Ref. Ares(2020)7085169 - 25/11/2020





Deliverable 6.4

D6.4: Policy brief providing input and options for the development of legitimate governance arrangements and effective regimes regulating the conservation, restoration and recovering of marine ecosystems

Marine Ecosystem Restoration in Changing European Seas MERCES

Grant agreement n. 689518

COORDINATOR: UNIVPM

LEAD BENEFICIARY: 8 – Wageningen University

AUTHORS: Paulina Ramírez-Monsalve (AAU), Eira Carballo-Cárdenas (WU), Nelson F. Coelho (AAU), Nadia Papadopoulou (HCMR), Chris Smith (HCMR), Ronán Long (MLOPRS), Jan van Tatenhove (AAU)

SUBMISSION DATE: 23/11/2020

DISSEMINATION LEVEL

| PU | Public – (Po |
|----|--------------|
|----|--------------|

blic - (Policy Brief)

CONTENTS

| 1. | GOVERNANCE OF MERCES: LEGITIMACY ISSUES | 1 |
|-----|---|---|
| 1.1 | 1. Executive summary | 1 |
| 1.2 | 2. SCOPE OF DELIVERABLE 6.4 | 2 |
| 1.3 | 3. Recommendations | 3 |
| | Input legitimacy | 3 |
| | Throughput legitimacy | 3 |
| | Output legitimacy | 3 |
| | Regulatory fragmentation | 4 |
| | Regional institutions | 4 |
| | Active and preventive approach | |
| | REFERENCES | |
| 3. | ANNEXES | 7 |
| 3.2 | 1. ANNEX I – POLICY BRIEF (PDF) [PU[| 7 |

1. Governance of MERCES: legitimacy issues

1.1. Executive summary

This **Policy Brief** is on the development of legitimate governance arrangements regulating the conservation, restoration and recovering of marine ecosystems. The key focus of researchers involved in drafting this document was on understanding the governance and legal factors that may enable and constrain the achievement of European Union Biodiversity Strategy goals.

This **Policy Brief** builds on theoretical work on marine governance, applicable beyond the context of marine ecosystem restoration. Those theories consider the relations between various stakeholders over different activities at sea. In the context of marine ecosystem restoration, researchers applied this theoretical framework to uncover and highlight the interactions and interdependencies of actors involved in restoration activities. Relevant actors are understood as those who are influential in achieving restoration goals, but also those who are impacted by related actions. The existence of incompatible interests in this field stresses the need for legitimately created and maintained governance arrangements. Legitimacy is the acceptance of the political system by actors involved, the outcome of policy processes and the quality of policy making.

The starting point of this **Policy Brief** is that a legitimate governance arrangement is dependent upon the involvement of stakeholders (input legitimacy), the quality of the decision-making process (throughput legitimacy), and the delivering of agreed plans, programs, strategies, and results (output legitimacy). The integration of that finding into the context to marine ecosystem restoration is based on the governance approach developed in the MERCES project. This governance approach consists of three pillars. First, the concept of Marine Restoration Governance Arrangements (MRGA), referring to the temporary stabilization of the marine restoration policy domain in terms of coalitions of actors, discourses, rules of the game and resources. Second, a typology of restoration discourses elaborated around motivations (ecocentric vs. anthropocentric) and modalities varying from active to passive restoration, referring to the level of human intervention in the ecosystem. Restoration discourses present distinct ways of defining the problem of restoration and preferred solutions. Third, a conceptual understanding of uncertainty, which acknowledges three types of uncertainties: incomplete knowledge, unpredictability and ambiguity.

The **Policy Brief** uses the governance framework to analyse the legitimacy of emergent marine restoration governance arrangements (MRGA) in three MERCES case studies, namely the

restoration of fan mussel (*Pinna nobilis*) and red coral (*Corallium rubrum*) in the Mediterranean Sea, and the potential use of decommissioned oil and gas platforms in the North Sea as artificial reefs. In these three cases, researchers have found a gap between national and supra-national institutional responses (top-down approach) – which stress on passive forms of restoration such as closure of areas –and decentralized initiatives (bottom-up approach), which promote active restoration by private and small-scale initiatives such as species transplantation.

