



Implementation of EU and International policies for biodiversity and climate change

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Summary

In the framework of the MOVE-ON project, Task 5.1 analyses the implementation of international policies – developed globally and within the European Union – across a set of European overseas entities. After selecting key targets to assess national and subnational progress towards global and EU policy goals, the report investigates the state of implementation of EU and International policies for biodiversity and climate change in each of the MOVE project Anchor regions: four EU Overseas Entities – Reunion and French Guiana (France), the Canary Islands, (Spain) and the Azores (Portugal), and one Overseas Territory of the UK – Saint Helena. For each Anchor region, the report explains the institutional arrangements, strategies, action plans and policy measures for the protection of biodiversity and the fight against climate change. It analyses whether these instruments are consistent with relevant EU law (where it applies) and global commitments. The report also assesses how these instruments have been implemented and define factors that support or hinder their implementation. It finally draws major lessons and proposes lines of action to be further investigated in the next stages of the MOVE-ON project.

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1. INTRODUCTION

Activity 5 of the MOVE-ON project aims at producing a set of guidelines for a better national implementation of international commitments and the policies of the European Union (EU) (where applicable) in the overseas entities of Europe. These entities include the European Outermost Regions (ORs) and Overseas Countries and Territories (OCTs) of the EU, and the Overseas Territories (OTs) of the United Kingdom (UK).

More precisely, Activity 5 looks at how environmental protection and biodiversity conservation can support the achievements of international and EU obligations. The activity will, thus, embed biodiversity conservation in a broader context with the final purpose of showing the relevance of healthy ecosystems. The final message is that the protection (and restoration) of ecosystems is rewarding beyond the scope of biodiversity *per se*. This should help in the development of better policies and policy initiatives in the EU's ORs/OCTs and the UK's OTs, as well as at the EU level.

As a first step towards the objectives of Activity 5, Task 5.1 analyses the implementation of international policies for the protection of biodiversity – developed globally and within the EU – across a set of European overseas entities. After selecting key targets to assess national and subnational progress towards global and EU policy goals, the report investigates the state of implementation of EU and International policies for biodiversity and climate change in the MOVE project Anchor regions: four Outermost Region of the European Union – Reunion and French Guiana (France), the Canary Islands, (Spain) and the Azores (Portugal) – and Saint Helena (Overseas Territory of the UK). For these Anchor regions, the report explains the institutional arrangements, strategies, action plans and policy measures for the protection of biodiversity and the fight against climate change. It analyses whether these instruments are consistent with the policy framework of the European state to which these overseas entities belong or are linked, the relevant EU law, and global commitments. The report also assesses how these instruments have been implemented and defines factors that support or hinder their implementation. It finally draws major lessons and document good practices.

This chapter introduces the report by providing conceptual clarification on the implementation of international policies and their assessment (section 1.1.), explaining the methodological approach adopted (section 1.2) and the rationale of the case selection (section 1.3).

1.1. Conceptual clarifications

1.1.1. *The implementation of 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 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. 1998a). In the process of national implementation of international policies, we can distinguish four phases:

- the transformation of international commitments into national legislation (outputs), or enactment¹;
- the exercise of national legislation in the national administrative system through administrative decisions, programmes, actions, etc. (outputs), or execution;
- 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) (figure 1.1).

1.1.2. Implementation analysis

Implementation analysis (also referred to as implementation evaluation, implementation research, process analysis and process evaluation) aims at assessing how a policy intervention has been conducted and executed, thus leading to a set of outputs and

¹ 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).

outcomes. In this sense it differs from impact analysis (or impact evaluation, or impact studies) that focuses on the produced effects of a public policy in the problem it has addressed (e.g., biodiversity loss).

The first type of analysis falls in the social sciences while the second relies on economic and statistical competences (Martini & Sisti 2009). The former aims at understanding whether the original policy objectives have been respected during their execution. It traces and analyses the “causal mechanisms” that have led or not to the successful implementation of a policy and the achievements of the stated policy goals. Such causal mechanisms are studied through qualitative methods. While impact evaluation aims at assessing whether and to what extent a public policy has succeeded or failed (through quantitative methods), implementation analysis addresses why and how it has done so (Martini & Sisti 2009).

