations.

Step 2: Strategic Road Mapping

2.1 Identifying multi-level governance systems

- ACTION 6.** Develop guidelines within the governance improvement plan.
 - i. Ensure that governance actions taken in the CORE-PLAT and for future restoration upscaling promote the integration of knowledge and inputs coming from a variety of sources.
 - ii. Improve the governance structure documentation by mapping the competencies of the governance actors at a national and regional scale.
- ACTION 7.** Ensure that CORE-PLAT members and those engaged in future restoration co-create actions at different governance levels (governmental agencies, local and provincial authorities, steering committees).
 - i. 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.
 - ii. Identify clear pathways for future decision-making and how the CORE-PLAT may contribute and engage with the relevant actors to catalyse restoration upscaling across multiple levels of governance systems.

2.2 Transformation in Policy

- ACTION 8.** Align traditional knowledge with restoration and resilience in the Ebro Delta area.
 - i. Integrate supporting approaches in local planning and policies (e.g., such as green infrastructure and ecotourism planning).

ACTION 9. Promote adaptative management as an effective method for coastal restoration project implementation in the eyes of restoration experts, administrative officials, and regulatory agencies.

- i. Promote regular updates of management schemes based on monitoring (e.g., including this in the CORE-PLAT agenda with key relevant decision-making stakeholders).
- ii. Increase awareness and knowledge related to difficulties associated with the administrative permitting system to reduce delays and potential time constraints in the project implementation.

2.3 Stakeholder collaborations

ACTION 10. Ensure inclusive participatory processes are integrated into the governance improvement planning to define the strategic vision, increase consensus across conflicting interests, and to develop further the management schemes.

ACTION 11. Promote knowledge sharing about restoration approaches and their implications/feasibility in the context of the RESTCOAST project to help with decision making. This may help to clarify positions and interests and to raise awareness around the importance of NbS, ESS and BDV in future restoration actions (this could also potentially have an impact in the transformation in policy increasing support for restoration activities). Other information of interest for local/regional key stakeholders includes successful business cases related to NbS and governance to raise awareness.

ACTION 12. Promote and increase engagement with multiple stakeholder groups.

- i. Co-create with other stakeholders' restoration actions with clear goals.
- ii. Track the accomplishment and advancement of project goals (sharing progress, disseminating NbS cases, etc.). Common grounds and a baseline should be identified to tackle adaptation in the region in a coordinated and efficient way, using the CORE-PLAT to establish a common framework among different stakeholders.

Step 3: Rollout

ACTION 13. Update governance improvement planning and strategic vision, together with the management schemes as needed.

ACTION 14. A contingency approach to consider if the actions to improve the governance structure of the project are not feasible includes to promote the RESTCOAST project structures as forums to spontaneously improve governance, to promote networking among stakeholders and to raise awareness (e.g., the Alfacada project may illustrate the feasibility of soft restoration actions).

4.3. VENICE LAGOON (Italy)

The Venice Lagoon Pilot action consists in a restoration intervention on already existing artificial saltmarshes aimed at accelerating the naturalisation processes for increasing priority habitats and biodiversity.

Step 1: Baseline status and needs to reach governance goals

ACTION 1. Governance Structure: Need to increase transparency and data availability.

- ACTION 2.** Inclusive and Effective Decision-Making: Lack of stakeholder involvement and needs for increased funding. Governance in the Venice lagoon is particularly complex because multiple human activities with an impact on biodiversity take place here, often corresponding to one or more competent authorities as well as multiple stakeholders, making decision-making slow.
- ACTION 3.** Recognition of Tenure Rights: Lack of clarity.
- ACTION 4.** Diversity of Knowledge, Cultures, and institutions: Greater information sharing and integration of knowledge into the restoration work is needed.
- ACTION 5.** Strategic Vision, Learning, and Direction: Limited coordination between different public institutions. Bureaucratic rigidity has hindered the internalisation of some of the suggestions provided to improve the restoration activities.
- ACTION 6.** Coordination and Coherence: Greater public involvement and stakeholder management is needed.
- ACTION 7.** Accountability: Room for improvement on KPI metric definition and tracking.
- ACTION 8.** Grievance and Conflict Resolution: Current conflicting interests are present.

Step 2: Strategic Road Mapping

2.1 Identifying multi-level governance systems

- ACTION 9.** Improve the clarity and recognition of tenure rights
 - i. Facilitate a clearer management of concession rights in the lagoon, starting with the identification of criteria to be followed and adopted.
 - ii. Clarify the situation of property rights associated with some areas (e.g., “Valli di Pesca”) previously considered as public and currently considered as private.
- ACTION 10.** Enhance strategic adaptability of the governance systems
 - i. Promote open and transparent discussions between social, economic, cultural, environmental realms.
 - ii. Enable the establishment of permeable vertical boundaries between the actors at multiple levels of governance, allowing emerging challenges to be better metabolised and integrated in the decision-making process.
 - iii. Favour the creation of an effective multi-level governance system for the Venice Lagoon, dealing with complex challenges in which different decision makers are involved early in the process (i.e., EU, National, regional, local authorities, etc.), to seek and find shared solutions.

