



Report and policy guidelines for a more effective implementation of EU and international policies

Deliverable n° D.5.3

May 2023

Citation: MOVE-ON project (2023), European Commission Directorate General Environment Grant Agreement no. 07.027735/2019/808239/SUB/ENV.D2. Deliverable D.5.3 - Report and policy guidelines for a more effective implementation of EU and international policies.

Coordinated by:



Partners:



Supported by:



This project has received funding from the European Union represented by European Commission Directorate General Environment under grant agreement N° 07.027735/2019/SI2.808239/SUB/ENV.D2. This document only reflects the views of its authors. The Commission is not responsible for any use that may be made of the information it contains.

Project Acronym	MOVE-ON
Project Title	From case studies to anchor projects - setting the ground to advance MAES in Europe's overseas.
Grant Agreement n°	07.027735/2019/808239/SUB/ENV.D2
Start of the project	May 2020
Duration	36 months
Project coordinator	Regional Fund for Science and Technology, Regional Government of the Azores (Portugal)
Website	www.moveon-project.eu

Deliverable title	Report and policy guidelines for a more effective implementation of EU and international policies
Deliverable n°	D.5.3
Activity title	Activity 5 – Developing and Disseminating Good Practice Guidelines and Policy Recommendations
Task title	Task 5.3 – Production of a specific series of policy guidelines for an effective implementation of EU and International Policies and Goals
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Due date of deliverable	31/05/2023
Actual submission date	24/05/2023
Dissemination Level:	Public

Version	Status	Date	Author(s)
1.0	Draft	22/03/2023	<i>Gianluca Ferraro, Ewan Trégarot (UoP)</i>
1.2	Feedback, input and contribution	11/05/2023	<i>Ina Sieber (LUH), Cathleen Cybèle (NEXA), Tara Pelembe (SAERI), Carolina Parelho (FRCT).</i>

Summary

The report defines suitable ways for the implementation of key policies regarding biodiversity and climate change in the Outermost Regions (ORs) of the European Union (EU) and the Overseas Territories (OTs) of the United Kingdom (UK). The report defines a set of policy guidelines that address key challenges of the ORs and OTs regarding an effective execution of EU and International policies and goals. These guidelines build on the successful implementation of existing policies and projects (using key success factors with explanations). They also provide recommendations for institutional arrangements taking into account the territorial specificities. The work has benefitted from the insights of policy-makers and practitioners, EU and International agencies representatives in charge of the implementation of key policies and goals, as well as MOVE-ON partners. The report wants to offer suggestions for better policy implementation to stakeholders in the various regions and territories. It also aims at providing clear information to EU and International representatives on how they can improve their policy support (e.g., through financial and technical means).

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1. INTRODUCTION

The European overseas entities have in place legislation, strategic documents and policy interventions to tackle biodiversity loss and climate change in compliance with international as well as EU commitments where applicable.

In the context of the MOVE-ON Project, European overseas entities include Outermost Regions (ORs) of Member States (MS) of the European Union (EU) and one of the Overseas Territories (OTs) of the United Kingdom (UK), i.e. Saint Helena.

In this report we refer to MSs of the EU and to Saint Helena as “national” level of governance.

To define “regional” across such different institutional contexts within the EU, we rely on the “Nomenclature of territorial units for statistics” of the EU¹. In this report, “regions” are then understood as the ‘basic regions for the application of regional policies’ or NUTS 2 level. They include the Azores (for Portugal), the Canary Islands (for Spain), French Guiana and the Reunion island (for France). These political and administrative entities are also represented in the Committee of the Regions of the EU.

Whenever the term region is used with an international geo-political connotation (e.g., sea basins or transnational areas), this will be specified in the text. The report also uses “subnational” as a more general term that refers to all levels of state organisation below the Centre, both regional and local ones. With “local”, it means sub-regional levels.

In the case of the Outermost Regions (ORs) of the European Union (EU), these regions have different degrees of legislative autonomy depending on their national constitutional setting. Indeed, they can adopt regional laws – to complement the national legal frameworks² – in Spain and Portugal, but can only issue regional strategic schemes in France.

¹ Source: <https://ec.europa.eu/eurostat/web/nuts/background> (last access: 11.05.2023).

² While global, EU and national policies apply to ORs once adopted by their MS, the ratification of international conventions (e.g., CBD) by a European country does not automatically extend to its OCTs. Similarly, EU policies (that are applicable in ORs) do not regulate OCTs. Even national strategies (for instance for biodiversity) adopted by central governments in Europe do not always fully cover OCTs.

The Overseas Territories (OTs) of the United Kingdom (UK) adopt their own legal and regulatory measures and implement them through small national and local administrations. They have never been bound to the EU law.

In Deliverable 5.1 (D.5.1 – Implementation of EU and International policies for biodiversity and climate change), we explained that several international targets identified across different international policy documents (see Annex 1 in this report) could be grouped into four major “themes” that have structured our implementation analysis: A) national (and regional) legislation; B) national (and regional) strategies; C) specific policy measures; D) and funding.

At the conclusion of D5.1 (chapter 7), we also identified six recurrent – if not common to all the cases analysed – challenges in the Implementation of EU and International policies for biodiversity and climate change:

- Priorities on the political agendas;
- Coherence across policies;
- Administrative complexity;
- Resources allocation;
- Data availability;
- Conflicting interests.

Table 1 brings together these themes with an additional one on information and participation that has merged during the elaboration of these policy recommendations. Similarly, other challenges have been added: management plans and enforcement; management measures; resources allocation and regional cooperation.

This report addresses these challenges and provides policy recommendations to overcome them. In order to structure the policy guidelines that represent the object of this report, we have put the challenges in relation with the major themes investigated during the implementation analysis (D5.1). Table 1 summarises the key policy recommendations for each challenge identified.

After providing conceptual and methodological clarifications, the next three chapters explain in detail a set of policy guidelines for:

- the policy framework (chapter 2),
- the management (chapter 3)
- and the decision-making process (chapter 4).

Chapter 5 concludes this report with final remarks.



Table 1: Summary table of themes, implementation challenges and policy recommendations

Theme of the implementation analysis	Challenge as identified in D5.1	Recommendation and section in this Report
LEGISLATION AND STRATEGIES	Priorities on the political agendas	Recommendation 1: Align national and subnational policy agendas by taking into account both international commitments and local priorities. □ SECTION 2.1
	Coherence across policies	Recommendation 2: Adopt regional (or national) strategies to enhance policy coherence around biodiversity conservation and climate change at the territorial level. □ SECTION 2.2
	Administrative complexity	Recommendation 3: Improve centre-local administrative coordination in multi-level systems of governance. □ SECTION 2.3
MEASURES AND FUNDING	Management plans and enforcement	Recommendation 4: Enhance management through the adoption of management plans and stronger enforcement. □ SECTION 3.1
	Management measures	Recommendation 5: Ensure adequate protection of ecosystems. □ SECTION 3.2
	Resources allocation	Recommendation 6: Increase resource allocation to enhance the administrative capacity. □ SECTION 3.3

INFORMATION AND PARTICIPATION	Data availability	Recommendation 7: Improve the provision and use of scientific knowledge in decision-making. <input type="checkbox"/> SECTION 4.1
	Regional cooperation	Recommendation 8: Promote regional cooperation and strengthen regional mechanisms of coordination among European overseas entities. <input type="checkbox"/> SECTION 4.2
	Conflicting interests	Recommendation 9: Strengthen public engagement. <input type="checkbox"/> SECTION 4.3



1.1. Effectiveness, implementation and effective implementation of EU and international policies

Policy decisions adopted at the International level by international organisations (e.g., UN) or regional institutions (e.g., the EU) are intended to generate a chain of effects. First, they demand regulatory and organisational efforts (or “outputs”) from the national governments that decided to adopt them. Second, they are meant to produce behavioural changes (“outcomes”) in the states and the national actors targeted by international provisions. Third, they aim at improving the problem they address (“impact”), e.g. environmental protection and biodiversity conservation (Breitmeier et al. 2006). It follows that the effectiveness of international policies can be defined at these different levels.

First, an international policy can be effective at the level of outputs when states adopt laws and regulations in line with international commitments (i.e. legal compliance) (Chayes & Chayes 1993; Vogler 2000). Outputs include, indeed, all legislative and regulatory activities induced by international commitments, in terms of transposition of international obligations into national laws – or “enactment” – and administrative “execution” of derived national laws through administrative rules and actions (Breitmeier et al. 2006; Jacobson & Brown Weiss 2000). Enactment implies the elaboration of new national legal acts or the amendment of existing laws. In other words, international commitments need to be converted into domestic policies before they can be executed. The failure of national governments to transpose international agreements is the first cause of the bad implementation of international policies.

Second, an international policy is effective at the level of outcomes if its target groups (e.g., governmental agencies, corporations, civil society organisations and individuals) conform with the behaviours prescribed by the international commitments (and the derived national laws and regulations) (Brown Weiss & Jacobson 2000; Victor et al. 1998). Even when international obligations have been transposed, many sovereign states fail to execute and enforce international provisions, thus compromising any success in terms of change of behaviours in the target population (Vedung 2006; Winter 2006). “Enforcement” consists of administrative actions (e.g., rewards and sanctions) to promote behaviours that comply with international commitments and national prescriptions (Breitmeier et al. 2006; Victor et al. 1998).

Third, the effectiveness of international policies can consist of the capacity they have to solve a problem (e.g., biodiversity loss); this type of effectiveness relates to impacts (Andresen et al. 1995; Hall 1998).

These three levels of effectiveness are intertwined, with each single level connected to and deriving from the previous one(s). To solve a problem (impact), for instance as improvement in the quality of the environment, international policies need to channel behaviours (outcomes) through national actions (outputs) in such a way as to eliminate or ameliorate the problem addressed (Young & Levy 1999). Environmental effectiveness depends, thus, on legal and behavioural compliance (or institutional effectiveness) (Oberthür and Gehring 2006). It follows that the only way international policies can contribute to the improvement of the environment is by pushing national governments to adopt policies against environmental degradation that will direct (in a sustainable way) the behaviours of national actors in their relations with the environment (Young 1999). In other words, international obligations can be effective and solve the problem they address only if they are voluntarily incorporated by states into national legislations. Then, they need to be applied and enforced in areas that follow completely under national jurisdiction to modify individual and collective behaviours (Hagerman & Pelai 2016; Vogler 2000). To sum up, there can be no effectiveness without compliance, and no compliance without a smooth process of national implementation.

In Public Policy, policy implementation is the process that executes policy decisions to achieve the objectives those decisions contain (Hupe & Hill 2006). Objectives indicate the desirable situation a public policy tries to achieve (Gysen et al. 2006). In the case of international policies, implementation translates international commitments into action at the national level with the aim of steering national actors towards the behaviours prescribed by those commitments (Hanf 2000; Victor et al. 1998). In the process of national implementation of international policies, we can distinguish four phases:

- the transformation of international commitments into national legislation (outputs), or enactment³;
- the exercise of national legislation in the national administrative system through administrative decisions, programmes, actions, etc. (outputs), or execution;

³ In the case of international agreements of hard law (hence, legally binding), this phase is preceded by the ratification, i.e. the acceptance of international agreements through national parliamentary procedures (Andresen et al. 1995).

- the relationship between regulators and target groups, and the target groups' response to regulation (outcome);
- the consequence of target groups' response for the physical problem at hand (impact) (Andresen et al. 1995).

All these aspects have been taken into due account for the collection of information, the analysis of data and the development of the policy guidelines presented in this report.

1.2. Methodology

This report heavily relies on Deliverable 5.1 of the MOVE-ON Project, i.e. "Implementation of EU and International policies for biodiversity and climate change". In addition to the insights developed during the analysis presented in that report, we have included additional data here. Such data were mainly collected through document analysis and during our set of research interviews.

Documents included both primary and secondary sources. Although data collection both in terms of document analysed and stakeholders interviewed has varied (in depth and breadth) for the different cases studied, initial useful information on most cases came from reports issued by international governmental and non-governmental organisations (e.g., IUCN and OECD), national and subnational agencies (e.g., DEFRA and IEDOM). Studies undertaken with the financial support of EU funding programmes (e.g., BEST) have also been used during data collection (e.g., Tanguy et al. 2017).

We have also looked into the official acts produced by the public authorities of the different countries and territories involved in the MOVE-ON Project for national and subnational legislation, strategic documents, plans and programmes.

Academic literature, mainly from the disciplinary field of the implementation studies, has also been used when needed for the purpose of clarifying important concepts or expanding and supporting our arguments with stronger explanatory notes.