Several sets of factors can enter in the causal mechanisms lying behind the success or failure of a policy initiative:

- the order of change involved in a policy reform;
- the redistribution of costs and benefits among target groups;
- the policy design with its objectives and designated means;
- the chain and number of actors; the level of conflict among these actors;
- the availability of many types of resources (both administrative and political).

This report will investigate these aspects in the Anchor regions of the MOVE-ON project.

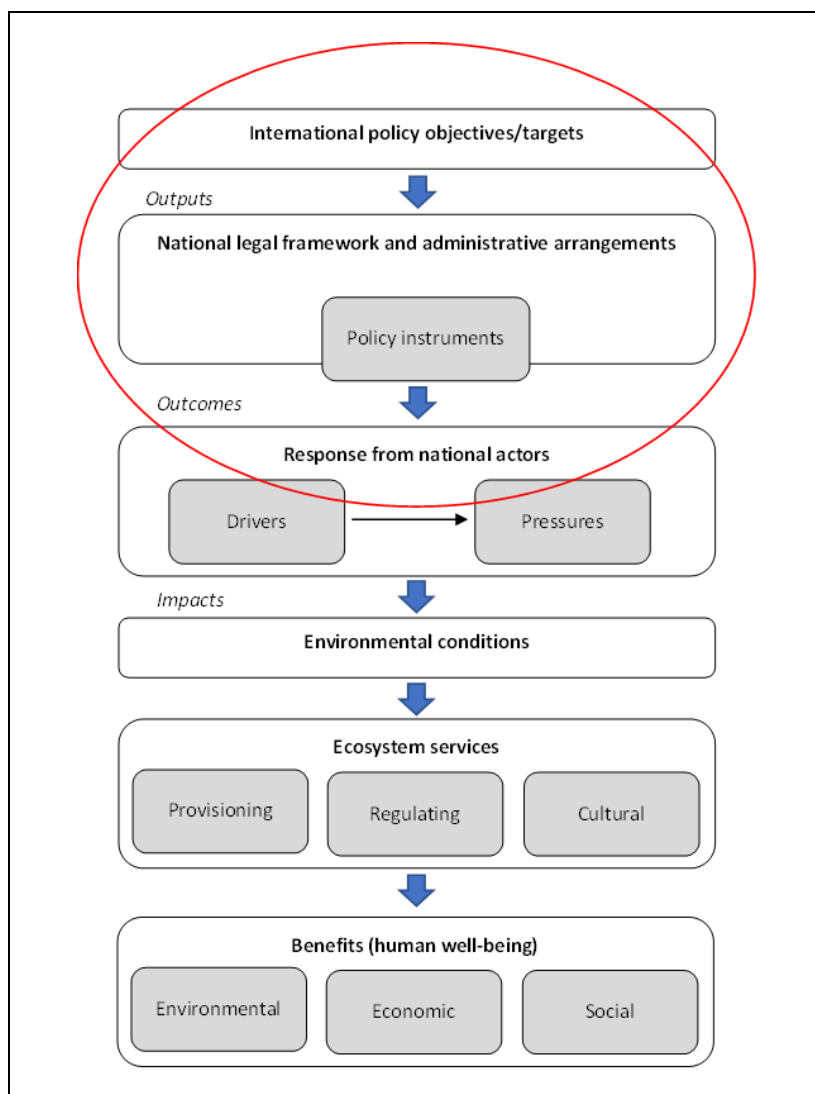
1.1.3. Considerations on the impact

Ecosystems need to be in good conditions to provide a set of services that, in turn, ensure multiple benefits for people (e.g., environmental, economic and social) (figure 1.1). Human well-being is, thus, strictly linked with “ecosystem conditions” through “ecosystem services” (Maes et al. 2018). Ecosystem conditions refer to ‘the physical, chemical and biological condition or quality of an ecosystem at a particular point in time’ (Maes et al. 2018: 11). The quality of an ecosystem depends on the pressures to which it is exposed, where “pressure” refers to a human or a natural process that alters the condition of an ecosystem (Maes et al. 2018). The human activity at the origin of this pressure is called “driver” (Rouillard et al. 2016); drivers fall in specific policy areas such as agriculture, fisheries, energy, transport, etc.