The **Policy Brief** then issues a set of recommendations to fill the identified implementation gap, taking into consideration legitimacy issues. These recommendations stress the need to promote inclusion (input legitimacy), transparency and clarity of rules (throughput legitimacy) as well as target setting and delivery of results based on common understanding of restoration, goals and uncertainties (output legitimacy) in MRGAs. The recommendations also expand on the need to tackle regulatory fragmentation, facilitate regional transboundary dialogue and combining prevention with proactive approaches to marine ecosystem restoration. These recommendations aim to guide decision-makers in being aware of all the essential preconditions of legitimacy for MRGAs.

1.2. Scope of deliverable 6.4

Deliverable 6.4 is a policy brief providing input and options for the development of legitimate governance arrangements and effective regimes regulating the conservation, restoration and recovering of marine ecosystems. The policy brief is based upon the research we have done during the MERCES project and focuses more specifically on issues of legitimacy in marine ecosystem restoration governance. During the period December 2018 and October 2020 we have done additional research to understand different types of legitimacy, related to the three cases of D6.3 (North Sea oil and gas decommissioning and the rigs-to-reefs debate; and the fan mussel (*Pinna nobilis*) and red coral (*Corallium rubrum*) restoration in the Mediterranean) [1].

Deliverable D6.4 mentions both the development of legitimate governance arrangements and effective regimes. A regime complex is 'an array of partially overlapping and non-hierarchical institutions governing a particular issue area'. Such a complex would fall somewhere in the middle of a continuum running from fully integrated institutional arrangements at one extreme to highly fragmented collections of arrangements at the other. Examples of regime complexes in the maritime domain are shipping, fishing and oil and gas regimes. Each maritime policy domain has its own institutional dynamic, reflecting the different levels at which sectoral maritime activities are regulated [2]. In our discussion about the set-up of this deliverable we came to the conclusion that the concept of regime complexes as used in political science was not informative

enough to understand the issues of legitimacy in the three cases we researched. We therefore reformulated regime complexes as actors/coalitions (as one of the dimensions of a Marine Restoration Governance Arrangement). As a consequence, our analysis focused on governance arrangements, which incorporates and extends the notion of a regime complex.

Based on the outcome of our research for the 4 deliverables we formulate recommendations in the policy brief.

1.3. Recommendations

Input legitimacy

The EU aims to promote participation in its EU-system for ocean and water governance [3]. In this process, it is crucial that actors who are **influential** in achieving restoration goals, and those who are **impacted** by and **interested** in restoration actions are involved in MRGAs. These actors should be part of defining the problem and formulating potential solutions for it (e.g. what sort of commitment and measures and implementation benefits they bring to the table to achieve the common shared target). Their participation needs to be ensured and strengthened. Considerations need to be made also for those who are **excluded** –or feel excluded. What are the reasons or evidence provided for this exclusion –or feeling of exclusion?

Throughput legitimacy

Procedures for decision-making should be established and followed by actors within the MRGA. **Transparency** (e.g. visibility and understanding of decision-making processes by insiders and outsiders of the MRGA) and clarity of rules (e.g. rules about who is allowed to participate, how decisions are taken and by whom, while stakeholders know their roles and responsibilities) needs to be ensured. Procedures also relate to management of available resources, and to awareness of limiting and supporting factors for achievement of the restoration goals. The wide consultation with Member States and stakeholders planned for 2021 in preparation of the new European Ocean and Water Agency, as well as the European Blue Citizen's Forum [4] should establish procedures guide the various MRGAs forming specific clear to around species/habitats/ecosystems in the various EU regions.

Output legitimacy

A **common understanding** of restoration, of the goal to reach, and of the related uncertainties need to be established within a MRGA [5, 6]. This process requires awareness of the multiplicity of ways in which restoration is conceptualized and practiced, and mechanisms should be in place that facilitate this process. Output legitimacy of governance arrangements not only refers to

achieving restoration goals (producing impact), but also if the results are in accordance with desired plans and programs (outputs), and by the strategies set by the actors (outcomes).

Evaluating the output legitimation of a MRGA is about whether the MRGA achieved what was promised. In other words were the actors able to agree to a common goal, under a common conceptualization and understanding of the problem, did they have the needed resources, and were they able to manoeuvre within the existing rules to reach that promised objective – be it an aspiration, a target, or an ambition. At the Member State level, EU-set targets [3] should provide the benchmark to assess output legitimacy. A shared understanding of ecosystem degradation, recovery and agreement on descriptors and thresholds of change should be reached in order to be able to assess progress towards meeting such restoration targets [6].