We have followed a funnel approach in the selection of the relevant documents. We started our analysis and reflections from the broader field of environmental

governance and, later, focused on two specific streams within this realm, i.e. policy interventions for the protection of biodiversity and tackling climate change.

For the most recent policy developments in these areas of investigation in the various territories, empirical data were also searched, found, and cross-checked through internet websites, as indicated in the text of this report.

Primary sources of data also included semi-structured interviews. Several state/governmental and non-state/non-governmental organisations were contacted for interviews at several levels of governance including the international as well as the national and subnational levels in the five territories investigated in the framework of the MOVE-ON Project.

Due to the COVID-19 pandemic, some interviews were conducted online. Content analysis was carried out on interviewers' notes and combined with interviews' transcripts generated automatically for online interviews (when available). Interviewees' answers were encoded, systematised, cross-checked, and connected to present a valid and comprehensive picture of the findings.

In the different organisations we contacted, most interviewees were "those at the top", i.e., key informants knowledgeable about the processes investigated in this study (Moyser 2011). In other words, data collection has included "elite interviewing". Elite is defined as 'a group of individuals who hold, or have held, a privileged position in society and, as such [...] are likely to have had more influence on political outcomes than general members of the public' (Richards 1996: 199). Interviewees were chosen for the position that they (had) covered. 'It is often the case that such individuals have unique experiences as "insiders", enabling them to comment upon events or evidence' (Moyser 2011: 85). Indeed, the purpose of this study was to investigate aspects of events and processes that only specific people would know about.

Elite individuals are important repositories of unique experiences. A major problem in elite interviewing is that the interviewee(s) may have an interest in distorting the information provided. However, the information provided by elite interviewees was triangulated through cross-checks across the scripts of the different interviews and by means of other sources of data (e.g., documents and internet websites). This has strengthened the reliability of our data collection and analysis.

As argued by Mosley (2013: 11), 'converting interview transcripts and answers into more discrete concepts and categories always involves some type of interpretive work'. However, the contents have been validated by experts in the field from the different case studies.

Finally, a validation workshop was organised in April 2023 in collaboration with the five territories taking part in the MOVE-ON Project. The purpose of this workshop was to check, update and upgrade the content of the drafted report before its publication.

2. POLICY FRAMEWORK: LEGISLATION AND STRATEGIES

The national legislative and regulatory frameworks adopted by the Member State (MS) of the European Union (EU) such as France, Spain and Portugal usually also apply to their Outermost Regions (ORs). Likewise, the EU law and Multilateral Environmental Agreements (MEAs) are enacted by national governments and legislatures through the adoption of national laws that apply to the entire territory of the country with few exceptions. For instance, the Nature Directives do not apply to the French ORs.

France has complied with key international and EU documents for biodiversity conservation and climate change. The country has adopted both national legislations and national strategies for biodiversity conservation, including the marine environment, and climate change (table 2). These national laws and strategies have been complemented by regional strategic documents in some cases. Although French regions have no law-making power (except in some specific domains), they can issue strategic documents. However, these policy developments at the regional level take a different pace across the various regions of France. For instance, **Reunion** has issued a number of regional strategies, while **French Guiana** still lags behind in the development of strategic documents (table 2).

In **Spain**, the national policy framework sets targets and boundaries for the 17 *Comunidades Autónomas* of the country. The laws and strategies adopted by Spain comply with the international and EU obligations for biodiversity conservation, the protection of the marine environment and climate change (table 2). Unlike the French regions, all *Comunidades Autónomas* of Spain have the power to adopt legislative instruments in addition to the national acts. In the **Canary Islands**, regional laws for biodiversity and climate change are envisaged but have not been issued yet (table 2).

Portugal's national policy framework for both biodiversity and climate change also applies to the **Azores**. Indeed, the two archipelagos of Azores and Madeira are Portuguese autonomous regions. They have their own regional governments and parliaments. They are responsible for the political and administrative decisions in all sectors with the only exception of defence and foreign affairs (Madruga et al. 2016; Menini et al. 2018). In addition to the national policy and legal instruments, the two autonomous regions have their own acts for the management of biodiversity

conservation (Benzaken & Renard 2011). The Azores has also adopted a regional legal framework for the conservation of nature and biodiversity (Interview file AZ-1). However, the country still lacks a national law governing climate change (table 2).

The institutional arrangements for the case of the Overseas Territories (OTs) of the United Kingdom (UK) are very different from the constitutional status of the ORs of the EU MSs. The OTs are not regions of the UK but largely self-autonomous territories. Although **Saint Helena** still lacks a National Biodiversity Strategy, a law on Climate Change and an adaptation plan, it has partly developed its legal framework for biodiversity protection, the marine environment and climate change (table 2).

In relation to the overall national and regional policy framework, three policy recommendations have been elaborated as a result of our field research:

- *Recommendation 1: Align national and subnational policy agendas by taking into account both international commitments and local priorities (Section 2.1).*
- *Recommendation 2: Adopt regional (or national) strategies to enhance policy coherence around biodiversity conservation and climate change at the territorial level (Section 2.2).*
- *Recommendation 3: Improve centre-local administrative coordination in multi-level systems of governance (Section 2.3).*

Contextualisation for these recommendations is provided in the following sections.



Table 2: The policy framework for biodiversity conservation and climate change in Reunion, French Guiana, the Canary Islands, the Azores and Saint Helena

PERFORMANCE INDICATORS AND REFERENCE		Reunion (France)	French Guiana (France)	Canary Islands (Spain)	Azores (Portugal)	Saint Helena
A. LEGISLATION	<i>Biodiversity conservation</i> CBD	- Loi n°2016-1087 pour la reconquête de la biodiversité, de la nature et des paysages	- Loi n°2016-1087 pour la reconquête de la biodiversité, de la nature et des paysages	- Law 42/2007 on Natural Heritage and Biodiversity (2007) - Law 41/2010 on the Protection of Marine Environment (2010) - Law 2/2013 for the Protection and Sustainable Use of the Coast (2013) - - - - A regional law for biodiversity is foreseen for 2022	- Environmental Framework Law (1987, 2002, 2014) - Nature Conservation and Biodiversity Act (2008) - Law No. 17/2014 on marine spatial planning and management (2014) - - - - Regional Legal Framework of Nature Conservation and Biodiversity (2012)	- Environmental Protection Ordinance (2016)
	<i>Climate change</i> UNFCCC	- Loi relative à l'énergie et au climat (2019) - Loi portant lutte contre le dérèglement climatique et renforcement de la résilience face à ses effets (2021)	- Loi relative à l'énergie et au climat (2019) - Loi portant lutte contre le dérèglement climatique et renforcement de la résilience face à ses effets (2021)	- <i>Ley 7/2021 de cambio climático y transición energética</i> - - - - A regional law for biodiversity is foreseen for 2022	Missing	- Climate Change Policy
B. STRATEGIES	<i>Biodiversity conservation</i> CBD, ABTs	- Second National Biodiversity Strategy (2011)	- Second National Biodiversity Strategy (2011)	- Strategic Plan on Natural Heritage and Biodiversity (2011)	- National Strategy for the Conservation of Nature and	Missing <i>but a National Environmental</i>

		<ul style="list-style-type: none"> - National Strategy for Biodiversity 2030 - National strategy for marine and terrestrial protected areas --- - Stratégie Réunionnaise pour la Biodiversité (2014) - Stratégie de conservation de la flore et des habitats de La Réunion - Stratégie de lutte contre les espèces invasives à La Réunion 	<ul style="list-style-type: none"> - National Strategy for Biodiversity 2030 - National strategy for marine and terrestrial protected areas 		Biodiversity to 2030 (2018)	<i>Management Plan (2012)</i>
	Marine environment MSFD	<ul style="list-style-type: none"> - <i>Stratégie nationale pour la mer et le littoral (2017)</i> --- - <i>Document stratégique de bassin maritime Sud océan indien (2020-2026)</i> 	<ul style="list-style-type: none"> - <i>Stratégie nationale pour la mer et le littoral (2017)</i> --- - <i>A Document stratégiques de bassin maritime pour la Guyane is under development and will be submitted to institutional and public consultations in 2022</i> 	<i>Missing (but Law 41/2010 on the Protection of Marine Environment)</i>	- National Strategy for the Sea 2021-2030 (2021)	<ul style="list-style-type: none"> - Marine Management Plan (2016) - Marine Management Plan (2023) *** out of the <i>acquis communautaire</i>
	Climate change UNFCC, PA	- National Climate Change Adaptation Strategy (2006)	- National Climate Change Adaptation Strategy (2006)	- National adaptation strategy (Plan Nacional de Adaptación al Cambio Climático) (2020)	<ul style="list-style-type: none"> - Strategic Framework for Climate Policy (2015) - - - National Programme for Climate Change 2020-2030 - National Adaptation Strategy (2020) 	- Climate Change Policy

					--- - Regional Strategy for Climate Change (2011) - Regional Program for Climate Change (2019)	
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2.1. Policy agendas and the prioritisation of public issues

Recommendation 1: Align national and subnational policy agendas by taking into account both international commitments and local priorities.

The development and implementation of legislative and regulatory frameworks strongly depends on the commitment of all levels of governance to common policy objectives and their prioritisation on the policy agendas of each jurisdiction. These policy objectives need to be elaborated in the light of local concerns as well as in compliance with international commitments and targets in order to be realistic, acceptable and achievable.

In **Reunion**, the regional administration executes its functions of implementation under the political direction of the representatives elected regionally. In France, decentralisation has indeed empowered these subnational elected representatives with more autonomy, particularly during policy implementation. In this context, the execution of national laws, strategies and programmes largely relies on the political will of regional, as well as local, policy-makers to execute national policy priorities. The delivery of certain national policies, e.g., for the environment, has thus become dependent on the action of these politicians.

Policy-makers in Reunion have diverted their attention to environmental matters including biodiversity in the last years, but mainly for economic reasons since the conservation of nature serves economic development (Interviews RE-6 and RE-7). In other words, the good conservation of the island's environment becomes important as long as it is beneficial for the economy of the region (Interview RE-1). However, biodiversity is now considered a key priority as part of the new vision towards ecological transition.

The priority on the regional policy agenda of Reunion has been economic growth and job creation. Unemployment is indeed quite high and alarming especially among the younger generation (IEDOM 2015). The rate of unemployment was 48% in 2020; it was 26% for people among 15 and 29 years of age in the same year⁴.

In the complexity of multiple decision-making layers that compose the French state, the commitment of subnational state actors to the central policy mandates is a

⁴ Source: <https://www.insee.fr/fr/statistiques/5354321#consulter> (last access: 27.04.2022).

prerequisite for avoiding implementation failures. Unfortunately, the involvement of subnational authorities from overseas in the definition of national strategic directions is still rather weak. According to the OECD (2016a), the process of adoption of France's second National Biodiversity Strategy (table 2) was more participative than the one leading to the previous strategy. Yet, the involvement of (overseas) subnational authorities was still rather weak.

National and regional agendas diverge in terms of policy prioritisation also in **French Guiana**. French Guiana became a *Département d'outremer* (DOM) in 1946 and a Region in the French constitutional structure in 1982. It is also an OR of the EU; French Guiana is the only inhabited continental OR of the EU (Roger et al. 2016). In 2015, the *Conseil Général* and *Conseil Régional de Guyane* merged into the *Collectivité Territoriale de Guyane* (CTG) with its own legislative assembly and executive bodies (Roger et al. 2016). In other words, in French Guiana, the Region and the *Département* are now one entity (i.e. the CTG).

The state has traditionally been present in the Region through the *Direction de l'Environnement de l'Aménagement et du Logement* (DEAL) and the *Direction de la Mer* (Roger et al. 2016). The central government is currently present in French Guiana through the *Direction Générale des Territoires et de la Mer* (DGTM). This service is in charge of the implementation of the national environmental laws (Interview file FG-2). It is accountable to several national Ministries such as the one responsible for the environment (Interview file FG-2). An *Office de la Biodiversité Amazonienne de Guyane* has been proposed as the local antenna of the *Office Français pour la Biodiversité* (Roger et al. 2016).

The territory of French Guiana is very well preserved. In 2020, more than half of the national territory (52%) was declared a protected area. The services of the central state have played an important role in this protection. In addition, the quite low development of the territory and the small population have helped in this protection. The next decades will be characterised, though, by demographic growth and, hence, more demands on natural resources for the purpose of territorial economic development. The state should pursue socio-economic development without neglecting the environment, especially in border regions with transboundary rivers and high natural resources (Rahm et al, 2021; Sieber et al, 2021). This combination is fundamental in an area where the local population is used to perceiving environmental protection as a constraint to their social and economic development that is long due (Interview file FG-2).