2.2 Transformation in Policy

- ACTION 11.** Promote relationships with other cultural high-level territorial institutions (e.g., Fondazione Cini, IVSLA) to promote the development of a shared strategic vision for the Lagoon of the future.
 - i. Participate in ongoing initiatives aimed at revitalising the city and the lagoon's socio-economic system.
 - ii. Stimulate the debate with specific local organisations to connect the economic potential offered by businesses and the social repercussions with environmental sustainability, gaining greater interest from the local administration and regulators.
- ACTION 12.** Promote the systematic involvement of all the public bodies at local level.

- i. Work towards improving the pace of the decision-process, due to the involvement of various institutions related to the same topics.
- ii. Stimulate effective cooperation between public bodies for an integrated water quality monitoring network of the Venice lagoon.

ACTION 13. Analyse overlapping of the aims of existing policies and the project.

2.3 Stakeholder collaborations

ACTION 14. Increase stakeholder management.

- i. Bring additional stakeholders on board to meet common goals, enhance coproduction, and build a long-term cooperation.
- ii. Promote the establishment of a local stakeholder network comprising scientists, NGOs, trade associations, and other actors involved in environmental restoration, ensuring their connection with wider European and international networks to stay informed about the latest knowledge and solutions.
- iii. Guide the strategic vision, considering the economic, cultural and ecological needs and priorities to be faced, based on the available scientific knowledge by developing a more systematic/solid way of engaging the different stakeholders in participatory processes (starting from the CORE-PLATS of RESTCOAST). This shall be done through targeted meetings and public assemblies, engaging the political decision-makers at different scales (local, regional, national).
- iv. Promote the use of knowledge brokers to facilitate the exchange of knowledge and information between scientists, stakeholders, decision makers and the general public to avoid misunderstandings and lowering the risk of grievance and conflicts' generation.
- v. Improve impartial and effective mechanisms to resolve conflicts and grievances thanks to an impartial external consultant or a mediator within the community itself (however this action is not up to the RESTCOAST project).

ACTION 15. Improve communication and dissemination.

- i. Increase public availability of restoration activity reporting and improve the sharing of these data/reports through communications with the responsible authorities.
- ii. Stimulate knowledge-sharing through public outreach events including stakeholders, competent authorities and even general public. This can include contributions to the ongoing debate about restoration activities in the Lagoon, integrating experts and stakeholders into the discussion, highlighting pros and cons and the consequences of non-intervention. Increase knowledge transfer and awareness also through information exchanges and lessons-learned associated with other RESTCOAST projects and other relevant research around the world.
- iii. Increase the participatory process through the organisation of workshops (co-organised by RESTCOAST, CORE-PLATS, etc.), with the subsequent analysis of the inputs received, and the dissemination of key-messages. The consultation of different actors of the social, economic and

environmental lagoon system through this process will improve the available knowledge (including that generated by the traditional economic sectors), and this should be integrated into the decision-making process.

Step 3: Rollout

- ACTION 16.** Encourage the definition of KPIs that are able to account for progress with respect to the policies and project objectives.
- i. Define time limits for achieving KPIs.
 - ii. Identify measurable results and objectives which need to be SMART (Specific, Measurable, Achievable, Relevant, Time-Based) to track and monitor progress.

4.4. VISTULA LAGOON (Poland)

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 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.

Step 1: Baseline status and needs to reach governance goals

- ACTION 1.** Governance Structure: Limitations/Deficiencies for effective management despite clear split of competences.
- ACTION 2.** Recognition of Tenure Rights: Areas of responsibility should be well defined with clear long-term perspective and vision.
- ACTION 3.** Diversity of Knowledge, Cultures, and institutions: Investment in human capital should be expanded across the project.
- ACTION 4.** Devolution: Greater collaboration is needed among various administrative entities, particularly between the two provinces.
- ACTION 5.** Coordination and Coherence: Improvement of connectivity among all involved administrative entities. There is a lack of transboundary cooperation with Russia and a substantial lack of harmonisation of policies among the two countries in reference to the lagoon.
- ACTION 6.** Accountability: Enablement of greater self-reliance of the southern banks of the lagoon.

Step 2: Strategic Road Mapping

2.1 Identifying multi-level governance systems

- ACTION 7.** Cultivate collaboration between the Maritime Office, local and provincial authorities and the research sector.
- ACTION 8.** Maritime Office should retain its pivotal role in granting/withdrawing tenure rights.
- ACTION 9.** Generate gradual economic recovery of the area.
- i. This will generate various pressures on the lagoon, and the general mechanism of consultations between local authorities, local business and the Maritime Office will remain the key instrument of informed management. This might lead to the need of transformation in local

ordinances or regulations related to the access and use of the restored areas.