At the level of drivers, a public policy can regulate human activities impacting on the (marine) environment, for instance by abolishing subsidies that promote overfishing. At the level of pressures, a public policy can target the direct or indirect effect of a driver, e.g. by limiting the allowed emissions of pollutants (originating from many possible sources, or drivers). At the level of conditions, a public policy can establish standards based on physical, chemical and biological parameters, or call for full restoration of a habitat

(Rouillard et al. 2016; McFarland & Gerdes 2016). In figure 1.1, we include these considerations on drivers, pressures and conditions within the typical process of implementation of international policies. The figure also shows (in red) the focus of this report.

Figure 1.1: Implementation analysis and ecosystem services



1.2. Research design and methods

Task 5.1 has developed a set of performance indicators based on the main international/EU documents and policy objectives (or targets). This matrix of indicators has then been used to assess the progress of a group of overseas entities from the EU's ORs and OTCs, and the UK's OTs towards international and EU targets. More precisely, we have followed several distinct steps in our research.

STEP 1: SELECTION OF DOCUMENTS. In order to identify a number of international and EU policy targets we selected a set of relevant international agreements and EU directives. We began by screening all international and EU policy documents directly and indirectly related to biodiversity conservation. In this report we explain the rationale we followed in this selection and the focus we adopted in the identification of the main documents ruling biodiversity (Chapter 2).

STEP 2: IDENTIFICATION OF POLICY TARGETS. After reading the main documents that we had identified, we selected key policy objectives contained in both international and EU documents for the protection of biodiversity and the fight against climate change and adopted them as the targets of our investigation. These targets work as “performance indicators” in our analysis (Cole 2009). The focus on processes, outputs and outcomes that is typical of implementation analysis (see section 1.1) led to a simplification of the list of potential performance indicators. This simplification resulted in a more manageable scoreboard to be used in our study (Annex A). This approach echoes to some extent the “gap analysis” adopted in some disciplinary fields such as manufacturing, management and marketing. The application of this type of approach is recurrent in benchmarking in many more areas of research, from engineering to the evaluation of public programmes (Cole 2009; Marra et al. 2018) as suggested by Farrelly et al. (2021).

STEP 3: GAP ANALYSIS AND SCOREBOARD FOR INTERVIEWS. A gap analysis is a technique, a process or a procedure applied to find the distance (the “gap”) between the current situation and a proposed state taken as a point of reference (or future goal) for a business or functionality; it gravitates around two key questions: a) Where are we? b) Where do we want to be? (Marra et al. 2018). Therefore, we have prepared an evaluation questionnaire (or scoreboard) to collect data as suggested by Marra et al. (2018). This scoreboard was structured to collect data on the documents and policy targets we had selected (see Step 1) and was developed through several stages of refinement with the direct involvement of members of the project team. The scoreboard was not submitted to experts but represented the basis for our semi-structured interviews with experts. The data collected during the interviews helped us filling the scoreboard for each Anchor region.

A total of 16 semi-structured interviews were conducted, mainly in the Anchor regions of the project: Reunion (6 interviews with public authorities and NGOs); French Guiana (2 interviews with public authorities and NGOs); Canary Islands (2 interviews with public authorities and researchers); Saint Helena (3 interviews with public authorities and NGOs). Another 3 interviews were conducted with international NGOs and territorial associations

STEP 4: EMPIRICAL ANALYSIS. The set of indicators highlighted in our scoreboard was then applied as targets for national compliance to a selection of European overseas entities (i.e. EU's ORs and OCTs, and UK's OTs) for the purpose of assessing policy achievements, understanding major implementation gaps, and identifying success stories. For our

empirical analysis, we have relied on documents and interviews. A total of 16 interviews were conducted for the production of this report.

STEP 5: DATA VISUALISATION. Based on this scoreboard we have illustrated the results of our investigation through a summary table (table 7.1) that allows for an immediate visualisation of gaps and achievements (on the same point see Marra et al. 2018).

1.3. Case selection

There are 35 overseas entities belonging or historically linked to five Member States (MSs) of the European Union (EU) – Denmark, France, the Netherlands, Portugal and Spain – and the United Kingdom (UK) (Benzaken & Renard 2011). They are located in the Atlantic, Antarctic, Arctic, Caribbean, Indian Ocean and Pacific Ocean regions. Among these entities, 9 are Outermost Regions (ORs) and 13 are Overseas Countries and Territories (OCTs) of the EU (table 1.1). Another 14 Overseas Countries (OTs) are linked to the UK (table 1.2).