In this OR, the *Collectivité* is more focused on the economic development of its territory (e.g., through the exploitation of gold mines), while the central government is more attentive to its environmental objectives and international commitments (Interview files FG-2 and FG-1).

The political competencies for environmental matters, including biodiversity conservation, have been devolved to **Saint Helena** – as to all the other governments of the UK's OTs – since the late 1990s. It is the government of each OT that develops environmental policies, legislation and standards, sometimes with the support of the UK government (DEFRA 2009).

In the specific case of Saint Helena, the island has adopted important instruments, i.e., a national law for biodiversity and a strategy for its marine area (both in 2016). Yet, it has not issued any legal act on climate change or a national strategy for biodiversity (to comply with the international obligations of the CBD). The same biodiversity law (i.e. EPO 2016) lacks implementing measures; for instance, management plans for most terrestrial protected areas have not been issued yet although a current project is in place to develop these plans.

The reasons for these legislative and regulatory gaps need to be found in the prioritisation of public issues on the policy agenda in the context of limited resources (Interview SH-C). In other words, public funding – that originates for the most part from the UK – is diverted to other issues than the environment, for instance health and education. In recent years, the airport project has also attracted political attention as another (economic) policy priority (Interview SH-C). As stressed by one of our interviewees, money is limited compared to the needs of the island and 'funding is linked to politics and what people decide to spend money on' (Interview SH-B).

2.2. Strategies and policy coherence

Recommendation 2: Adopt regional (or national) strategies to enhance policy coherence around biodiversity conservation and climate change at the territorial level.

Strategic planning and the adoption of territorial strategies for biodiversity and climate change seem to steer governmental action at the territorial level towards a common vision across different policy areas.

Reunion is both a region and a *Département d'Outre-mer* (DOM) of France; it is also an OR of the EU (Tanguy et al. 2017). Environmental governance in Reunion is multi-layered: it includes national, regional, departmental and community-level authorities. The national government is present on the island through the *Préfecture* that supervises the activities of the decentralised services of the State such as the *Direction de l'environnement, de l'aménagement et du logement* (DEAL). Established in 2011, the DEAL executes and enforces at the subnational level the national policy decisions about biodiversity. The Regional Assembly includes 45 elected representatives who guide the 2,300 civil servants working in the regional administration (Interview RE-7).

As a region of France, Reunion is bound to comply with several international conventions signed by the State such as the CBD (Tanguy et al. 2017). In its action, the Region is also guided and constrained by the national legislative framework (table 2) and its alignment with EU law. The adoption of a national Biodiversity Law (in 2016) has provided the means for a stronger action of the Region in the area of biodiversity through better organisational coordination and longer strategic planning at the regional level (Interviews RE-5, RE-6 and RE-7).

Reunion has, indeed, issued several regional strategic documents. In compliance with the Biodiversity Law 2016, Reunion has adopted the *Stratégie Réunionnaise pour la Biodiversité* (SRB). The document translates the second National Biodiversity Strategy of 2011 at the regional level and constitutes the first regional strategic document on biodiversity bringing together State, Region and *Département*. This document is expected to help integrating biodiversity conservation into other policy areas and across the several levels of authority (i.e. State, Region and *Département*).

The SRB has been complemented by two other strategic documents: *Stratégie de conservation de la flore et des habitats de La Réunion* and *Stratégie de lutte contre les espèces invasives à La Réunion*. Another regional strategy⁵ was recently adopted for the period 2020-2026⁶ as the subnational implementation of the *Stratégie nationale pour la mer et le littoral* of 2017 (Tanguy et al. 2017; Interview RE-3).

The current SRB will be followed by a new regional biodiversity strategy that is currently being formulated with the engagement of different stakeholders (Interviews RE-7 and RE-8). The engagement of a broad range of territorial stakeholders in the preparation of a new regional strategy may bring this effort of coherence even further. The new SRB will be shaped around the lines of action of the *Agence régionale de la biodiversité* (ARB) (see below) to ensure more coherence within the Region (Interview RE-3).

There is not a regional biodiversity strategy in the **Azores** yet (Interview file AZ-1). According to Benzaken and Renard (2011), the goals and commitments of the CBD are well covered in both Portuguese ORs. In particular, the Azores has implemented many actions for the conservation of nature and biodiversity that are consistent with the goals of the CBD. However, the absence of a regional strategy 'reduces the opportunities to integrate biodiversity and nature conservation issues into other sectoral policies and into the decision-making process' (Benzaken & Renard 2011: 29).

Saint Helena has recently established its Climate Change Policy (ENRP 2019). This is a strategic document; indeed, the island does not have a legal act on climate change (Interviews SH-C and SH-D). The Climate Change Policy is a programmatic document that states the government's intention regarding climate change and is expected to steer public actions in this policy area. For instance, Saint Helena aims at reducing the quantity of greenhouse gas emissions by relying on renewable energies among other mitigation measures (e.g., sustainable transport and sustainable buildings). The island also aims at identifying and prioritising current and future risks from weather-related hazards (on the adaptation side) (SHG 2019).

⁵ *Stratégie pour la mer et le littoral du bassin maritime Sud Océan Indien (La Réunion – Mayotte – Terres Australes et Antarctiques Françaises)* (source: <http://www.reunion.gouv.fr/consultation-du-public-sur-la-strategie-pour-la-a6997.html>; last access: 07.10.2021).

⁶ Source: <http://www.dm.sud-ocean-indien.developpement-durable.gouv.fr/le-document-strategique-de-bassin-maritime-dsbm-r247.html> (last access: 21.10.2021).

2.3. Administrative coordination and intergovernmental relations

Recommendation 3: Improve centre-local administrative coordination in multi-level systems of governance.

An important role in the achievements of national policy and programme objectives is played by the organisation responsible for policy execution and acting in a specific area (e.g., a region, a province or a municipality). In its effort to achieve central policy objectives without causing social conflicts, the subnational implementing agencies work under the burden of several (often conflicting) pressures that are bureaucratic, political and societal. First, they are accountable to the national bureaucracy (along a vertical hierarchical line that ends at the ministerial level) for achieving the goals specified by national legislation and programmes. Second, they respond to the political leaders elected in their territory, whether it is the region, province or municipality. Third, they are constrained in their daily work by the expectations and interests of the groups targeted by a specific policy or programme (e.g., the territorial economic actors). Under these pressures, the content of national policies and programmes may change significantly during implementation while the public policy (or programme) moves from the national to the subnational level as thoroughly investigated since the first implementation studies (e.g., Pressman & Wildavsky 1973).

Some of the countries participating in the MOVE-ON Project are characterised by a high degree of political decentralisation and a significant devolution of powers across their multi-layered administrative system. In these contexts (e.g., France and Spain), the implementation of international, EU and national policies is likely to be delayed by blurred division of competences between national agencies and the corresponding authorities in the ORs. In Reunion, the creation of a regional agency for biodiversity can ease coordination. The Canary Islands seem to benefit from harmonious inter-governmental relations between the region and the central authorities.

In France, the Biodiversity Law gives the French regions the possibility to create a regional biodiversity agency, i.e. *Agence régionale de la biodiversité* (ARB) (Interview RE-3) conceived as the regional translation of the *Office français de la biodiversité* (OFB) (Interview RE-3 and RE-7). Although this is not an obligation imposed by the central government, **Reunion** has committed to the creation of its own ARB based on a partnership between the State (through the DEAL), the

Regional Council and the OFB. The ARB is expected to start its activity in 2023 (Interview RE-3). The mission and lines of action of the new agency are currently being developed in consultation with stakeholders⁷. Among its different lines of action, the ARB will be in charge of funding and regional cooperation (Interviews RE-3 and RE-7).

In addition to the bureaucratic pressures exerted “from above” by the central administration, Reunion’s public administration has been exposed to a bureaucratic pressure coming “from below”. The *Département* is the island's largest landowner with more than 100,000 ha of land (Tanguy et al. 2017). This administrative layer has traditionally been directly involved (and adequately staffed) in the environmental domain often as a partner of the central administration in the execution of national policy initiatives (Interviews RE-6, RE-7 and RE-8).

The major national reforms, i.e. the adoption of the Biodiversity Law of 2016 and the creation of the OFB, have improved coordination and planning but not sufficiently. Political and administrative efforts are somehow still dispersed in the absence of efficient coordination among regional actors and between regional and national competent authorities. The creation of a regional biodiversity agency in Reunion in 2023 (i.e. ARB) is expected to improve this aspect (Interview RE-5).

In addition, the national strategy for marine and terrestrial protected areas requests each region to develop the *Stratégie Nationale pour les Aires Protégées* (SNAP) at the regional level. As a result, the DEAL and the Regional Council of Reunion are developing a strategic document (SNAP for La Réunion) with the engagement of a wide range of stakeholders (e.g., regional and local authorities, public agencies, scientists and NGOs)⁸.

In **French Guiana**, the CTG has some responsibilities in the environmental field but no legislative power (Interview file FG-2). Like all other *départements* and *régions d'outre-mer*, French Guiana is under the national legislative framework adopted for the whole country. However, some adaptations to the national laws and

⁷ The Grenelle laws (see above) have largely influenced the development of the societal engagement in public decisions in Reunion. In addition, the movement of the *Gilets Jaunes* has played a role in opening up public decision-making to societal representation in France. However, this participatory dimension is quite new in Reunion and still in a phase of development (Interview RE-3).

⁸ Source: <https://www.ecologie.gouv.fr/aires-protegees-en-france> (last access: 11.05.2023).

regulations are possible (Roger et al. 2016). On many issues, implementation is co-created by the services of the state and the CTG (Interview file FG-2).

However, the central state is still very present in French Guiana and in the shaping of its biodiversity protection. Most of the territory of French Guiana belongs to the state and is managed by the *Office National des Forêts*. Therefore, most decisions are taken at the national level, and implementation is conducted by the state services. Some efforts have been made to involve the CTG, but most power rests at the national level (and its territorial presence) (Interview file FG-2). This might create some frictions with the CTG that aims to have more competence and decision-making power on its territory (Interview files FG-2 and FG-1).

In Spain, the development and adoption of the national strategies for biodiversity conservation is a complex process that requires the involvement of the government, the private sector and society at large; their implementation needs to engage stakeholders at both national and subnational levels. Spain's current⁹ Strategic Plan was developed with the active engagement of political, economic and social actors (Real Decreto 1274/2011) and was issued in 2011 for the period 2011-2017. It acknowledges that the actions foreseen in the document are responsibilities of the central administration but that the achievement of its objectives relies on the strict collaboration between the central administration and the ACs of the country (Real Decreto 1274/2011).

The national Strategic Plan applies to the **Canary Islands**. In addition, this autonomous region can also approve its own strategy. Indeed, this Autonomous Community has its own government and parliament, and exclusive competence in a number of fields: physical planning, land management, hunting, fisheries in inner waters, aquaculture, water management, scientific research (in coordination with the Spanish State), natural protected areas and coastal zone management. Funds for nature conservation come from the regional authorities (Benzaken & Renard 2011).

In general, the region shows good institutional interaction among all actors involved in biodiversity, i.e. its biodiversity policy community: government departments, research laboratories, universities, NGOs and municipalities (Benzaken & Renard 2011). The Canary Islands has also a tradition of good collaboration with central

⁹ Although Law 42/2007 foresees that the Strategic Plan will be revised every six years, the last valid version is still the one adopted in 2011.

authorities. For instance, it reports periodically to the national government about the actions implemented at the regional and local level for the preparation of national reports under the CBD (Benzaken & Renard 2011). This seems to help policy implementation in several fields, including public interventions in the area of biodiversity protection and climate change (Interview CI-H).

In various OTs of the UK, administrative competences for biodiversity are dispersed across several departments; coordination among them is quite difficult (Benzaken & Renard 2011). However, this element could not be traced during empirical research on **Saint Helena** where administrative coordination is reported as good.

3. MANAGEMENT: MEASURES AND FUNDING

After considering the space of improvement in the policy framework with regard to legislations and strategic documents (chapter 2), this chapter focuses on matters of management both in terms of management measures and funding. Three main recommendations are developed as explained in the following sections:

- *Recommendation 4: Enhance management through the adoption of management plans and stronger enforcement (Section 3.1).*
- *Recommendation 5: Ensure adequate protection of ecosystems (Section 3.2).*
- *Recommendation 6: Increase resource allocation to enhance the administrative capacity (Section 3.3).*

Table 3 presents an overview on the major achievements in terms of protective and restorative measures.