- ii. Seek economic development by expanding contacts with hinterland (as a result of the planned expansion of Elbląg harbour).

2.2 Transformation in Policy:

ACTION 10. Advocate to improve transparency of management practices and actions on all administrative levels

2.3 Stakeholder collaborations

ACTION 11. Promote and increase stakeholder engagement.

- i. Collaborate with the Maritime Office with research entities, promoting knowledge on biodiversity restoration among local inhabitants. Transfer knowledge and increase awareness about long-term benefits of introducing NbS; and implementing biodiversity restoration.
- ii. Collaborate with the Maritime Office and its stakeholder consultation events and public outreach activities, and advocate for them to hold more frequent consultations with stakeholders having divergent interests.
- iii. Participate in the informed dialogue with the Maritime Office on granting/withdrawing tenure rights with local authorities in the protection belt.
- iv. Improve collaboration between two Provinces that administer the Site in most management aspects, incl. biodiversity restoration (i.e., Pomorskie, the spit and Warmińsko-Mazurskie, and the southern banks of the Site area).

ACTION 12. Seek win-win solutions for all involved local communities, prioritising biodiversity conservation and restoration.

- i. Boost biodiversity restoration as element of attractiveness of VL for tourists.
- ii. Advocate for the Maritime Office to hold more frequent consultations with stakeholders having divergent interests.

Step 3: Rollout

ACTION 13. Implement the identified governance reforms according to the improvement planning.

ACTION 14. Invest in stakeholder management and communications through actions that enhance transparency, accountability, and participation in the project.

4.5. FOROS BAY (Bulgaria)

The Foros Bay Pilot Site 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.

Step 1: Baseline status and needs to reach governance goals

ACTION 1. Governance Structure: Improvements in communication and coordination between the institutions and all other actors needed. Improvement of the relevant legislation concerning restoration to ease the process is also apparent, and the transformation of the governance model of NATURA 2000 network. The 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.

ACTION 2. Inclusive and Effective Decision-Making: Lack of balance in power dynamics between multi-level and multi-stakeholder decision-making processes, since impartiality often suffers due to prevalence of private interests. Improvement of knowledge, capacity and experience of decision-makers/ practitioners/scientific community concerning NbS is needed.

ACTION 3. Diversity of Knowledge, Cultures, and Institutions: Potential lack of stakeholder awareness and support for NbS and goals of restoration actions (with the exception of the administration, NGOs and relevant scientific institutions). Communication and coordination between the institutions and all other actors (e.g., scientists, NGOs and local communities, etc.) needs further improvement.

ACTION 4. Accountability: Need for subsequent control of the of issued permits and their underlying conditions for activities in the coastal zone by the relevant authorities, e.g., regional inspection directorates.

ACTION 5. Grievance and Conflict Resolution: Greater balance between private interests and public/community interests is necessary since impartiality often suffers due to prevalence of private interests. Need to mitigate possible future conflicts with local fishermen with regard to their activities in the Pilot area. The prevention of future conflicts and raising public awareness concerning activities related to lake Vaya-Foros bay connectivity improvements is very important.

Step 2: Strategic Road Mapping

2.1 Identifying multi-level governance systems

ACTION 6. Implement the new NATURA 2000 management model at the national level.

- i. Activate citizens' participation in the control process, e.g., signalling the authorities in cases of irregularities.

ACTION 7. Using results on restoration activities, field measurements, and modelling on coastal processes and assessment of ESS at the site are developed, engage with stakeholders more supportive towards the project to raise their awareness with regard to the use of NBS.

- i. Clarify mandates and competencies with regards to restoration actions at the Site.
- ii. Work towards establishing mechanisms to overcome the lack of coordination at different governance levels and increase mutual understanding of priorities.
- iii. Create the conditions for improved collaboration of all main stakeholders at the sites by establishing the CORE-PLATS, working to ensure the sustainability and continuity of this mechanism.
- iv. Advocate with interested actors to apply more sustainable approaches in their actions at the site by showcasing the overall long-term benefits, making use of good practice examples from around the EU and involving the scientific community in dissemination actions.

ACTION 8. As funding is a major constraint for large-scale restoration, consider gaining the interest and commitment of sectorial actors as they might have more substantial

resources available. Common initiatives, such as joint package developments, could increase the commitment if they show economic benefits in the long run.

2.2 Transformation in Policy

ACTION 9. Advocate for more legislative requirements on the inclusion of the scientific community to participate in coordination procedures concerning activities in the coastal zone. This could be done by supporting relevant legislative changes in areas such as the scope of the targeted species and requirements concerning the reintroduction programs.

ACTION 10. Integrate and develop mechanisms to prevent corruption.