Regulatory fragmentation

The findings and conclusions reached based on our work [5, 6, 7] largely converge with the EU Biodiversity Strategy 2030's and Mission Starfish's aims [3, 4]. Part of the planned European biodiversity governance framework [4] should include a set of strategies and instruments that will:

- Facilitate actors within a MRGA to **align** their actions with policy goals associated to restoration;
- Facilitate **registration** of individual initiatives that might be "out of the radar" as they are not responding to a top-down legal obligation;
- Facilitate MRGA to find avenues to "**scale up**" and further their success by achieving a measurable impact beyond their local success.

All and all providing a level of transparency which is now lacking, as well as accountability mechanisms to ensure that Member States are answerable regarding their restoration obligations.

Regional institutions

A gap exists between the existing nature conservation directives and the challenges associated with regional, sub-regional and local implementation and transboundary coordination capabilities for restoration projects within European seas [6]. This finding reveals and highlights that a fragmented institutional setting within the EU governance framework represents a constraining factor to the emergence of legitimate governance arrangements around marine ecosystem restoration. Building on this, the newly proposed high level European approach of the marine biodiversity strategy 2030 should actively facilitate the development of legitimate governance arrangements along regional specificities, while strengthening implementation mechanisms and the links with Regional Sea Conventions to meet the new aspirations and

binding commitments. Furthermore, it is important to facilitate transboundary dialogue between public agencies responsible for management of restoration practices and respective target implementation to ensure national boundaries are not an obstacle to legitimately restoring marine ecosystems.

Active and preventive approach

Among the conditions that will enable *active* restoration are:

- The presence of "drivers of change" (e.g. species decline, or a mass mortality event);
- Appearance of new actors which would (re)define and propose alternative ways of addressing the problem;
- Discovery of new scientific evidence on marine ecosystem restoration;
- Enthusiastic willingness of volunteers.

Among the conditions that will enable the institutionalization of *active* MRGA are [3, 5]:

- Legally binding targets and a restoration prioritization framework;
- An institutional framework that will respond to shocks (i.e. mass mortality events);
- A regional plan that will prompt scaling-up of active restoration actions.

It is important to be aware that a much stronger emphasis on restoration – compared to prevention, might see the emergence of short-term interests characterized by "no prevention now because we will restore later". *Preventive and proactive approaches* should be combined; restoration is not presented as an alternative for prevention but rather as an additional approach to meet biodiversity conservation and recovery goals [8].

2. References

- 1. Ramírez-Monsalve, P. et al., Marine Restoration Governance Arrangements: Issues of legitimacy. Submitted to *Environmental policy and governance*
- 2. Van Tatenhove, Jan P.M (2019). Regulatory Mixes in Governance Arrangements in (Offshore) Oil Production: Are they smart? In: J. Van Erp, M. Faure, A. Nollkaemper, & N. Philipsen (Eds.), *Smart Mixes for Transboundary Environmental Harm*, pp. 309–326. Cambridge: Cambridge University Press,
- EC (2020). European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. *EU Biodiversity Strategy for 2030. Bringing nature back into our lives*. COM(2020) 380 final. Brussels, 20.5.2020 <u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0380</u>
- 4. Lamy et al (2020). Mission Starfish 2030: Restore Our Ocean and Waters. https://op.europa.eu/s/onTH
- 5. Van Tatenhove, J. P. M., P. Ramírez-Monsalve, E. Carballo-Cárdenas, N. Papadopoulou, C. J. Smith, L. Alferink, K. Ounanian, and R. Long. (2020). The Governance of Marine Restoration: Insights from Three Cases

in Two European Seas. Restoration Ecology.

- Carballo-Cárdenas, E., J. van Tatenhove, N. Papadopoulou, C. Smith, K. Ounanian, P. Ramírez-Monsalve, A. Delaney, and R. Long. (2018). D6.3. Review on Restoration, Conservation and Recovery of Marine Ecosystems in the Four Regional EU Seas. MERCES Project. 110 pp.
- Ounanian, Kristen, Eira Carballo-Cárdenas, Jan P. M. van Tatenhove, Alyne Delaney, K. Nadia Papadopoulou, and Christopher J. Smith. (2018). Governing Marine Ecosystem Restoration: The Role of Discourses and Uncertainties. *Marine Policy* 96:136–44.
- 8. Bastmeijer, K. (2016). Ecological Restoration in International Biodiversity Law: A Promising Strategy to Address Our Failure to Prevent? In: Bowman, M., P. Davies, and E. Goodwin (eds.), *Research handbook on biodiversity and law*,. Edward Elgar Publishing Limited.