Table 3: Summary table of the major achievements for biodiversity protection and restoration

PERFORMANCE INDICATORS AND REFERENCE		Reunion (France)	French Guiana (France)	Canary Islands (Spain)	Azores (Portugal)	Saint Helena
C. MEASURES	<i>Biodiversity protection</i> CBD, ABTs HD, BD MSFD	<ul style="list-style-type: none"> - France has already achieved the international target of protecting at least 17% of its land area and at least 10% of the waters under its jurisdiction - - - - Parc national de La Réunion - Réserve nationale marine de La Réunion - Réserve de l'étang de Saint-Paul - Regional strategies (see above) - Action plans for the protection of species and against IAS 	<ul style="list-style-type: none"> - France has already achieved the international target of protecting at least 17% of its land area and at least 10% of the waters under its jurisdiction - - - - Parc Amazonien (2007) - Two MPAs (Amana and Gran Connétable) - Regional natural reserve 	<ul style="list-style-type: none"> - Law 42/2007 gave new momentum to protected areas - - - - About 80% of the territory of the Canary Islands is under some form of protection, but differences exist between land and sea areas (less protected) and enforcement of MPAs remains challenging - Actions for endangered species (including IAS control measures), but problems with data availability and management 	<ul style="list-style-type: none"> - 9 Island Natural Park - Azores Marine Park (2011) - Progress in the protection of species and control of IASs 	<ul style="list-style-type: none"> - Designation of 23 National Conservation Areas (44% of the island); management plans under development or already in place (e.g., Peaks Management Plans) - One extensive MPA with a Marine Management Plan (2016) - Protection of species
	<i>Biodiversity restoration</i>	<ul style="list-style-type: none"> - Some restoration measures are in place 	<ul style="list-style-type: none"> - No restoration measures are in place 	<ul style="list-style-type: none"> - Restoration interventions are sporadic mainly because of scarce resources 	<ul style="list-style-type: none"> - Several restoration initiatives 	<ul style="list-style-type: none"> - Restoration projects



3.1. Management plans and enforcement

Recommendation 4: Enhance management through the adoption of management plans and stronger enforcement.

The European overseas entities have progressed in the establishment of management plans, for instance for the protection of specific areas. The surface area under protection has increased in several ORs of the EU and the OTs of the UK in the last two decades. Protected areas have been created in Reunion, French Guiana, the Canary Islands, the Azores and Saint Helena (table 3). However, improvements are still needed in the management and enforcement of protected areas in some of these entities.

In France, the momentum given to protected areas by the second National Biodiversity Strategy has helped the country reach the international objectives of protecting at least 17% of its land area and 10% of the waters under its jurisdiction in line with the CBD and the Aichi targets (OECD 2016b). In fact, one third of French waters (both in metropolitan and overseas France) are now marine protected areas (Claudet et al. 2021).

The level of protection of areas is higher in overseas France according to the OECD (2016a). In particular, **Reunion** has put in place a good regulatory framework for the protection of its areas both on land and in the seas (Interview RRE-5). Although the Regional Council can establish regional parks and reserves, all protected areas of Reunion have been established by the State (Interviews RE-7 and RE-8). The *Parc national de La Réunion* was created in 2007 and covers 42% of the territory of the island; it is fully funded by the State (through the MET). After some initial issues, a management plan was adopted in 2014, i.e. *Charte du parc national*. The island also has two national natural reserves. The first is the *Réserve nationale marine de La Réunion* (created in 2007); it has its own management plan that is elaborated in collaboration with relevant stakeholders and funded by both the State and the Region. The second is the *Réserve de l'étang de Saint-Paul* (created in 2008) (Tanguy et al. 2017; Interviews RE-3 and RE-6), and as from mid 2023 will be under the management of the State, the Regional Council, the Departmental council, and the West coast municipalities agglomeration, commonly called TCO for (Communauté d'agglomération du Territoire de la Côte Ouest). The Regional council (as well as the State and the *Département*) is present in the management bodies of both the National Park and the Marine Reserve (Interview RE-3). Several

other areas are under some form of protection (as reserves) for habitats and species (Tanguy et al. 2017). Less than 0.01% of marine surface area is protected (this includes the Reunion Exclusive Economic Zone). Within the marine protected area of La Réunion, only 6% is categorised as sanctuaries.

Most of the territory of the **Canary Islands** is under some form of protection; yet differences exist between the protection of terrestrial and marine areas. The latter ones are less protected mainly because monitoring and enforcement on the vast geography of the region remain challenging.

In the Azores, the Regional Legal Framework of Nature Conservation and Biodiversity Decree Law No. 15/2012/A) has recognised the important role of protected areas for nature conservation. The legal framework applicable to the Azores Protected Areas Network (Decree no. 15/2012/A) adopted the classification suggested by the International Union for the Conservation of Nature.

Weaknesses during enforcement also characterise protected areas in the **Azores**. The economy of this OR has traditionally been based on the primary sector (i.e. agriculture and fisheries). Currently, economic activities are increasingly concentrated in the tertiary sector, namely tourism, which will contribute to the coastal development through the construction of infrastructures like ports and harbours (Madruga et al. 2016). The problem of compatibility/articulation of land uses in protected areas or other classified areas related to agriculture and forestry users does not only come from urbanistic pressure but also from tourism pressure, mainly in the coastal areas and the lack of concerted planning, exceeding load capacities in some places already defined by economic interests or trends such as carrying out activities that degrade natural resources. There are conditioned or forbidden activities, but often the respective administrative offenses are not defined. There is a lack of real management plans for the protected areas/NIPs or some of the other environmental classifications. Copy-paste plans are made and not put into practice or are not even feasible. There are several environmental requalification projects and they are not always articulated with what already exists either on site or with activities carried out by other entities.

Currently, the Azores Marine Park is being reviewed, with the regional government planning to release the new version by the end of 2023.

Protected areas both on land and in the sea have also been established in **Saint Helena**, and they would cover an important area vis-à-vis the international commitments of the CBD and Aichi targets, but many terrestrial areas of the island

still lack management plans. On the land, only a few areas are currently protected (as national parks or national conservation areas). Several places have been designated but management plans are still missing for most of them (Interview SH-B). These plans have not been issued because of the lack of staff and skilled personnel (with sufficient time allocation to develop such plans) and funds to pay personnel. In the seas, the existing MPA 'has been managed as best as it could possibly be given the resources that we have', according to an interviewee (Interview SH-B). This is a general problem for environmental protection in Saint Helena: 'we do lack some funding and resources and expertise to put into these things' (Interview SH-B). The issue of funding is further analysed in section 3.3.

For the production of the MMP, Saint Helena has received support (e.g., expertise and data to inform decision-making) from the UK's Blue Belt Programme (Interview SH-D). The MMP 2016 has been revised (Interview SH-D) and a new version 2023-2027 will be formerly published mid-2023. In the revision process, important inputs came again from the Blue Belt Programme (Interview SH-B). The MMP is being updated based on contingent legislative progress in related areas (e.g., fisheries) and more evidence from the field (Interviews SH-C and SH-D). The MMP is developed and implemented by the ENRP Portfolio.

According to the EPO (articles 30 and 31), National Conservation Areas (including MPAs) are designated by the Governor of Saint Helena; a management plan is then adopted by the CEO. Penalties for breaches to the management plan are foreseen as part of enforcement (article 33, EPO 2016). Saint Helena has a total of 23 National Conservation Areas: 3 National Parks, 6 Nature Reserves, 5 Important Wirebird Areas and 9 Historic Conservation Areas. The Nature Reserves and the Important Wirebird Areas cover 11% of the total terrestrial area (Taylor et al. 2016). In total, the protected area designated is 44% of the territory of the island. Such designation has implied a process of public consultation (Interview SH-D). However, management plans for terrestrial protected areas (falling under the remit of the Land Planning and Development Control Ordinance of 2013) have never been adopted (with the exception of one area); hence, they lack legal protection (Interview SHB). The production of management plans for the terrestrial protected areas remains a political priority; the main obstacle is the lack of resources for producing those plans. Therefore, the limited resources have caused inefficiencies during policy implementation, for instance in the management of its protected areas.

Unfortunately, around these areas there is a strong development pressure and, in the absence of management plans, some development projects have gone ahead. Saint Helena is a small island (as many other OTs); its land is thus under strong development pressure (Interview SH-D).

3.2. Management measures

Recommendation 5: Ensure adequate protection of ecosystems.

Plans of action for the conservation of fauna and flora have been adopted or are being developed in **Reunion**, **French Guiana**, the **Canary Islands**, the **Azores** and **Saint Helena**. Measures to control local biodiversity from IASs have also been put in place in various EU overseas entities (e.g., the French ORs and in Macaronesia) and the OTs of the UK. However, many vegetal and animal species are threatened and in decline in the ORs and OTs. This is mainly due to habitat destruction caused by urbanisation, coastal development, poor watershed management, mining and inadequate development control, pollution and IAS.

Biodiversity policy in France relies on a set of policy instruments that include regulatory tools (e.g., protection of areas, habitats and species), economic measures (i.e. those financing actions against biodiversity loss) and other interventions (from information campaigns to restoration initiatives through direct intervention) (OECD 2016a). France has established protected areas (see above) also as part of the Natura 2000 network. This network gives effect to the two EU Nature Directives through the creation of special conservation zones for habitat types (under the Habitats Directive) and special protection zones for wild bird species (under the Birds Directive) (OECD 2016a). However, the Nature Directives do not apply to Reunion and all other DOM-ROMs (Interviews RE-3, RE-6 and RE-7).

France has also improved its protection of certain habitats. Furthermore, the country has elaborated action plans to restore and conserve populations of endangered species that have proven to be successful (OECD 2016a). National action plans for species conservation are being implemented in **Reunion** among other ORs of France (Benzaken & Renard 2011). Finally, France has formulated strategies and action plans to combat invasive alien species (IAS) (Benzaken & Renard 2011; OECD 2016a). Species and habitats are protected in Reunion under several regional strategies (see above). IAS represent a major threat to the local flora that is still in danger in Reunion despite the numerous policy initiatives (Interviews RE-3, RE-5 and RE-7).

In **French Guiana**, the situation is quite different. Some species are still endangered (e.g., giant otter and jaguar) and some habitats are locally at risk, particularly the Savannahs. Pressures on the environment are present and are due to illegal

practices (e.g., in the mining, logging and fishing sector) and territorial development (Roger et al. 2016). No restoration initiatives are in place in the region (Interview file FG-1).

The protection of species remains difficult in many of the territories investigated in the MOVE-ON Project. For instance, the **Canary Islands** has adopted actions for endangered species (including IAS control measures), but problems persist with data availability and management as evidence for the endangered status of some species is often weak.

Some progress in the protection of species has been achieved by the **Azores**. The Azores is now developing its Regional Strategy for the Control and Prevention of Invasive Alien Species. However, IASs are spreading in all islands and in protected areas, which threatens endemic habitats.

In **Saint Helena**, the protection of species has improved since the adoption of the EPO in 2016 and the designation of protected areas. The EPO is the first and most important legislative instrument in Saint Helena for environmental protection; it seems to have had a positive impact on both habitats and species (Interview SH-C). Indeed, the EPO's section on the conservation of biodiversity (Part 6) includes obligations for the protection of areas and species (articles 19–21, EPO 2016). It also includes provisions on IAS (articles 22 and 23, EPO 2016).

Political will seems to be present on the island, but the scarce availability of resources clashes, for instance, with the high number of species present on the island. In this context, conservation efforts are directed to the species most in need at a specific time without any long-term conservation planning (Interview SH-B). In addition, IAS still constitute an important threat to its environment.

Many International and European Directives and targets on Biodiversity and Climate Change are redundant, and acting towards reaching one specific target could in fact result in cascading effects that contribute to meeting many other targets. Preserving biodiversity will maintain ecosystems in a state that is favourable to mitigate the effects of climate change. Whether one Directive does or doesn't apply to one specific territory isn't an issue as long as the local strategy implements the necessary steps that will inevitably lead to the same goals. Those steps must be promoted to decision-makers with a strong engagement from the scientific

community (e.g., academia, NGO) so they can be included in the law for their effective application. The necessary steps are as follows:

- 1- Mapping of ecosystems
- 2- Monitoring the state of ecosystems
- 3- Assessing ecosystem services – monetary value, cultural and ethical values
 - a. Incentives for the conservation of ecosystems
 - b. Mobilizing financial resources to conserve and sustainably use the environment and ensure funding synergies (with low administrative process avoiding time-consuming process)
- 4- Establishing a system of protected areas and restoration measures
- 5- Managing local stressors and reducing CO2 emissions
- 6- Increasing surveillance and law enforcement

Completing those steps locally in each EU and UK Overseas will contribute substantially to meeting many International and European Directives and strategies (in bold in the text). See Annexe 1 for references. Note that those steps are not necessarily ordered, so one territory could, for instance, implement step 5 before the mapping of ecosystems (step 1).