Table 1.1: Overseas entities of the European Union (EU)

MS of the EU	ORs of the EU	OCTs associated to the EU
Denmark		– Greenland
France	– French Guiana – Guadeloupe – Martinique – Mayotte – Reunion – Saint-Martin	– French Polynesia (COM) – New Caledonia (<i>Collectivité sui generis</i>) – Saint Barthelemy (COM) – Saint Pierre and Miquelon (COM) – Wallis and Futuna (COM) – <i>French Southern and Antarctic Territories (TAAF)</i> ²
Netherlands		– Aruba ³ – Bonaire – Curaçao – Sint Maarten – Saba – Sint Eustatius
Portugal	– Azores	

² The TAAF (*Terres Australes et Antarctiques Françaises* – French Southern and Antarctic Lands) have no permanent population (excluding scientists and military personnel).

³ Aruba, Curaçao, St. Maarten, Bonaire, Saba and St. Eustatius are all part, together with the country of the Netherlands, of the Kingdom of the Netherlands. The Kingdom of the Netherlands is a sovereign state made up of four countries. The Netherlands is one country. Aruba, Curaçao and St. Maarten constitute the other three remaining constituent countries, that have become independent since 2010 (as reported by an expert on the area). These three independent countries can, thus, sign international treaties in full autonomy from the country of the Netherlands. Bonaire, St. Eustatius and Saba (indicated together as BES) are instead part of the country of the Netherlands with the status of special municipalities. These three islands are known as the Caribbean Netherlands. The Caribbean Netherlands have a wide range of autonomy in the implementation of national laws and strategies. However, EU law does not apply to Bonaire, St. Eustatius and Saba (MEA 2013; confirmed by informal exchanges with experts from the area).

	- Madeira	
Spain	- Canary Islands	

Articles 349 and 355 of the Treaty on the Functioning of the European Union (TFEU) defines the level of EU involvement for these two groups of entities. They all are characterised by remoteness, insularity (with the exception of French Guiana and Adélie Land of TAAF), small size and population, economic dependence on a few products. These factors have severely restrained their development (Madruga et al. 2016).

The ORs, as part of the territory of their MSs, form also an integral part of the EU. It follows that the array of laws adopted by the EU (*acquis Communautaire*) applies in these entities as in any other part of the EU territory, although some derogations to EU law are possible (Menini et al. 2018). The OCTs have constitutional relationships with Denmark, France and the Netherlands and are associated to the EU but are not part of it. Therefore, EU directives (and the entire *acquis Communautaire*) do not apply here unless stated otherwise (Benzaken & Renard 2011; Kochenov 2012). OCTs have broad autonomy (e.g., in economic affairs, labour market, public health, home affairs and customs); defence and foreign affairs are usually competence of the MSs to which they are related⁴. This broad autonomy, with the exception of defence and foreign affairs, also characterises the OTs of the UK that have never been subject to the EU policy framework (with the exception of Gibraltar)⁵.

Table 1.2.: Overseas Territories (OTs) of the United Kingdom (UK)

OTs of the UK ⁶
- Anguilla
- Bermuda
- British Virgin Islands
- Cayman Islands
- Falkland Islands
- Gibraltar
- Montserrat
- Pitcairn Islands
- Saint Helena, Ascension and Tristan da Cunha Island
- Turks and Caicos Islands
- Sovereign Base Areas of Akrotiri and Dhekelia ⁷

⁴ Source: https://ec.europa.eu/international-partnerships/where-we-work/overseas-countries-and-territories_en (last access: 17.11.2020).

⁵ Contrary to all other British Overseas Territories, Gibraltar was a part of the European Union like the UK. It participated in the Brexit referendum and it ceased, by default, to be a part of the EU upon the UK's withdrawal.

⁶ Another category groups a number of territories *sui generis* (Kochenov 2012): Bailiwick of Guernsey, Isle of Man, Bailiwick of Jersey (Channel Island). They are not part of the UK but are internally self-governing dependencies of the Crown; they have never been members of the EU (FCO 2012).