3. ANNEXES

3.1. Annex I – Policy brief (pdf) [PU[

LEGITIMATE AND EFFECTIVE MARINE RESTORATION GOVERNANCE ARRANGEMENTS

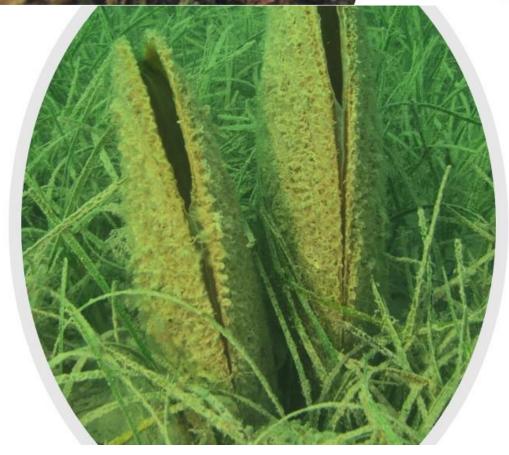












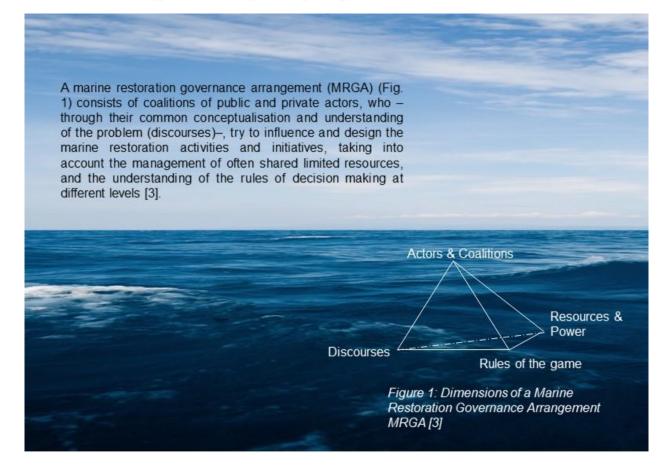
INTRODUCTION

Achieving the goal to restore Europe's oceans and waters as stated in the *EU Nature Restoration Plan* and *Mission Starfish* 2030 of the *EU Mission areas Healthy oceans, seas, coastal and inland waters* [1,2] requires deep understanding of the social dimensions that would enable and constrain such transformation [3,4].

Aside from ecological knowledge, effective implementation of marine restoration requires sound governance. Marine governance is defined as "the sharing of policy making competencies in a system of negotiation between nested governmental institutions at several levels (international, (supra)national, sub-national) on the one hand and state actors, market parties and civil society organizations of different maritime activities on the other in order to govern activities at sea and their consequences" [5: 95]. This encompasses the understanding of the interactions and interdependencies between actors who are involved in restoration activities.



To reach the EU's ambitious goals to get biodiversity on the path to recovery in the coming decade, *the EU Biodiversity Strategy for 2030* calls for participation by all segments of society [1]. Due to the diversity of stakeholders and their potentially incompatible interests, it is key to ensure *legitimate* marine restoration governance arrangements (MRGA) are created and maintained.





THE PROBLEM

The world is not on track to meet the majority of its biodiversity goals, and the outlook for 2030 and 2040 is grim [6]. The *EU Green deal* pledges for the EU to "lead the world" in international negotiations on biodiversity [1]. To this end, the European Commission will propose legally binding EU nature restoration targets in 2021. This call requires protecting 30% of the EU territory by 2030, and to restore degraded ecosystems at land and sea. Although restoration targets will only be agreed by 2021, action lines do exist to guide the process.

Restoration ambitions are now in high position on the political and policy agendas. It is imperative to understand the governance conditions that enable and constrain realizing these restoration aspirations in practice. For example, the implementation of restoration policies is dependent on the involvement of national and local actors. Important as well is that restoration activities are considered legitimate by relevant actors. Legitimacy refers to the acceptability of policy and decision-making. It also concerns aspects that go beyond legality. It concerns acceptance (and compliance) of rules that correspond to moral principles.