- i. Accountability mechanisms should be more clearly and effectively defined.
- ii. Increase control over the implementation of these accountability mechanisms by the relevant authorities/actors.

2.3 Stakeholder collaborations

ACTION 11. Promote and increase stakeholder engagement.

- i. Improve the knowledge base and experience of relevant groups/actors involved in the restoration activities on NbS, serving as a starting point for future projects to play a role of capacity-building mechanisms. This can include the organisation of meetings through the local fishermen community in order to present the RESTCOAST project and its objectives, and to seek tolerance, understanding and cooperation to prevent future conflicts.
- ii. Map stakeholder framework and disseminate the project's results on the application of NbS in the restoration activities to relevant actors and the wider public to improve knowledge on application of NbS in coastal waters. 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.
- iii. Inform the community through appropriate channels about the upcoming activities (after coordination with the MoEW) related to maintenance of canal connectivity between the Foros bay and the Lake Vaya (reed vegetation management) in order to ensure a better water exchange between the two basins and improvement of the Lake Vaya.
- iv. Develop mechanisms to satisfy both private & public/community interests to possibly avoid future grievances & conflicts (win-win strategy).

Step 3: Rollout

ACTION 12. Implement the identified governance reforms according to the improvement planning and integrate them into the management plans for NATURA 2000 site present in the scope of the Pilot (if these management plans have not been developed, then participate in the advancement of their preparation). Regular monitoring and updates to these plans should be considered every 5 years.

4.6. RHÔNE DELTA (France)

In the framework of RESTCOAST, the goal of this Pilot Site (a former Saltworks site) is to restore 300 ha of coastal lagoons, and 60 ha of Mediterranean halophilous scrubs/Salicornia and other annuals colonising restored mud/sand. This site had the peculiarity that it operates and is managed under three governing committees which hold the majority of the agency over the project's management.

Step 1: Baseline status and needs to reach governance goals

- ACTION 1.** Diversity of Knowledge, Cultures, and institutions: Lack of knowledge of the consequences and benefits of restoration is apparent.
- ACTION 2.** Accountability: The optimal role of some of the members of the steering committee that manages the site is at risk due to governance and financial limitations.
- ACTION 3.** Grievance and Conflict Resolution: Stakeholder engagement needed.

Step 2: Strategic Road Mapping

2.1 Identifying multi-level governance systems

- ACTION 4.** Find additional funding for the Natural Regional Park staff to ensure their role.
 - i. Transfer some of the roles of “weaker” partners to other stakeholders.
 - ii. Find additional funding for the external partner to continue community and stakeholder participation.
- ACTION 5.** 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)

2.2. Transformation in Policy

- ACTION 6.** Promote and increase engagement with the governing committees or regulatory authorities and share lessons-learned regarding possible improvements and integrations of these into policy or regulatory structures.

2.3 Stakeholder collaborations

- ACTION 7.** Promote and increase stakeholder engagement.
 - i. Organise and promote consultations with the local stakeholders (use external expertise where warranted).
 - ii. Continue the implementation of the new management plan to ensure more participation and communication amongst different stakeholders and thus reduce the conflicts.
 - iii. Increase the visibility of the active stakeholders to improve credibility and create more incentives.
 - iv. Make the modelling and other studies more accessible to the general public with a more developed public outreach plan.

Step 3: Rollout

- ACTION 8.** Implement the identified governance reforms according to the improvement planning.
- ACTION 9.** Invest in stakeholder management and communications through actions that enhance transparency, accountability, and participation in the project.

4.7. SICILY MED ISLAND (Italy)

Sicily Mediterranean Island regional fellow Pilot Site is located in southern Italy, and is characterised by two main lagoons in close connection to the neighbouring narrow coastal fringe.

Step 1: Baseline status and needs to reach governance goals

- ACTION 1.** Governance Structure: A coordination among regional government (several offices involved), local municipalities, public and private site managers is needed.
- ACTION 2.** Diversity of Knowledge, Cultures, and institutions: Different actors (e.g., policymakers, municipalities, farmers, environmental NGOs, etc.) need to share knowledge, discuss about problems and agree upon common solutions.
- ACTION 3.** Devolution: There is scarce cooperation between government and stakeholders at the lowest possible scale
- ACTION 4.** Strategic Vision, Learning, and Direction: Need of a coordinated support and management at regional scale of coastal restoration initiatives.
- ACTION 5.** Coordination and Coherence: Need of a coordinated support and management at regional scale of coastal restoration initiatives. Local site managers and main authorities compose a scattered stakeholder framework following different uncoordinated strategies, which struggle to collaborate efficiently. Furthermore, the different public departments involved in the management and protection of natural resources need capacity building and coordination.
- ACTION 6.** Accountability: Mechanisms to increase accountability and roles need to be made clear and accessible to stakeholders.