- *British Antarctic Territory*
- *British Indian Ocean Territory*
- *South Georgia and South Sandwich Islands⁸*

These European overseas entities host very diverse and often unique ecosystems. For instance, they are home to one fifth of the world's coral reefs and lagoons; they also host more than 70% of Europe's biodiversity. Such richness in biodiversity makes them important at the global scale so that they are acknowledged as “biodiversity hotspots” for the numerous species, habitats and ecosystems they host. Furthermore, both ORs and OCTs contribute significantly to the extension of the European Exclusive Economic Zone (EEZ) making it the largest EEZ in the world covering 15% of the oceans (Benzaken & Renard 2011; Tanguy et al. 2017).

1.3.1. Macaronesia

Macaronesia is a biogeographical region composed of three ORs of the EU: the Spanish archipelago of the Canary Islands (eight islands), and the Portuguese archipelagos of Azores (including nine islands) and Madeira (two islands) (Madruga et al. 2016). It also includes the (extra-EU) state of Cape Verde. Biodiversity conservation in the European part of Macaronesia is set both at national level – by Portugal and Spain – and in the regions' environmental legislation (Madruga et al. 2016). Portugal and Spain have committed to several international environmental agreements and are subject to the EU law for biodiversity. Some of these policies have led to national and local legislative instruments and policy initiatives that we will analyse in detail for the two Anchor regions of the Canary Islands (Chapter 4) and the Azores (Chapter 5).

⁷ Akrotiri and Dhekelia is an OT of UK in Cyprus mainly used by the British Forces.

⁸ No population lives on British Antarctic Territory, British Indian Ocean Territory and South Georgia and South Sandwich Islands.

2. INTERNATIONAL GOVERNANCE OF BIODIVERSITY

Biological diversity is declining globally due to human activities and despite the efforts in terms of public policy put in place to address this problem (IUCN 2018). The oceans provide multiple functions and services (see above), from regulating climate to providing raw materials, energy and transportation; they are also a source of recreation and cultural identity (EIU 2015). Many public policies have been adopted to conserve biodiversity against its major challenges (e.g., destruction by human activities and climate change) and are analysed in this report to present a comprehensive – though not exhaustive – policy landscape as a backdrop to the MOVE-ON project. Our analysis on these policy efforts is based on a multi-level approach. Indeed, several layers of governance intertwine in the regulation of biodiversity, with multiple strains of policy developments taking place at the international, national and sub-national levels.

At the international level, we distinguish a global level of governance (i.e. at planetary scale) and a regional one. Many regional agreements and institutions exist, but we will focus only on the European Union taken here as a geo-political region currently composed of 27 Member States (MSs). Numerous international policies relate, directly or indirectly, to biodiversity protection (EU 2017; Maes et al. 2018; Rouillard et al. 2016; Soler Luque & KostECKA 2018). A complex array of directives, policies, communications and programmes have addressed the threats to the natural environment of the EU (EC 2020). Table 2.1 summarises the most important of these documents. As we explain in this chapter, we have distinguished a few core global and EU documents from the multitude of existing agreements, conventions, directives and strategies. Furthermore, since implementation analysis has, for its nature, a backward perspective, some recent documents (e.g., the new EU Biodiversity Strategy and the European Green Deal) cannot be the object of this report and are only mentioned as new policy developments.

At the national level, we will focus on four national Anchor regions within the EU: France, Portugal, Spain and Saint Helena (historically linked to the UK).

The importance of the subnational level for the protection of biodiversity has become unquestionable, as the following example shows. In 2010, the Conference of the Parties (COP) of the Convention on Biological Diversity (CBD) endorsed 'The Plan of Action on Sub-national Governments, Cities and Other Local Authorities for Biodiversity' and formally acknowledged the importance of the local level in the implementation of the CBD (Puppim de Oliveira et al. 2011). Efforts are, thus, needed to understand how the sub-national level can develop governance mechanisms in the protection of biodiversity. Across the countries chosen for our study, the subnational level of governance can include different entities between the national and local level (e.g., regions, provinces,

departments, counties, etc.) characterised by different institutional roles depending on the national constitutional framework. We will take this aspect into account in our analysis.