Seagrass restoration in the Dutch Wadden Sea: volunteer day 2018.

Relevant actors are understood as those who have an impact on the achievement of the restoration goal, but also those who are impacted by related actions

"In general, legitimacy refers to the acceptance of the political system by citizens, the outcome of policy processes and the quality of policy making. More specifically, legitimacy refers to the notion or perception that the actions and products of a certain entity are wished for and in accordance with a socially constructed set of norms, values, principles and definitions" [5: 91].

This policy brief is a guide for decision-makers to be aware of essential pre-conditions of legitimacy for marine restoration governance arrangements (MRGA).

THE MERCES GOVERNANCE APPROACH

MERCES governance and legal work package aimed to understand the enabling and constraining conditions to effectively govern marine restoration practices.

• A typology of marine restoration discourses was built based on two questions: *why restore*? (eco-centric vs anthropocentric motivations), and *how to restore*? (modality and level of human intervention in nature), varying from *passive* restoration, to *active* restoration [7].

• Restoration *discourses* were identified (Fig. 2), each presenting distinct ways of defining the problem and the preferred solutions [7].

• The analytical framework of *uncertainty* was used to explore issues of legitimacy. Acknowledgment of these three types of uncertainties, originating from not knowing enough and knowing differently, assist in devising strategies to deal with the uncertainties in restoration governance settings [7].

Three types of uncertainty are relevant with respect to governing marine ecological restoration:

Incomplete knowledge, Unpredictability, and Ambiguity.

While the first two types deal with 'not knowing enough', the third type refers to 'knowing differently' [4,7]

OUR FINDINGS

Different meanings of restoration

Restoration is understood in different ways by different actors. Conceptual confusions exist with respect to terms tangential to restoration (recovery, reconstruction, regeneration, rehabilitation, environmental repair). These terms require looking instead at the degree of intervention by humans (low to high), and to what or whom is served by restoration (eco-centric – anthropocentric) (Figure 2) [7].

Restoration can be seen as a spectrum going from low human intervention (passive restoration), to high human intervention (active restoration). The first relates for example to spatial closures to allow for species natural recovery, the latter refers for example to species translocations [7].

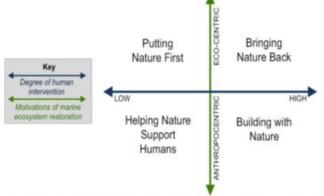


Figure 2:Discourses of Marine Ecosystem Restoration based on the degree of human intervention (x-axis) and the motivation underlying the intervention (y-axis) [5].

OUR FINDINGS

Institutionalization of "active restoration" in the EU

Reaching the goals of reducing and reversing biodiversity loss would need *passive* restoration to be complemented by *active* restoration. While *passive* restoration is institutionalized and embedded in EU regulation, *active* restoration requires uptake and institutionalization, especially at the regional level [3].

Marine restoration in the EU falls within the purview of 'top-down' governance arrangements (e.g. Regional Sea Conventions, Regional Fisheries Management Organizations, and EU nature directives) which emphasizes *passive* forms of restoration such as a closure of areas to allow for species natural recovery. Alongside this top-down approach, bottom-up governance arrangements driven primarily by scientists, usually with support from volunteers and other stakeholders, focus on *active* restoration initiatives (e.g. species transplantations).

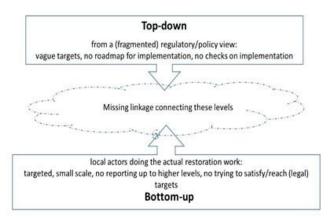


Figure 3: Current approaches for marine restoration in the EU

A linkage between the top-down and the bottom-up restoration governance arrangements is lacking (Fig. 3). To fill this implementation gap, a process of institutionalization of restoration governance arrangements at different levels needs to take place [3].



RECOMMENDATIONS

Legitimacy of Marine Restoration Governance Arrangements

A legitimate governance arrangement is dependent upon the involvement of stakeholders (input legitimacy), the quality and transparency of the decision-making process (throughput legitimacy), and the delivering of agreed plans, programs, strategies, and realized results (output legitimacy).