Step 2: Strategic Road Mapping

2.1 Identifying multi-level governance systems

- ACTION 7.** Identify risks induced by climate change threats and needs for NbS within local municipalities/site managers.
 - i. Involve the Water District Authority on the adoption of NbS for within Flood Risk Management Plans
- ACTION 8.** Promote coordinated actions of stakeholders on NbS implementation within the next available regional funding schemes.

2.1 Transformation in Policy

- ACTION 9.** Discuss with relevant regional officers (e.g., Water Authority, Civil Protection, Agriculture Dept, etc.) about EU regulation on climate change adaptation.
 - i. Establish a local COREPLAT/Signature of a Coastal Restoration Contract.
 - ii. Attempt to interact with decision-makers at regional and local scale to improve awareness.

Stakeholder collaborations

- ACTION 10.** Promote and increase stakeholder engagement.
 - i. Organise public events for sharing stakeholder and research knowledge as a starting point for setting a common baseline on problems and interests. Support the exchange of information among different ongoing initiatives

- that require accountability (e.g., Life projects/Interreg and other transboundary programmes).
- ii. Facilitate discussion with/among different restoration actors (active and potential) based on successful case-studies.
- iii. Set-up bi-lateral discussions with non-collaborative stakeholders (mainly in municipalities, regional government and farmers) pushing forward the idea that good ecological status leads to greater economic value, and highlighting the link between the quality of the environment and world heritage. Conduct informative actions and gradually involve these stakeholders and local municipalities.

Step 3: Rollout

- ACTION 11.** Implement the identified governance reforms according to the improvement planning.
- ACTION 12.** Continue to collect data through monitoring/modelling on the effectiveness of coastal restoration and integrate findings in communications and outreach efforts.

4.8. ARCACHON BAY (France)

The Arcachon Bay regional fellow Pilot Site is located in the western coast of France and aims to settle a large-scale recovery process for these seagrass species, and to replicate over Arcachon Bay and other sites.

Step 1: Baseline status and needs to reach governance goals

- ACTION 1.** Governance Structure: Governance stakeholders have a clearly defined R&R which is not readily accessible and is needed to ensure a holistic and transversal approach of all ESS.
- ACTION 2.** Inclusive and Effective Decision-Making: Need to assess the benefits gained from upscaled restoration scenarios, so that they can be integrated in a multi-stakeholder decision-making process and to justify restoration actions.
- ACTION 3.** Diversity of Knowledge, Cultures, and institutions: Several local stakeholders are involved in the management of the area (local governance, tourists, oyster farmers, scientists, area managers, and so on), all with very different objectives and priorities.
- ACTION 4.** Devolution: The decision-making process is mostly lead at a local scale and each regional entity has its own understanding and strategy regarding climate change adaptation rules and processes.
- ACTION 5.** Strategic Vision, Learning, and Direction: Local strategies are decided according to each institution and its scope. There is no possibility at this stage to build a common strategy on large scale coastal restoration.
- ACTION 6.** Grievance and Conflict Resolution: Conflicts regarding use of the channels' edges by oyster farmers are ongoing, in addition to other conflicting interactions between entities. Local stakeholders/institutions have their own missions and objectives.

Step 2: Strategic Road Mapping

2.1. Identifying multi-level governance systems

- ACTION 7.** Design common funding processes for coastal restoration topics, accordingly to the expected benefits and respective scopes of interventions.
- i. Define financial arrangements with dedicated leaders
 - ii. Define for future upscaling actions what entities can contribute and to what extent, according to the targeted benefits identified for the project.
 - iii. Define consistent funding mechanisms and intervention protocols.
- ACTION 8.** Bond with local MPA manager to support the project's results and transfer them to local stakeholders, in the frame of committees that are already in place to drive local governance actions.
- i. Get progressively involved in strategic meetings to provide input in terms of restoration possibilities and limits.

2.2 Transformation in Policy

- ACTION 9.** Share field results with local regulatory institutions so that they may facilitate future upscaling actions based on the same approaches.
- ACTION 10.** Propose an evolution of the regulatory framework, allowing to use *Zostera* meadows on oyster farming concessions as donor sites to restore natural areas that could benefit of transplants/seedlings.

Stakeholder collaborations

- ACTION 11.** Promote and increase stakeholder engagement and collaboration.
- i. Provide restoration scenarios with quantified expected benefits that necessarily involve multiple stakeholders, to be compared and assessed.
 - ii. Propose workshops on these scenarios to build a common and shared decision-making process on these restoration topics.
 - iii. Increase collaboration and dissemination from the RESTCOAST project and results among local stakeholders to increase their commitment in the project.
- ACTION 12.** Reinforce the team's position as external experts to gain legitimacy and opportunities to present and share project results.
- i. Highlight restoration benefits in terms of ESS to create a new consensus across local actors to support together restoration actions.