To ensure adequate protection of ecosystems, the main priorities are first to map key natural habitats and to assess their ecological condition (**EU Biodiversity Strategy Target 1**). The deliverable 3.3.1 of the MOVE-ON project describes the creation of Macaronesian Marine habitat Platform, that settles a baseline for future management of the archipelago's ecosystems and their services up to 100m depth, since decisions about conservation strategies need to be supported by data about habitat trend variations. The results highlighted the importance and singularity of coastal marine habitats of the three archipelagos. However, data lacking and future development of established or emerging blue economic sectors, make urgent the provision of robust scientific information about these keystone marine habitats to help decision-makers to adopt proper conservation programs able to preserve them as well as to ensure the sustainable use of coastal resources.

Those first-level monitoring programmes provide evidence and support for further actions, such as the assessment of the ecosystem services (**Agenda 2030-Target 15-9**) – see MAES evaluation in the EU ORs/OCTs and the UKOTs from the MOVE and MOVE-ON projects. Assigning a monetary value to the assessment of ecosystem

services can be a strong incentive for the conservation and sustainable use of components of biological diversity (**CBD Article 11 Financial Incentives**) and mobilizing financial resources to conserve and sustainably use biodiversity and ecosystems (**Agenda 2030 Target 15-A Financial resources**). For instance, the median annual global value of coastal wetlands for storm protection has been assessed at \$447 billion/yr (2015\$US) and 4,620 lives saved per year (Costanza et al. 2021). These results justify much larger investments in the conservation, protection and restoration of coastal wetlands, and any other keystone ecosystems that provide essential services (**ABT Target 14 Ecosystems**). Identifying those priority areas should support the establishment of a system of protected areas (**CBD Article 8 Protected Areas**), which will inevitably get us closer to the **Aichi Biodiversity Target 11** (17% terrestrial and inland water areas; 10% coastal and marine areas are protected and conserved, or the **Agenda 2030 Target 14-5** with at least 10% of coastal and marine areas protected. By implementing the necessary legislation and regulatory provisions for the protection of threatened species and populations (**CBD Article 8 Legislative framework**), ecosystems that provide essential services can be restored and safeguarded as long as local stressors can be managed for effective protection and restoration actions. In fact, the proportion of protected areas alone does not guarantee effective protection; only management measures in place to reduce disturbances can increase the resilience of natural habitats. Acting on reducing pollution levels and anthropogenic pressures (**Aichi Biodiversity Targets 8 and 11, Agenda 2030 Targets 6.3 and 14.1**) will pave a long way to ecosystem resilience, natural restoration and avoiding the extinction of threatened species (**CBD Article 8, Aichi Biodiversity Target 12, Agenda 2030 Target 15-5, EU Biodiversity Strategy Target 2**).

More importantly, multiple co-benefits arise from the protection of natural habitats, particularly in the fight against biodiversity loss and climate change. For example, in the fight against alien species, maintaining healthy ecosystems reduces the chances of the proliferation of non-native species. Through the service of 'Pest control', protecting key natural habitats (terrestrial, freshwater, or marine) contributes to the prevention and control of alien species and, therefore, contributes to meeting the objectives of **CBD-Article 8, Aichi Biodiversity Target 9, Agenda 2030 Target 15-8**, and the **Habitats and Birds Directives Articles on Non-Native species**.

The contribution of terrestrial, freshwater and marine habitats to carbon stock is also enhanced through conservation and restoration (**Aichi Biodiversity Target 15**). The

assessment of the service of climate regulation through the function of carbon sink can then be incorporated into National Inventories of removals by sinks along with emissions (**UNFCCC Article 4 National Inventories**). Mangrove forests and seagrass beds are widely distributed among the European and UK overseas entities and are among the best natural carbon sinks on Earth. For French Territories only, the service of climate regulation by mangrove forests has been estimated at 938 million €/year (Trégarot et al. 2021a). The monetary value of the blue carbon stock in the Canary Islands, in 2020, is 218.4 million €, corresponding to 0.56% of the Canary GDP (Montero-Hidalgo et al. 2023). Kelp forests are also largely present in the sub-Antarctic overseas. In the Falkland Islands, present day standing stock of carbon stored in *Macrocystis* and *Lessonia* kelp is equivalent to £60.27 million. The annual value of carbon sequestered in deep-sea sediments has been estimated to be approximately £31.07 million per year (Bayley et al. 2021). Protecting and restoring those carbon sinks not only reduces the atmospheric CO₂ concentration but also prevents the release of a large amount of carbon that has been stored in the soil for centuries due to ecosystem degradation (**Paris agreement Article 5**). Furthermore, many marine and coastal ecosystems protect our coastline from erosion, storm surges, and coastal flooding. Coral reefs are found on most tropical overseas entities. Their ability to attenuate wave energy provides multiple services such as 'control erosion rates', 'flood control', and 'coastal protection'. By reducing hydrodynamism, they provide favourable conditions for seagrass and mangroves forests to thrive, reducing even more wave energy (Trégarot et al. 2021b). Maintaining these natural barriers strengthen coastal communities' resilience and adaptive capacity to climate-related hazards and natural disasters (**Agenda 2030 Target 13.1**). The evaluation of services of climate regulation and coastal protection can provide evidence for national policies and measures for climate change mitigation and adaptation to be adopted and integrated into national development programmes (**UNFCCC Article 3 and 4, Paris Agreement Article 7**). However, protecting those key habitats does not replace the urge to cut the emissions of CO₂ drastically into the atmosphere (**UNFCCC Article 2 and 4**) to limit the temperature increase to 1.5°C above pre-industrial levels (**Paris Agreement Article 2**) and address the impacts of ocean acidification (**Agenda 2030 Target 14.3**). While those ecosystems mitigate the effects of climate change, they remain vulnerable to the effects of climate change, especially when combined with anthropogenic pressures.

Needless to say that for protection and restoration measures to be effective, surveillance and law enforcement must be adequate (**Habitat Directive Article 11**).

Harvesting must be effectively regulated which, for the marine environment, means ending overfishing, illegal, unreported and unregulated fishing and destructive fishing (**Agenda 2030 Target 14-4**). Guarantying the sustainable use of resources is fundamental (**Agenda 2030 Target 15-1, EU Biodiversity Strategy Target 4**) for ecosystems to remain healthy for future generations to come. The already significant benefits of protecting and restoring coastal wetlands will become increasingly important and valuable in the future.

Figure 1 below illustrates the links between the main marine and coastal ecosystems of European and UK Overseas entities and their contribution to international and European directives and targets through the services they provide. This has been extended to all EU ORs/OCTs and UKOTs. Terrestrial and freshwater ecosystems obviously contribute to those targets as well, but for practical reasons, and readability, have not been included in the figure.

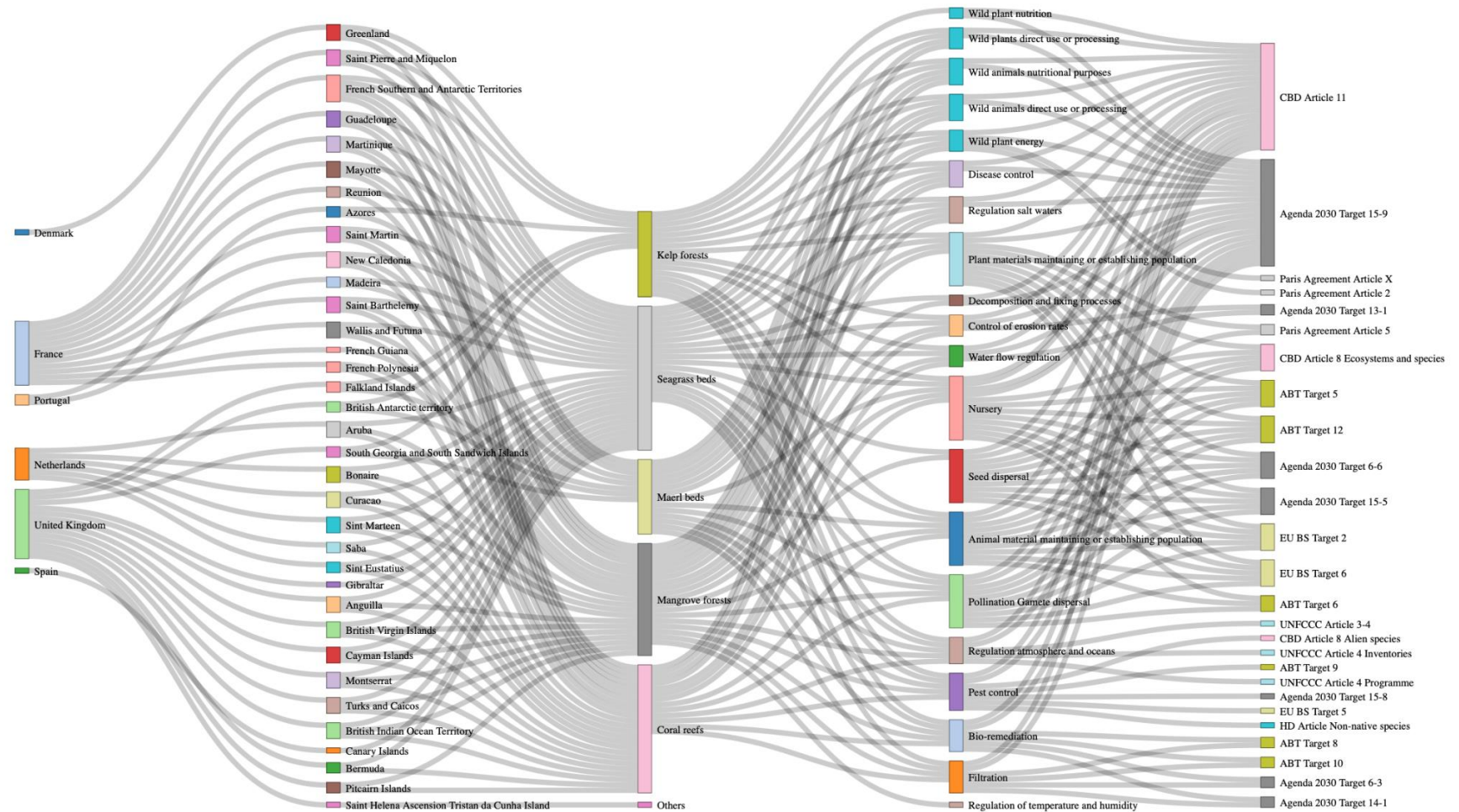


Figure 1. Sankey Diagram on the contribution of marine and coastal ecosystems in EU and UK overseas entities in achieving International and European Directives on Biodiversity and Climate Change through ecosystem services.



3.3. Resource allocation and administrative capacity

Recommendation 6: Increase resource allocation to enhance the administrative capacity.

Each stage of the policy cycle demands and relies on a set of resources understood here (as well as in the traditional policy analyses) as commodities (or means) of the political-administrative action to resolve a collective problem (“policy resources”). The availability of resources has a strong influence on the results of a public policy. Even before a policy is formulated, politicians, civil servants and private actors are confronted with limited, yet necessary, resources for the construction, production and execution of a public policy.

Inadequate resource allocation may ultimately explain implementation deficits and gaps both in the outputs and outcomes of governmental action (Knoepfel 2018). Indeed, the relevance of resources for successful policies has been stressed since the early studies on policy implementation (Sabatier 1980) and regularly confirmed in the study of public policies (Knoepfel et al. 2007). The term “policy resources” (or “administrative capacity”) has been used to include a long list of physical and immaterial assets that are mobilised to form and implement public policies: funds, personnel, talent, organisation, appropriations, infrastructures, facilities, equipment, information, knowledge, leadership, political support, public consensus, time and many more (Knoepfel 2018; Vedung 2006).