Promoting input legitimacy in a MRGA

The EU aims to promote participation in its EUsystem for ocean and water governance [1]. In this process, it is crucial that actors who are influential in achieving restoration goals, and those who are impacted by and interested in restoration actions are involved in MRGAs. These actors should be part of defining the problem and formulating potential solutions for it (e.g. what sort of commitment and measures and implementation benefits they bring to the table to achieve the common shared target). Their participation needs to be ensured and strengthened. Considerations need to be made also for those who are excluded -or feel excluded. What are the reasons or evidence provided for this exclusion -or feeling of exclusion?

Promoting output legitimacy

A common understanding of restoration, of the goal to reach, and of the related uncertainties need to be established within the MRGA [4]. This process requires awareness of the multiplicity of ways in which restoration is conceptualized and practiced, and mechanisms should be in place that facilitate this process. Output legitimacy of governance arrangements not only refers to achieving restoration goals (producing impact), but also if the results are in accordance with desired plans and programs (outputs), and by the strategies set by the actors (outcomes).

Evaluating the output legitimation of a MRGA is about whether the MRGA achieved what was promised. In other words were the actors able to agree to a common restoration goal, under a common conceptualization and understanding of the problem, did they have the needed resources, and were they able to manoeuvre within the existing rules to reach that promised objective be it an aspiration, a target, or an ambition. At the Member State level, EU-set targets [1] should provide the benchmark to assess output legitimacy. A shared understanding of ecosystem degradation, recovery and agreement on descriptors and thresholds of change should be reached in order to be able to assess progress towards meeting such restoration targets [4].

Promoting throughput legitimacy

Procedures for decision-making should be established and followed by actors within the MRGA. **Transparency** and **clarity of rules** need to be ensured. Procedures also relate to management of available **resources**, and to awareness of limiting and supporting factors for achievement of the restoration goals. The wide consultation with Member States and stakeholders planned for 2021 in preparation of the new *European Ocean and Water Agency*, as well as the *European Blue Citizen's Forum* [2] should establish clear procedures to guide the various MRGAs forming around specific species or ecosystems in the various regional EU seas.



European biodiversity governance framework: an umbrella for existing fragmented approaches

The findings and conclusions reached based on our work [3,4,7] largely converge with the EU Biodiversity Strategy 2030's and Mission Starfish's aims [1,2]. Part of the planned European biodiversity governance framework [1] should include a set of strategies and instruments that will:

 Facilitate actors within a MRGA to align their actions with policy goals associated to restoration;

• Facilitate **registration** of individual initiatives that might be "out of the radar" as they are not responding to a top-down legal obligation;

 Facilitate MRGA to find avenues to "scale up" and further their success by achieving a measurable impact beyond their local success.

All and all providing a level of **transparency** which is now lacking, as well as **accountability** mechanisms to ensure that Member States are accountable regarding their restoration obligations.

3



Enhancing the functioning of regional institutions

A gap exists between nature conservation directives and the challenges related to the implementation at national and local level and transboundary coordination capabilities for restoration projects at the level of European seas [4]. This finding reveals and highlights that a fragmented institutional EU governance setting represents a constraining factor to the emergence of legitimate MRGA. Building on this, the newly proposed high level European approach of the marine biodiversity strategy 2030 should actively facilitate the development of legitimate governance arrangements along regional specificities, while strengthening implementation mechanisms and the links with Regional Sea Conventions to meet the new aspirations and binding commitments. Furthermore, it is important to facilitate transboundary dialogue between public agencies responsible for the management of restoration practices and respective target implementation to ensure national boundaries are not an obstacle to legitimately restoring marine ecosystems.

Promoting active restoration

Among the conditions that will enable active restoration are:

 The presence of "drivers of change" (e.g. shock events as mass mortality of species);

 Appearance of new actors which would (re)define and propose alternative ways of addressing the problem;

Discovery and uptake of new scientific evidence

- on marine ecosystem restoration;
- Enthusiastic volunteers

Among the conditions that will enable the institutionalization of *active* MRGA are [1,3]: • Legally binding targets and a restoration

prioritization framework;

 An institutional framework that will respond to shocks events;

 A regional plan that will prompt scaling-up of active restoration actions.

Restoration linked to prevention

Preventive and proactive approaches should be combined; restoration is not presented as an alternative for prevention but rather as an additional approach to meet biodiversity conservation and recovery goals [8].