Step 3: Rollout

- ACTION 13.** Implement the identified governance reforms according to the improvement planning.
- ACTION 14.** Continue to collect data through monitoring/modelling on the effectiveness of coastal restoration and integrate findings in communications and outreach efforts.

4.9. NAHAL DALIA (Israel)

Nahal Dalia is a regional fellow Pilot Site which includes coastal marshland and islands for nesting birds. The restoration goal for this project is to restore 30 ha of coastal ecosystems.

Step 1: Baseline status and needs to reach governance goals

- ACTION 1.** Governance Structure: Unclear governance structure which is not coordinated across sectors.
- ACTION 2.** Diversity of Knowledge, Cultures, and institutions: The Governmental water authority encourages water utilities to increase water production (through extraction and desalinisation) in the region, which leads to reduced water level and salinisation and thus negatively impacts the area's natural habitat. Furthermore, the governmental "Water Quality Reform in Fisheries" legislation failed to consider the Nahal Dalia nature reserve as a protected area and ignored its ecologic needs.
- ACTION 3.** Strategic Vision, Learning, and Direction: Need to create a shared vision for stakeholders with conflicting interests, finding ways to work together and build a common vision.
- ACTION 4.** Coordination and Coherence: There is room for improvement in the area of stakeholder management mechanisms given the little resources and time investment available to the Pilot Site.
- ACTION 5.** Grievance and Conflict Resolution: Often conflicts between stakeholders have arisen and there is a need to facilitate effective coalitions between all of the interested parties.

Step 2: Strategic Road Mapping

2.1 Identifying multi-level governance systems

- ACTION 6.** Find new and creative mechanisms to compensate members of the Kibbutz Maagan Michael that have fewer property rights, such as land users (but not owners).

2.2 Transformation in Policy

- ACTION 7.** Promote and increase engagement with the governing committees or regulatory authorities and share lessons-learned regarding possible improvements and integrations of these into policy or regulatory structures.

2.3 Stakeholder collaborations

- ACTION 8.** Improve and develop further stakeholder management. Hire a neutral mediator if needed to aid in setting up a shared vision across conflicting stakeholders and help manage the communications.
- ACTION 9.** Expand stakeholder engagement by connecting with the younger generations of the Kibbutz in an attempt to improve relationships and integrate a greater diversity of stakeholders.
 - i. Increase the number of meetings in the steering committee.
 - ii. Increase and develop an outreach program which improves communications and gives greater visibility to the project.
 - iii. Create a common dialogue on common relevant issues across stakeholders and interested parties.

ACTION 10. Increase transparency and cooperation across stakeholders.

ACTION 11. Determine goals and promote common joint actions on common issues and concerns from interested parties.

Step 3: Rollout

ACTION 12. Implement the identified governance reforms according to the improvement planning. If there are actions that fail or cannot be progressed, re-evaluate returning to minimal work, reducing the interventions to the boundaries of the reservation, within the limits of INPA authority and the legal framework.

5 Discussion

The outline and tools to build a strategic roadmap to drive a transformative governance framework in coastal restoration upscaling at each Pilot Site is provided in this document. The strategies and actions described are aimed to help on identifying how to improve preconditions to successfully implement and maintain upscaled restoration in the Pilots (mainly around decision-making processes) and generate ideas and promote innovation testing, including governance and management innovations within a codesigned governance improvement plan. The steps outlined will help to engage in a dialogue with policy/private sector actors on Pilots, aiming at a practical and possible changes in support towards coastal restoration. They will also facilitate a better integration of the means for successful active/passive restoration of coastal ecosystems and NbS into pan-European policies and international frameworks. Given the wide array of topics that encompass the field of governance, it is not surprising that consolidating all the information collected and integrating it into pre-existing recommendations and proposed actions can have its challenges, especially given the existing diversity across Pilot Sites.

And yet, as previous recommendations were re-evaluated with the Pilot Sites, references and articles on the matter reviewed, and collections of data were processed, certain patterns emerged. Through the SWOT analysis, for example, the majority of data collected seemed to align into 5 recurring common topics:

- Stakeholder engagement and collaboration.
- Administrative and bureaucratic challenges.
- Data and information gaps.
- Public interest and communication.
- Site-specific challenges.

As the review on the Pilot Site performance rates by governance criteria were reviewed, common needs and suggested actions kept repeating themselves, and more often than not they fell into one of those categories. Previous references identifying barriers and enablers to the implementation of the Pilot Sites and for general upscaling of coastal restoration have also aligned in content, with a special mention for the paper *“Barriers and enablers for upscaling coastal restoration”* (Sánchez-Arcilla *et al.*, 2022) which identifies specific governance enablers against restoration barriers to coastal restoration upscaling, and which was used to build the structure of the general strategic and individual road maps. All in all, recurrent themes such as stakeholder engagement and collaboration, the need for administrative support by building trust and credibility, having an active

role in decision-making, and integrating other stakeholders into this effort to later leverage support frameworks appear again and again across the Pilot Sites.