Insufficient resources recur as a crucial hindrance in implementation in many European overseas entities. The administrative capacity of the EU’s ORs is usually limited by their remoteness, insularity and small dimension. These factors may determine weaker economies with an impact on the availability of resources for policy implementation. The small population of the UK’s OTs and their low geographical accessibility limit the availability of technical expertise (DEFRA 2009). Even when technical positions are filled, the high turnover of staff easily deprives public agencies of skilled personnel and, ultimately, knowledge. All these elements negatively impact the administrative capacity of the OTs. The size of environmental departments varies across the OTs of the UK but they are in general understaffed (CEFAS & MMO 2019). In addition, Brexit can exacerbate this problem in the UK OTs.

Public funding for the environmental policy area is particularly weak in territories like the overseas entities characterised by an abundant biodiversity. In this context,

resources are limited even when environmental problems, including biodiversity, receive full political attention.

More precisely, the availability of resources varies across the European overseas entities also depending on the financial commitment of the central governments. In other words, in some cases the resources available are diverted to other policy priorities depending on the political agendas.

The lack of sufficient resources makes implementation of international and national policies difficult at several stages: enactment, execution and enforcement. For instance, the lack of sufficient resources in **Saint Helena** has hindered both the adoption of strategic documents for biodiversity and climate change (enacting international objectives) and the issuing of implementation measures and management plans (execution) (Interview SH-D). In the absence of sufficient financial resources, also monitoring and enforcement activities (e.g., of protected areas) becomes challenging (see Saint Helena and **Macaronesia**). Furthermore, many EU overseas entities have adopted additional measures for the protection of biodiversity such as "species recovery plans". These measures are often the result of joint actions between (local and international) NGOs and governmental agencies (Benzaken & Renard 2011). Restoration measures are in place in **Reunion**, the **Canary Islands**, the **Azores**, and **Saint Helena**. However, restoration interventions are often sporadic, mainly because of scarce resources.

In **Reunion**, public funding for the environment is still very limited due to other socio-economic priorities that crowd the political agenda. However, biodiversity protection is receiving increased budget allocation from the state (see Fond Vert). To some extent, EU funding has compensated for the lack of adequate national and regional funds. However, multiple short-term projects (funded by the EU) are necessary to finance long-term interventions for biodiversity (Interview RE-5). Furthermore, the management of the EU funding implies an extra administrative burden on the small public administration often present in EU's ORs and local NGOs.

Even when financial resources are available, the island may lack dedicated personnel because of the size of its population, which can play in favour of inaction. For instance, once France had issued its national strategy for MSP (2017), many ORs lacked capacity (in terms of human resources and technical skills) to implement this strategy and produce their own marine spatial plan (Interview RE-1 and RE-5).

Funding can also be affected by unbalanced distribution like it happens in **French Guiana**. This OR has 6 national natural reserves and one regional natural reserve. Protected areas receive adequate funding from the State. Most of the budget is allocated to terrestrial protected areas. However, the local capacity for the management of these funds and the related activities is quite low. The *Parc Amazonien* (3,4 million ha; 40% of the territory) was created by France in 2007 (Roger et al. 2016); it is managed by a *Charte* adopted in 2013. Its governing body brings together representatives from the local community and the central State. There are two marine protected areas: Amana¹⁰ and Grand Connétable; these two areas have received limited funding compared to the financial investments destined to the terrestrial protected areas (Roger et al. 2016).

The priorities identified in the national and subnational political agendas (see above) also determine the allocation of resources. In some cases, the public agencies responsible for environmental matters have adequate funding, personnel, equipment and expertise. For instance, the Portuguese ORs benefit from budget allocation coming from the central government. Both regions, i.e. the **Azores** and Madera, have well-equipped research departments and good infrastructures for environmental protection. In other cases, the administrative capacity is weak. In particular, the Azores face major challenges due to the unavailability of adequate resources during monitoring and enforcement, for instance in protected areas. Here, academic organisations and research centres play a key role in support of public actions in the domain of biodiversity across the entire archipelagos.

Saint Helena has self-determination and is administered by its own acts and authorities. Defence and Foreign Affairs continue to be the responsibility of the UK (Taylor et al. 2016). As for other OTs, powers have been devolved since the 1990s at the same time when environmental awareness was raised on the island. This seems to have eased Saint Helena's own action on environmental issues (Interview SH-B). Political support for the environment has been confirmed during field research (e.g., Interview SH-D). The national political agenda is left to Saint Helena's policy-makers with no interference from the UK government (Interview SH-D). Saint Helena's government budget (mostly coming from the UK) is shared among all government portfolios. The environment does not receive a large share since it competes with other national priorities such as education and health (Interview SH-D).

¹⁰ Amana was initially a terrestrial PA, but the very rapid erosion of the coastline turned part of its area into coastal/marine ecosystems.

Financial resources are usually scarce and the contribution coming from the UK is often insufficient (DEFRA 2009; Taylor et al. 2016). In addition, the OTs' constitutional linkages with the UK prevent them from accessing other funds (e.g., from the US). It follows that for the environment, the government of Saint Helena has to rely on project funding. This project-based source of funding will face a new challenge in the near future due to Brexit. Indeed, the island can no longer access funding schemes like the BEST initiative or the European Development Fund for the development of its infrastructure as it happened before Brexit (Interviews SH-A; SH-D). However, Saint Helena can access UK sources of funding under the Darwin+ initiative (including Darwin+ Main, Darwin+Local and Darwin+ Strategic).

In Saint Helena, the role of Non-Governmental Organisations (NGOs) (in collaboration with public agencies) in the major policy achievements is undeniable (Benzaken & Renard 2011). Environmental NGOs (e.g., Saint Helena National Trust), partially compensate the local capacity for the protection of areas, species and the environment in general, and the actions that the government is unable to conduct. NGOs have channelled financial resources not only from UK-based foundations but also from EU funding programmes (Interview SH-B). Again, Brexit is likely to have a negative impact on this last source of funding.

Similar to other OTs, Saint Helena needs more policy resources for the protection of its unique biodiversity. For instance, the personnel currently employed in biodiversity conservation in the national public administration is very small (Interview SH-D). In this context, the UK's contribution becomes crucial, especially now that Brexit will take away EU funds from the OTs' budget (Interview SH-B). The UK should, thus, confirm its past commitments to the OTs' biodiversity (as done in the Environmental Charters and the UK Post-2010 Biodiversity Framework) and support capacity-building in its OTs through funding, training and cross-territory skill exchange (DEFRA 2009).

4. DECISION-MAKING PROCESS: INFORMATION AND PARTICIPATION

This final set of recommendations refers to the decision-making process and how it can be reinforced. The three recommendations are:

Recommendation 7: Improve the provision and use of scientific knowledge in decision-making (Section 4.1)

Recommendation 8: Promote regional cooperation and strengthen regional mechanisms of coordination among European overseas entities (Section 4.2).

Recommendation 9: Strengthen public engagement (Section 4.3).

4.1. Scientific knowledge and communication

Recommendation 7: Improve the provision and use of scientific knowledge in decision-making.

Scientific evidence is rarely complete and often dynamic and contestable (SAPEA 2019). Based on their very nature, the use of ESs largely depends on the scientific knowledge we possess on ecosystems and their dynamics (Cohen-Shacham et al. 2016).

Lack of adequate data related to ESs seems to affect many overseas entities of the EU, both ORs and OCTs¹¹. Weaknesses in the available data on ecosystems and their services also affect policy-making in mainland Europe as reported by a policy expert from an environmental international NGO (Interview SH-A).

Policy development and implementation needs to be informed by sound evidence, good data and strong expertise. The presence of expertise and skills varies across the European overseas entities. In some of these territories, research institutions are present and active. In some other contexts, mainly the smallest and most isolated islands, knowledge is not always easily available.

The lack of evidence can hamper the adoption and implementation of adequate management measures where the political commitment to biodiversity is not strong enough. More generally, weak knowledge of ecosystems, ecosystem dynamics and services may enhance the political neglect for including ESs in policy decisions (McFarland & Gerdes 2016). As clearly stated by Farrell and Finnemore (2016), it is difficult to advance new ideas in the absence of good data.

More scientific research on ecosystems' dynamics is needed, particularly in EU's overseas entities where capacity is often lacking despite their crucial role for biodiversity. Stronger scientific evidence can also benefit the uptake of new policy measures in policy design. Scientists from different disciplines need to fill existing knowledge gaps and provide guidance to policymakers and all other relevant stakeholders on more innovative and effective measures. In the effort to fill these gaps, scientific research can be complemented by local knowledge; yet this will

¹¹ We conducted several interviews on the uptake of ESs in various EU's ORs and OCTs in the framework of the MOVE project (see <https://moveproject.eu>; last access: 05.01.2021).

require more inclusive practices of decision-making that are not common across all EU's overseas entities (see next section).

With today's information overload, it has become increasingly difficult to analyze the huge amounts of data and to generate appropriate management decisions. Furthermore, the data are often imprecise and will include both quantitative and qualitative elements. For these reasons, it is important to extend traditional decision-making processes by adding intuitive reasoning, human subjectivity and imprecision. Fuzzy Cognitive Mapping is classified as a soft computing technique which is trying to mimic humans' reasoning and decision-making. Fuzzy Cognitive Maps (FCMs) have gained popularity within the scientific community due to their capabilities in modelling and decision-making for complex problems. Because of their flexibility, FCM has been used in a range of scientific disciplines, from political science to economics to ecology.

Mental Modeler is a free online software that allows to build Fuzzy-logic Cognitive Maps easily and intuitively. Once models are built, increasing or decreasing the components included in the model allows you to examine different scenarios of change. A great advantage is that we can co-construct (with experts and various stakeholders) a qualitative conceptual model (without the need for quantitative data). Once the conceptual model is finalized, we can easily develop scenarios and evaluate system change under plausible conditions. We can build a general model for one ecosystem in one region, but we can tailor it to very specific socio-ecological contexts at a scale relevant to decision-makers for instance.

and coordination across management bodies. They also depend on available knowledge on the status of habitats and species in order to correctly inform decision-making. However, the production of more knowledge and its delivery to decision-makers as science advice remains challenging in Reunion because of the internal capacity of the island. Therefore, France should not only improve coordination between the central administrative bodies and the related public agencies with its overseas entities, but also promote the collaboration of its DOM-ROMs with the overseas entities of other Member States of the EU so to strengthen capacity through the exchange of knowledge and mutual learning (Tanguy et al. 2017). Several partnerships are in place, the National Parc of la Reunion have an MoU with the National Parks of South Africa.

Particularly, data availability represents a key challenge where the surface of unexplored areas and the richness of biodiversity demand high amounts of public resources, as it happens in **French Guiana**. Because of the presence of large forests, French Guiana is crucial for sequestering atmospheric carbon and mitigating the effects of climate change. Its biodiversity richness must be preserved for its relevance on a global scale. Yet, about 80% of the biodiversity of its forests remains unknown (Roger et al. 2016). Likewise, weak knowledge of the territorial fauna and flora affects the protection of species (Interview file FG-1).

In the **Canary Islands**, incomplete knowledge has impacted some restoration activities for seagrass. Knowledge gaps were present about the conditions of the donor bed, threats and opportunities of the future location, dynamics of seagrass' recovery, and interactions with the surrounding environment (OCEANA 2010). Knowledge gaps are usually substantial in marine ecosystems due to the complexity of these ecosystems and limited access to the marine environment. In particular, the EU's overseas entities (both ORs and OCTs) still lag behind in the mapping and assessment of their ecosystems and related services. Although funding has found some financial sources in EU projects, EU's overseas entities often lack technical skills and need to rely on research centres located in mainland Europe. Furthermore, understanding ESs supposes that we have good knowledge of the ecosystems present in a territory and their condition. Comprehensive knowledge about the condition of habitats and species in Spain is still far from complete (Real Decreto 1274/2011).

In the Canary Islands, the socio-economic gain coming from biodiversity protection and restoration needs to be made clearer to policy-makers and the general public.

Despite the recognition of the relevance of ESs at the international level, the value of biological diversity is not yet sufficiently applied in *national* public decisions (OSE 2012). Unfortunately, the calculation of this value brings along some level of scientific complexity that might weaken its adoption. Experts from several disciplines (economists, ecologists and social scientists) have worked in the last decades to improve the valuation of ESs in monetary, social and political terms so that it can be more easily incorporated into the decision-making process (Archer et al. 2018; Failler et al. 2015; OSE 2012). However, some knowledge gaps still exist.