REFERENCES

 EC (2020), European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. EU Biodiversity Strategy for 2030. Bringing nature back into our lives. COM(2020) 380 final. Brussels, 20.5.2020 https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX:52020DC0380

2. Lamy et al. (2020), Mission Starfish 2030: Restore Our Ocean and Waters. https://op.europa.eu/s/onTH

 Van Tatenhove, J. P. M., P. Ramírez-Monsalve, E. Carballo-Cárdenas, N. Papadopoulou, C. J. Smith, L. Alferink, K. Ounanian, and R. Long. (2020), The Governance of Marine Restoration: Insights from Three Cases in Two European Seas. *Restoration Ecology*. https://doi.org/10.1111/rec.13288

 Carballo-Cárdenas, E., J. van Tatenhove, N. Papadopoulou, C. Smith, K. Ounanian, P. Ramírez-Monsalve, A. Delaney, and R. Long. (2018), D6.3. Review on Restoration, Conservation and Recovery of Marine Ecosystems in the Four Regional EU Seas. MERCES Project. 110 pp.

 Van Tatenhove, Jan. (2011), Integrated marine governance: questions of legitimacy. Mast 10, no. 1 (2011): 87-113.

6. EEA (2020). State of the Environment Report 2020, European Environmental Agency.

 Ounanian, Kristen, Eira Carballo-Cárdenas, Jan P. M. van Tatenhove, Alyne Delaney, K. Nadia Papadopoulou, and Christopher J. Smith. (2018), Governing Marine Ecosystem Restoration: The Role of Discourses and Uncertainties. *Marine Policy* 96:136–44.

 Bastmeijer, K. (2016), Ecological Restoration in International Biodiversity Law: A Promising Strategy to Address Our Failure to Prevent? In: Bowman, M., P. Davies, and E. Goodwin (eds.) Research handbook on biodiversity and law. Edward Elgar Publishing Limited.

FIND OUT MORE



WP6 Deliverables

Ounanian, K. et al. (2017), MERCES D6.1 Marine Ecosystem Restoration in Changing European Seas. MERCES.

Long, R. (2017), MERCES D6.2 Review of current EU and international legal frameworks.

Carballo-Cárdenas et al. (2018), MERCES D6.3. Review on Restoration, Conservation and Recovery of Marine Ecosystems in the WP6 peer-reviewed journal articles Four Regional EU Seas.

Ramírez-Monsalve, P. et al. (2020), MERCES D6.4. Policy brief providing input and options for the development of legitimate governance arrangements regulating the conservation, restoration and recovering of marine ecosystems.





Ounanian, K. et al. (2018), Governing marine ecosystem restoration: The role of discourses and uncertainties. Marine Policy 96: 136-44. https://doi.org/10.1016/j.marpol.2018.08.014

Ounanian, K. et al. (2020), Midnight at the Oasis : Does Restoration Change the Rigs-to-Reefs Debate in the North Sea? Journal of Environmental Policy & Planning, 22(2): 211-225. https://doi.org/10.1080/1523908X.2019.1697657

Van Tatenhove, J. et al. (2020), The governance of marine restoration: Insights from three cases in European Seas. Restoration Ecology. https://doi.org/10.1111/rec.13288

Smith, C. et al., Marine restoration in the Mediterranean: Red coral and fan mussel discourses, uncertainty and reaching restoration targets. Marine Policy. Resubmitted.

Ramírez-Monsalve, P. et al., Marine Restoration Governance Arrangements: Issues of legitimacy. Submitted to Environmental policy and governance.

COPYRIGHT INFORMATION

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 689518.

This output reflects only the authors' view and the European Union cannot be held responsible for any use that may be made of the information contained therein.

Photo credits:

Cover image: Red coral, Mediterranean Sea Page 2 image: Fan mussel, Mediterranean Sea Page 3 Image Page 4 image Page 5 image: Seagrass restoration, Wadden Sea Page 6 image: Seagrass, Mediterranean Sea Page 10 image : Oil field structure and cod, North Sea Page 14 image: Fan mussel, Mediterranean Sea Page 15, Fan mussel, oil field structure Page 16 image, Underwater

Joaquim Garrabou/ICM, Spain Mirko Belosevic/CROREEF, Croatia European Commission 2020 **MERCES** template Mariëtte Reus, Netherlands Damedias/Adobe Stock Daniel Jones / National Oceanography Centre, UK Silvija Kipson/Univ. of Zagreb, Croatia Silvija Kipson, Daniel Jones Photogoricki / Adobe Stock