This all brings a positive note to the conclusion of this analysis, highlighting that in spite of the great differences across the Pilot Sites, there are common threats and barriers that all teams face, and this consistency offers the potential implication that these strategies and roadmap scenarios could be used and applied at other coastal restoration sites, following the same principles, criteria and needs identified in this report.

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7 Annexes

Annex 1. Criteria selected to define the status-quo assessment on governance (based on IUCN NbS criterion, IUCN Natural Resource Governance Framework, and the Handbook for Governance of Coastal Wetlands in the Mediterranean).

RESTCOAST CRITERIA FOR GOVERNANCE	SUBCRITERIA
1. Governance structure	1.1. The governance structure is clear, transparent and documented. 1.2. The bodies/institutions that form the government structure are mutually well-coordinated with clear, agreed upon roles and relationships (including across scales). 1.3. Relevant laws and policies that enable (or impede) restoration governance have been clearly identified and considered. 1.4. The actors responsible for the governance of the landscape, seascape and natural resources have the means and capabilities necessary to carry out sustainable management and governance activities, including the equitable sharing of benefits generated from natural resources. 1.5. Restoration and overall governance is based on mutual recognition and representation within the governance structures for the wider coastal zone. 1.6. Institutions responsible for the site understand and support the objectives of restoration with the application of the Nature-based Solutions (NbS) approach. 1.7. The current governance structures directly respond to an evidence-based assessment of the state of the ecosystem, and the prevailing drivers of biodiversity loss and ecosystem degradation. 1.8. Core resources (time and funding) are available to enable long-term shared governance and monitoring of the restoration management actions. 1.9. Clear and measurable outcomes of the governance structures are identified, benchmarked and periodically assessed. 1.10. Transboundary and Cross-border pilot sites - Enabling policies are in place in relevant jurisdictions to allow for shared governance 1.11. Transboundary and Cross-border pilot sites - Effective shared governance regimes are in place across boundaries and borders. 1.12. Transboundary and Cross-border pilot sites - Core resources (time and funding) are available in relevant jurisdictions to enable long-term shared governance and follow up the restoration management.
2. Inclusive and effective decision-making	2.1. Rights-holders and stakeholders at all levels (local landscape/seascape and beyond) that are (directly and indirectly) affected by the governance system have been identified, including the identification of the powerful groups relevant to and the beneficiaries of the governance actions. 2.2. Decision-making regarding the governance of landscape/seascape and natural resources is based on the full and effective participation of all relevant actors, with particular attention to the inclusion of rights-holders and local communities at risk of marginalisation. 2.3. Rights-holders and stakeholders that are (directly or indirectly) affected by the governance system have access to and support for understanding information relevant to the decision-making processes in the application of natural resource governance (e.g. wetland) and restoration. 2.4. Power dynamics in multi-level and multi-stakeholder decision-making processes are equitable, particularly regarding local communities at risk of marginalisation. 2.5. Sufficient financial resources (and time) are available to ensure inclusive and participatory decision-making processes. 2.6. Decision-making processes are based on the knowledge and the capacity of decision-makers who are trusted by rights-holders and stakeholders, including local communities. 2.7. Users of the site and the local community understand and support the goals of the restoration programme. 2.8. Social actors are actively engaged, upholding diversity and gender equity in all aspects of governance.
3. Recognition of tenure rights	3.1. Tenure rights are fair, equitable and clearly defined. 3.2. The governance system includes legal protocols such as laws and/or policies that recognise and respect rights to the landscape, seascape and natural resources. 3.3. Tenure rights include safeguards to ensure rights-holders and stakeholders will not lose land, sea or the natural resources found in these areas. 3.4. Local actors understand, are aware of and freely able to act upon their rights with regards to the landscape, seascape and natural resources.
4. Diversity of knowledge, cultures and institutions	4.1. The governance system is based on sound and diverse forms of knowledge, as well as a respect for diverse cultures, values and practices. 4.2. Governance mechanisms respect and protect diverse cultural values and integrate traditional knowledge in a respectful and appropriate way.
5. Devolution	5.1. The decision-making scale is clearly defined: e.g. single scale (i.e. national or sub-national) or at multi-scale (a national assessment followed by a series of sub-national assessments and vice versa) for the restoration process 5.2. Decision-making processes are inclusive and culturally appropriate in nature, enable full and effective participation and are realised at the lowest possible scale. 5.3. Rights-holders and stakeholders are meaningfully brought together across scales in the decision-making process to ensure decision-making at the lowest possible scale.