In **Saint Helena**, the results in terms of the protection of species are considered satisfactory. However, for many species, information is not always available or strong enough for informing management plans. The island has also put in place some restoration actions. IAS still remain an important threat to Saint Helena's biodiversity (Interview SH-B and SH-D). Several OTs (namely the ones located in the South Atlantic) are affected by insufficient data available (Interview SH-A): 'Species records across the whole of the South Atlantic are incomplete, both in marine and terrestrial ecosystems, regarding the identification and the spatial distribution of species, total population sizes, relative abundance and trends' (Taylor et al. 2016: 198). Filling this knowledge gap will be pivotal for better environmental management. To that end, it is worth noting that 2 UKOT led research institutes have been created - SAERI and the Saint Helena Research Institute. In the specific case of Saint Helena, this will still require more policy resources, understood as both financial and human resources.

4.2. Regional cooperation

Recommendation 8: Promote regional cooperation and strengthen regional mechanisms of coordination among European overseas entities.

The production of knowledge and its delivery to decision-makers as science advice is still a vital challenge in many remote areas of Europe. This is certainly the case in **Reunion** because of the administrative capacity of the island as stated above; similar challenges have been faced in the **Canary Islands** (see Recommendation 7 above).

Regional cooperation could be useful also for other aspects as it has been reported in the case of **French Guiana**. The current major pressure on the forests and rivers of French Guiana is the illegal gold mining activity that started in the early 2000s. Despite the intervention of the French State (and the army), the problem has not been solved, which has created some disappointment in the local population against the services of the state. A rapid solution to this illegal exploitation is difficult mainly because of the geographical context, where illegal gold mining is widely spread across the entire geographic region, including Brazil and Suriname, where controls on the national borders (along rivers) are not easy. More means are needed, which implies more budget allocation from the central government. Another dimension of the possible solution is pursuing regional cooperation with the neighbouring states from where illegal activities originate (Interview file FG-2).

Furthermore, despite all efforts for biodiversity protection, parts of the borders of the Guiana Amazonian Parc also are national frontiers with Suriname and Brazil marked by transboundary rivers that are, thus, difficult to protect. Since neighbouring countries have different environmental protection laws and standards, land use changes in these neighbouring countries impact transnationally on French Guiana and its local communities.

In the case of Macaronesia, cooperation is quite strong between the **Canary Islands** and the **Azores**, although stronger links would be beneficial for the entire Macaronesia area.

Within the EU area, not only the national governments but also the same European Commission could commit to improve cooperation among its ORs by putting in

place platforms for knowledge exchange and capacity development across MSs and between these remote areas and foreign countries in specific sea basins.

Together with money and workforce, also the case of **Saint Helena** has shown how scarce cognitive resources can impact negatively on the making of biodiversity policies. Therefore, it will be important to reinforce the exchange of information and knowledge across the OTs by encouraging regional and cross-OT initiatives. Regional collaborations – through initiatives such as the UK Overseas Territories Conservation Forum – will enable the OTs to access a wider pool of expertise (Interview SH-B). In the specific case of Saint Helena, exchanges with other OTs happen regularly (for instance through SAERI) and are formalised in conferences; in addition, an informal network brings together the OTs in the South Atlantic (Interview SH-D). The UK should also enable its OTs to access expertise that is not available therein by building stronger linkages with academic institutions and nature conservation agencies in the UK and elsewhere (DEFRA 2009).

4.3. Public engagement

Recommendation 9: Strengthen public engagement

The importance of public engagement in policy decisions is undeniable in the modern systems of governance. The multiple reasons why public involvement is pivotal for better decision-making can be simplified into three major benefits.

On the substantive (or cognitive) level, public involvement improves the "quality" of public decisions by bringing a broader spectrum of ideas and knowledge into policy-making. While knowledge needs to be reinforced, scientific research is not the only possible route to follow. A good amount of information, expertise and ideas can be brought into policy-making by the public. Indeed, knowledge is not limited to the scientific community. Quite the opposite, experts working in isolation from local populations may overlook important aspects that are well known to the latter. Therefore, better policy design can be achieved not only with more scientific research but also through public involvement. Experts and lay knowledge are complementary; in particular, public involvement will expose policy-makers to a wider range of perspectives, priorities and values (Thomas 2012), which is strongly needed for the application of ESs and NBSs as we argue in the following section.

On a political (or instrumental) level, public involvement enhances the "legitimacy" of the way public decisions are adopted; in turn, legitimacy increases "trust" in the government and eases the implementation of policy initiatives. Theoretical insights from the study of policy implementation have for long time stressed the crucial role of the policy receivers (or target groups) for the effectiveness of any policy initiative. Participatory mechanisms are recommended for the purpose of solving conflicts of use. Public engagement tends to generate legitimacy and trust (Thomas 2012), which has a positive impact on policy implementation. Indeed, decisions recognised as legitimate by the affected groups are likely to face less opposition. Public involvement produces higher rates of implementation through the legitimisation and acceptance of decisions, and the reduction of (existing or potential) conflicts among competing interests.

On an ethical (or normative) level, public involvement strengthens the "democracy" of a political system and its public support (Thomas 2012). These advantages of public involvement (i.e. quality, legitimacy and public support) also apply to the topic investigated in this report. The involvement of people can be useful for three

important reasons: improving knowledge on ESs, easing the adoption of innovative policy measures and gaining public support for ESs.

Any meaningful MAES endeavour needs to be participatory and involve stakeholders. This is crucial for the understanding of how the loss of specific ecosystems will affect different actors. Therefore, local knowledge and stakeholders' perceptions needs to be included if the goal is to inform decision-making with more complete knowledge and expertise. Such approaches that integrate a socio-ecological analysis with biophysical insights is still lacking for many ORs (Geneletti et al. 2020).

Biodiversity in **Reunion** is mainly threatened by Invasive Alien Species, natural phenomena (e.g., coastal erosion from wind and sea waves made more severe by climate change), pollution (from the land-based sources) and human activities (Interview RE-1).

Adequate communication with stakeholders and awareness building needs to be enhanced in Reunion (Interview RE-1). A culture of public participation is weak in the island when it comes to emergency cases related to biodiversity. However, public consultation is a decision-making process undertaken by the state, regional council and departmental council prior to any actions/decisions process. It is to be noted that in the constitution (chart of environment), public consultation is mandatory. The "Water and Biodiversity committee" is the local parliamentary body where the elected political members, services of the state, local/regional/departmental authorities, municipalities, NGOs and more specifically civil society representatives meet to discuss such subjects.

French Guiana has several associations that are involved in environmental decision-making. Public engagement in this *Collectivité* has improved but still needs enhancement (Interview file FG-2).

No regional adaptation effort of the national biodiversity strategy was reported during our fieldwork in this OR (Interview file FG-1); yet a consultation is under implementation for the establishment of the National Biodiversity Strategy 2021-2030¹². The situation is different for the regional implementation of the *Stratégie nationale pour la mer et le littoral* (2017). A *Document stratégique de bassin*

¹² Source: <https://strategie-nationale.biodiversite.gouv.fr> (last access: 31.01.2022).

maritime pour la Guyane is under development and will be submitted to institutional and public consultations in 2022.

Inclusive decision-making, harmonious centre-local relations and local entrepreneurship have certainly played a positive role in the case of the **Canary Islands**, both for the adoption and implementation of a new national strategy acknowledging ESs and the local uptake of new policy measures like restoration activities.

The presence of a harmonious policy community has certainly played in favour of implementation. According to Benzaken and Renard (2011), most objectives of the CBD have been achieved in the Canary Islands. The region has approved legislation by establishing and regulating a wide set of protected areas (both on land and in the ocean) and issued catalogues of protected species (Madruga et al. 2016). It has also implemented several actions for biodiversity protection and restoration. The result is that about 40% of the territory of the Canary Islands is under some form of protection (Benzaken & Renard 2011). The region has also experimented with the use of localised initiatives for ecosystem restoration.

If the uptake of ESs is done inclusively, this can even generate public support to advance policy reform for biodiversity conservation or oppose myopic policy decisions. In other words, aware, informed and engaged publics can exert pressures on politicians at the local level to uptake ESs and apply appropriate protective and restorative interventions. Several seagrass restoration projects in Spain have been promoted by a combination of actors: NGOs, the private sector and scientific institutions. Indeed, ecosystems restoration measures can be: *government-driven initiatives*, when the government plays an active role in the restoration and management of specific habitats; *NGOs-driven initiatives*, when (local and international) NGOs direct restoration activities and also engage local stakeholders; *community-driven initiatives*, when local communities embark on restoration activities without external assistance once they face the ecological impact of biodiversity degradation; and based on a *mixed approach*, when government agencies, NGOs and local communities work together in the restoration and management of degraded habitats (UNEP-Nairobi Convention/USAID/WIOMSA 2020). In almost all approaches the importance of public engagement is undeniable.

This is important for our case. Maintaining ecosystem and ecological functions often implies trade-offs with other uses of the land. These trade-offs need to be fully acknowledged while adopting management measures, in order to consider the possible disturbance that reliance on ESs and new management measures may cause to vested interests. In many cases, public decisions on the type of measures to be adopted together with their costs, location, scale and management will involve a variety of stakeholders who may have quite different opinions on the best ways of managing their problems (Nesshöver et al. 2016). The case of Canary Islands is an example of good public engagement at the subnational level and institutional collaboration with the central authorities for the adoption and implementation of a national strategy for biodiversity in compliance with international and EU obligations for biodiversity protection and restoration.

However, more and better public engagement can further solve conflicts of land use that often are still present in these territories. As mere examples, the establishment of MPAs in the **Canary Islands** is delayed due the little acceptance from the fishing industry. Coastal protection is challenged by mass tourism and development projects.

The same seems to occur in the **Azores**, where civil society has been traditionally more reactive mainly when specific issues impact daily lives. In more recent times, people in the Azores seem to participate in public consultations and actions for capacity building in the environmental domain. Public awareness on environmental matters has, thus, grown and constitutes an area with more commitment and investment from the side of decision-makers and civil servants. More public awareness can ultimately lead to a higher demand from the citizens for environmental protection policy interventions.

Saint Helena has never been subject to the *acquis communautaire* of the EU (Interview SH-C). Its legal system is based on English law, but the island can issue its own legislation in the form of Ordinances (JNCC; DEFRA 2012). An Environmental Protection Ordinance (EPO) was adopted in 2016 and is the major legal instrument for the protection of the environment on the island. It is also very comprehensive and includes the protection of biodiversity, the management of waste and the control of pollution (article 4, EPO 2016) (SHG 2016; as confirmed during interviews: Interviews SH-B and SH-D). The adoption of EPO 2016 represents a major policy achievement in the biodiversity policy area in Saint Helena. Not much existed in the legal framework before this act. A number of legislative acts already referred to

environmental matters (e.g., Birds Ordinance (1998) and Forestry Ordinance (2001)) but the EPO is the first consolidated text on the environment, which was the main objective behind the adoption of the law (Interview SH-D). The Sustainable Economic Development Plan of 2018 confirms the Saint Helena's commitment to the effective management of its environment (SHG 2018).

The EPO was the result of a strong community involvement (during policy formation), which can explain why its implementation has not caused any major conflict with the affected stakeholders (Interview SH-B). The main obstacle in the implementation of EPO 2016 consists of the absence of regulations (that work like implementing measures of the Ordinance).

Saint Helena's MPA encompasses the entire 200 nm maritime zone, which corresponds to 444,916 km² (Interview SH-D). For the designation of the MPA, Saint Helena's Government (SHG) conducted an intensive process of public consultation and managed to have a good engagement of fishers and marine tour operators in the entire process (CEFAS & MMO 2019) despite initial confrontations with the fishing industry (Interview SH-A). The partnership approach with non-state actors also seems to be successful (Interview SH-D).

Conflicts may also arise between the development projects of some parties, on one side, and the work of conservation and environmental departments and NGOs, on the other (Benzaken & Renard 2011). The MPA is managed under the Marine Management Plan (MMP) of 2016 with the objective of protecting ecosystems, habitats and species, preventing the introduction of non-native species and managing marine natural resources sustainably. The MMP 2016 indicates the major pressures on Saint Helena's marine environment: pollution (including the one coming from sewage systems), commercial and recreational fishing, alien species, marine tourism, construction and mineral extraction (SHG 2016). The MMP represents the main strategic document for the marine environment of Saint Helena, thus going beyond the scope of the MPA (Interview SH-B). The issuing of this document implied a broad process of consultation so that once it was in place, it did not meet strong opposition (Interview SH-D).