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	5.4. Governance processes engage local issues and actors, or clearly address limitations regarding the engagement of local issues and actors.
6. Strategic vision, learning and direction	6.1. The governance system is based on a clearly defined strategic vision and shared objectives that has been developed through inclusive processes and consider the diverse values and forms of knowledge of rights-holders and stakeholders. 6.2. The mechanisms of the governance system and decision-making processes permit adaptation in response to changing situations or acquired knowledge, and considers present and future circumstances. 6.3. The strategic vision of the governance system is regularly monitored.
7. Coordination and coherence	7.1. Governance actions are coordinated across related sectors. 7.2. The actors involved in or with an influence on the governance mechanisms coordinate around a coherent set of strategies and management practices. 7.3. Governance actions are coordinated on both a horizontal scale (actors working at the same governance level) and a vertical scale (actors working at different levels).
8. Accountability	8.1. The accountability roles and relations between the governing actors are clearly defined. 8.2. There are effective accountability mechanisms in place to ensure answerability and the just application of sanctions if necessary.
9. Grievance and conflict resolution	9.1. Past and current conflicts related to the landscape, seascape or natural resources have been identified and their potential effects on governance mechanisms have been evaluated. 9.2. Rights-holders and stakeholders, including vulnerable and marginalised groups, are aware of and have access to impartial and effective mechanisms to resolve conflicts and grievances.

Annex 2. Gulf of Oristano – Background and context for its inclusion in RESTCOAST’s data collection and team collaboration for the governance framework analysis.

The participation of MedSea Foundation in RESTCOAST WP5, specifically with the Gulf of Oristano, is based on providing knowledge and ideas derived from their previous expertise, as outlined in the project’s grant agreement. Therefore, their participation at the [Maristanis project](#) focusing on Oristano coastal wetlands was deemed a relevant asset. This project counts on an advanced governance framework and valuable lessons learned which were considered to be beneficial additions to the analysis work performed within WP5. Information from this site was documented alongside the data collection and analysis conducted at the nine other Pilot Sites of the project.

One of the singular qualities of this case is the establishment of a Coastal Wetlands Contract (CWC), which was one of the most significant outcomes of the Maristanis project aiming to establish integrated management of marine and coastal wetlands of the Gulf of Oristano (Sardinia, Italy). The project area encompasses the coastal system of the Gulf of Oristano, the Marine Protected Area of "Sinis – Isola di Mal di Ventre," and several lagoons, protected by international, national, and local laws and regulations, including 6 Ramsar Sites and 17 Natura 2000 sites. This high-value natural ecosystem provides crucial economic benefits to local communities, primarily through artisanal fisheries and tourism activities. The wetlands of the Gulf of Oristano face various challenges related to the environment, management, and economic activities. Human activities, such as intensive agriculture and extensive aquaculture, along with land-use changes and hydrological alterations, contribute to overexploitation and exacerbate pollution. These activities pose threats to ecosystem health, including coastal erosion, intrusion of salty water, loss of biodiversity, and the invasion of alien species. Climate change further exacerbates these challenges. Management responsibilities are entrusted to 11 small to medium-sized municipalities facing challenges such as insufficient human resources, expertise, and financial resources, coupled with a lack of coordination for strategic and shared management. The CWC serves as a crucial and innovative legal instrument to strengthen the commitment to joint policy action, aiming to overcome the fragmentation of coastal wetlands management and create a new regional protected area, the primary goal of the Action Plan attached to the Contract.

The functioning of the CWC involves a decision-making body composed of the signatories, a technical-operational body to support decisions, and two advisory committees. The implementation process has undergone two main phases: involving public authorities in the first phase and including private stakeholders with social and economic interests in the second phase through an extensive participatory process. The Action Plan, which represents the operative part of the CWC, outlines planned actions, addressing key issues such as environmental restoration, climate change, water quality, hydrological risk, and cultural and landscape promotion. Approximately 50% of the planned actions have already been funded, with the remaining portion expected to be financed through national and regional sources. Among the prioritized actions is the establishment of a Natural Regional Park, for which a participatory process is in progress, involving six of the CWC-participating municipalities. The remaining five municipalities, acknowledging the need for public input, chose not to participate in this phase due to upcoming local and regional political elections. A significant obstacle arises from the opposition of the fishing and agriculture industry, crucial players in the wetlands of the Gulf of Oristano. The main challenge now is to balance fishing and agricultural needs with the conservation and sustainable management of natural resources. It requires a complex harmonization of economic and environmental interests. Another notable tool within the Action Plan is the Local Wetland Observatory (LWO), designed to monitor and provide timely, high-quality information on wetland status and trends, track measures and threats, and identify actions for conservation, sustainable use, and restoration.

In the face of these challenges, the Sardinia Regional government is strongly committed to establish a Regional Natural Park or another authority to guarantee effective and sustainable management of the Gulf of Oristano’s wetlands. The case of Oristano underscores the complexity of reconciling diverse interests, both public and private, to reach an acceptable solution for all involved parties.

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