In general, the OTs' governmental bodies have limited resources also for communication and engagement, which prevents them from informing about their work, responding to people's concerns, and involving them in new public decisions and actions (CEFAS & MMO 2019). However, environmental awareness in **Saint**

Helena seems quite strong and has improved in the last couple of decades (Interview SH-D). Here, policy development (e.g., the adoption of the EPO and MMP in 2016) has been possible thanks to an active community involvement that has solved initial frictions with some interests (namely fishers) on the creation of the island's MPA (Interviews SH-B and SH-A).

To sum up, it remains undisputed that public participation needs to be enhanced in biodiversity policy as well as in all environmental matters – as requested by the Aarhus Convention¹³ more than two decades ago (UNECE) – across many overseas territories of the EU and the UK. Notwithstanding the validity of this generalisation, the breadth and depth of public engagement varies in the different territories involved in the MOVE-ON project. Its improvement calls, however, for more funding also for education and public awareness activities.

¹³ For more information on the Aarhus Convention, please visit <https://www.unece.org/env/pp/treatytext.html> (last access: 0209.2020).

5. CONCLUSIONS

The report has indicated possible strategic as well tactical directions that the overseas territories of Europe – and eventually their central governments and the same EC – can undertake whether they are ORs of the EU or OTs of the UK. The report has also tried to provide contextualisation and arguments for the recommendations provided, although our sample of overseas territories is not representative of all the existing ORs and OTs. Nevertheless, the problems that these policy recommendations address are recurrent in many of them.

Often, the misalignment of international policy targets with national and subnational political agendas seem to hinder both the enactment and the execution (and enforcement) of many international and EU commitments. In other words, other policy priorities outside the environment policy area crowd national and subnational agendas. In some of the contexts we have analysed, the need for stronger economic development and more employment distort the political attention away from environmental concerns (like biodiversity and climate change) towards rentable economic sectors such as tourism.

Furthermore, the conservation of biodiversity and any commitment to mitigate and adapt to climate change is a cross-cutting issue that is difficult to put into practice because of the strong interactions with several sectors. Incoherence of objectives and uncoordinated policies and legal frameworks around a common objective and serious commitment towards sustainability is an issue experienced by many European overseas entities as well as numerous countries both in the North and South of the planet.

The entities we have analysed in the framework of the MOVE-ON Project are populated by strong vested interests (e.g., agriculture, fisheries, energy, urban development and tourism). Some economic sectors are very strong in many of the overseas European entities and have political influence on public decisions through their constituencies. These vested interests tend to oppose policy initiatives in favour of the coastal and marine environment. Their opposition also makes enforcement quite difficult in areas with low resource availability.

The same allocation of funds for the environment is negatively impacted by political agendas crowded with other socio-economic policy priorities.

In this conclusive section, we do not want to summarise all possible interventions proposed in the previous chapters. The purpose here is to stress the difficulty to put in place some of the public interventions that are recommended in this report.

Ultimately, wherever the policy recommendations are placed – i.e. in the delivery of public policies and the organisations of public administrations, the deployment of management interventions and funding or the process of decision-making – they all request a strong political commitment at the core of any actions to conserve biodiversity and mitigate the effects of climate change.

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Annexe 1: Matrix of indicators – International and European Policies and Strategies on Biodiversity and Climate Change

	<i>Legal framework and administrative arrangements</i>	<i>Policy instruments</i>	<i>Human drivers and pressures</i>	<i>Environmental conditions</i>
GLOBAL POLICIES				
CBD (1992; 1993)	<p><u>ARTICLE 6: NATIONAL STRATEGY</u> National Biodiversity Strategies and Action Plans (NBSAPs) are adopted; biodiversity conservation is integrated in policy action.</p> <p><u>ARTICLE 8: LEGISLATIVE FRAMEWORK</u> Necessary legislation and regulatory provisions for the protection of threatened species and populations are in place.</p>	<p><u>ARTICLE 8: PROTECTED AREAS</u> A system of protected areas is established.</p> <p><u>ARTICLE 11: FINANCIAL INCENTIVES</u> Incentives are adopted for the conservation and sustainable use of components of biological diversity.</p>	<p><u>ARTICLE 8: ALIEN SPECIES</u> Invasive alien species are prevented and controlled.</p>	<p><u>ARTICLE 8: ECOSYSTEMS AND SPECIES</u> Degraded ecosystems are restored and threatened species recover.</p>
ABTs (2010)	<p><u>TARGET 17: NBSAP</u> NBSAPs are developed, adopted and being implemented.</p> <p><u>TARGET 20: FINANCES</u></p>	<p><u>TARGET 3: FINANCIAL INCENTIVES</u> Incentives, including subsidies, harmful to biodiversity are eliminated, phased out, or reformed; incentives for the</p>	<p><u>TARGET 6: FISHERIES</u> Sustainable management of marine living resources.</p> <p><u>TARGET 8: POLLUTION</u></p>	<p><u>TARGET 5: HABITATS</u> Rate of loss of natural habitats is halved or brought close to zero; degradation and</p>

	<p>Mobilization of financial resources is increased.</p>	<p>conservation and sustainable use of biodiversity are developed and applied.</p>	<p>Pollution is brought to levels that are not detrimental to ecosystem function and biodiversity.</p> <p><u>TARGET 9: ALIEN SPECIES</u> Invasive alien species are prevented and controlled.</p>	<p>fragmentation are significantly reduced.</p> <p><u>TARGET 12: THREATENED SPECIES</u> Extinction of known threatened species is prevented.</p>
		<p><u>TARGET 11: PROTECTED AREAS</u> Protected areas are increased (17% terrestrial and inland water areas; 10% coastal and marine areas) and conserved.</p>	<p><u>TARGET 10: ECOSYSTEMS</u> Anthropogenic pressures on vulnerable ecosystems (e.g., coral reefs) is minimized.</p>	<p><u>TARGET 14: ECOSYSTEMS</u> Ecosystems that provide essential services are restored and safeguarded.</p> <p><u>TARGET 15: ECOSYSTEM RESILIENCE</u> Ecosystem resilience and contribution to carbon stocks is enhanced through conservation and restoration (of at least 15% of degraded ecosystems).</p>
UNFCCC (1992; 1994)	<p><u>ARTICLE 3, 4: CLIMATE POLICY</u> National policies and measures for climate change mitigation and adaptation are adopted and integrated in national development programmes.</p> <p><u>ARTICLE 4: NATIONAL INVENTORIES</u> National inventories of emissions by sources and removals by sinks (e.g., biomass, forests, oceans</p>	<p><u>ARTICLE 4: PROGRAMME OF MEASURES</u> National (and regional) programmes of mitigation and adaptation measures are formulated and implemented (i.e. limiting emissions of greenhouse gases and protecting greenhouse gas sinks and reservoirs).</p>		<p><u>ARTICLE 2: GHG CONCENTRATION</u> Stabilization of greenhouse gas concentrations in the atmosphere is achieved to allow ecosystems to adapt naturally to climate change.</p> <p><u>ARTICLE 4: GHG LEVELS</u> States return emissions of CO2 (and other GHGs not controlled by the Montreal</p>

	and all other terrestrial, coastal and marine ecosystems) are developed and communicated.			Protocol) to their 1990 levels.
Paris Agreement (2015; 2016)	<p><u>ARTICLE 4: CLIMATE CHANGE MITIGATION</u> Nationally Determined Contributions (NDCs) to lower the level of gas emissions are prepared every 5 years; mitigation strategies are formulated.</p> <p><u>ARTICLE 7: CLIMATE CHANGE ADAPTATION</u> Plans for adaptation are developed.</p>	<p><u>ARTICLE 5: MITIGATION MEASURES</u> Sinks and reservoirs of greenhouse gases (e.g., forests) are maintained and enhanced.</p> <p><u>ARTICLE: FINANCIAL INCENTIVES</u> Incentives are adopted for reducing emissions through sustainable management of forests.</p>		<p><u>ARTICLE 2: TEMPERATURE</u> The increase in the global average temperature is held to well below 2°C above pre-industrial levels; efforts are pursued to limit the temperature increase to 1.5°C above pre-industrial levels.</p>
Agenda 2030 (2015)	<p><u>TARGET 13.1: CLIMATE CHANGE</u> Resilience and adaptive capacity to climate-related hazards and natural disasters is strengthened.</p> <p><u>TARGET 14.C: IMPLEMENTATION</u> International law (see UNCLOS) is implemented to enhance the conservation and sustainable use of oceans and their resources.</p> <p><u>TARGET 15.9: BIODIVERSITY VALUES</u></p>	<p><u>TARGET 14.5: PROTECTED AREAS</u> At least 10% of coastal and marine areas are protected.</p> <p><u>TARGET 14.6: FINANCIAL INCENTIVES</u> Subsidies that contribute to overcapacity and overfishing, illegal, unreported and unregulated fishing are prohibited and eliminated.</p>	<p><u>TARGET 6.3: WATER</u> Water quality is improved by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.</p> <p><u>TARGET 14.1: MARINE POLLUTION</u> Marine pollution of all kinds is prevented and significantly reduced.</p>	<p><u>TARGET 6.6: WATER ECOSYSTEMS</u> Water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes are protected and restored.</p> <p><u>TARGET 14.3: OCEAN ACIDIFICATION</u> Impacts of ocean acidification are minimised and addressed.</p> <p><u>TARGET 15.1: TERRESTRIAL ECOSYSTEMS</u> Conservation, restoration and sustainable use of</p>

Ecosystem and biodiversity values are integrated into national and local planning and development processes.

TARGET 15.A: FINANCIAL RESOURCES

Financial resources are mobilised and increased to conserve and sustainably use biodiversity and ecosystems.

TARGET 14.2: ECOSYSTEM MANAGEMENT

Marine and coastal ecosystems are sustainably managed and protected.

TARGET 14.4: OVERFISHING

Harvesting is effectively regulated; overfishing, illegal, unreported and unregulated fishing and destructive fishing practices are ended.

TARGET 15.8: ALIEN SPECIES

Introduction of invasive alien species on land and water ecosystems is prevented and controlled.

terrestrial and inland freshwater ecosystems and their services are ensured.

TARGET 15.5: BIODIVERSITY

Degradation of natural habitats is reduced; biodiversity loss is halted; threatened species are protected.

EU POLICIES

EU Biodiversity Strategy

TARGET 4: FISHERIES

Sustainable management of marine living resources.

TARGET 5: ALIEN SPECIES

Invasive alien species are prevented and controlled.

TARGET 1: HABITATS AND SPECIES

100% more habitat assessments and 50% more species assessments under the Habitats Directive show an improved conservation status; 50% more species assessments under the Birds Directive show a secure or improved status.

TARGET 2: ECOSYSTEMS

At least 15% of degraded ecosystems is restored.

				<u>TARGET 6: BIODIVERSITY</u> Biodiversity loss has decreased.
MSFD (2008)	<u>ARTICLE 5: NATIONAL MARINE STRATEGIES</u> National marine strategies (NMSs) are adopted and implemented.	<u>ARTICLE 13: PROGRAMME OF MEASURES</u> A programme of measures is adopted (e.g., 'spatial protection measures'); the administrative framework is established.		<u>ARTICLE 9, 10: ENVIRONMENTAL STATUS</u> Good environmental status is determined (Art. 9) and environmental targets are established (Art. 10)
HB (1992; 1994)	<u>ARTICLE 11: SURVEILLANCE</u> Surveillance of habitats and species is ensured.	<u>ARTICLE 3, 6: PROTECTED AREAS</u> Special Areas of Conservation (SACs) are designated as part of the Natura 2000 network (Art. 3) and appropriately managed (Art. 6).	<u>ARTICLE: NON-NATIVE SPECIES</u> Introduction of non-native species is regulated to preserve relevant habitats and species.	<u>ARTICLE 12, 13: SPECIES PROTECTION</u> Strict protection of relevant species is ensured. <u>ARTICLE: ECOSYSTEMS</u> Favourable Conservation Status (FCS) of relevant habitats and species is maintained or restored. <u>ARTICLE: HABITATS AND SPECIES</u> Deterioration of relevant habitats and disturbance of relevant species in Natura 2000 sites (i.e. SACs SPAs) are avoided.
BD (2009; 2010)		<u>ARTICLE 3, 4: PROTECTED AREAS</u> Protected areas are created (Art. 3); Special	<u>ARTICLE 11: NON-NATIVE SPECIES</u> Introduction of species of birds which do not occur	<u>ARTICLE 2: WILD BIRDS</u>

Protection Areas (SPAs) are designated (Art. 4).

naturally in the wild state is regulated to safeguard local flora and fauna.

Wild birds' population is maintained to a certain level.