Table 2.1: Global and EU policy initiatives for biodiversity conservation

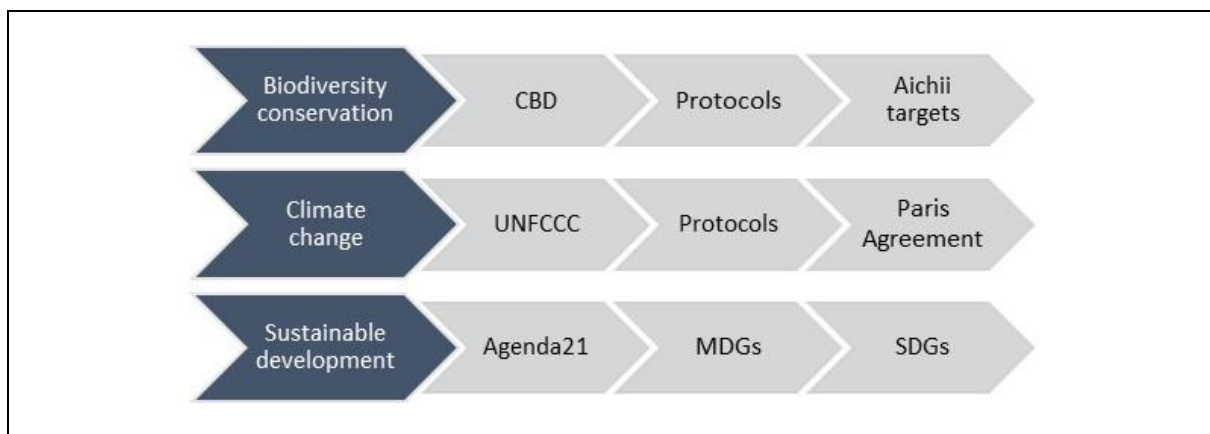
Global core documents	Other conventions
Convention on Biological Diversity	Convention on International Trade in Endangered Species (CITES)
Strategic Plan for Biodiversity 2011-2020 ("Aichi Biodiversity Targets")	Convention on Migratory Species (CMS)
<i>Post-2020 Global Biodiversity Framework (in preparation)</i>	Ramsar Convention on Wetlands
Agenda 2030	Convention to Combat Desertification
UN Framework Convention on Climate Change	United Nations Convention on the Law of the Sea
Paris Agreement	
<i>Glasgow Climate Pact (recently adopted)</i>	
EU core documents	Other EU policy initiatives
EU Biodiversity Strategy	Integrated Maritime Policy
Birds Directive (BD)	Common Fisheries Policy
Habitat Directive (HD)	Water Security and Drought Policy
Water Framework Directive (WFD)	Marine Spatial Planning Directive
Marine Strategy Framework Directive (MSFD)	Floods Directive
	Drinking Water Directive
	Bathing Water Directive
	Urban Waste-Water Directive
	Nitrates Directive
	Directive on Environmental Quality Standards
	Invasive Alien Species Regulation
	Bioeconomy Strategy
	Blue Growth Strategy
	Green Infrastructure Strategy
	Strategy on Adaptation to Climate Change
	2030 Climate and Energy Framework
	Seventh Environment Action Programme (to 2020)
	Action Plan for Nature, People and the Economy
	Circular Economy Action Plan
	Ocean Governance Communication
	Sustainable Europe Paper

2.1. Biodiversity policy at the global level

The contemporary environmental agenda addressing environmental change at the global level is the result of a long process that started in the 1970s (Wilkinson et al. 2013). Moves in the construction of international governance for biodiversity started already in the early 20th century, as documented by Arjjumend et al. (2016). However, the UN Conference on the Human Environment of 1972 – also known as the Stockholm Summit (from the city where it took place) – is considered as the real beginning of the international environmental law movement (Arjjumend et al. 2016). In the half-century that has passed since the Stockholm Summit, a complex array of international agreements have been developed to rule biodiversity.

In 1992, the United Nations Conference on Environment and Development (or the Rio "Earth Summit") led to the adoption of important binding and non-binding documents. Three binding conventions were adopted: Convention on Biological Diversity (CBD), United Nations Framework Convention on Climate Change (UNFCCC) and United Nations Convention to Combat Desertification (UNCCD). Due to the geographical scope of our study (on tropical, subtropical and temperate islands, coastal marine ecosystems and rainy forests), the UNCCD (focusing on countries affected by droughts and desertification, mainly in Africa) does not constitute a core document and will not be included in our analysis. Among the non-binding documents, Agenda 21 had an important role since it steered the international debate on sustainable development until 2015 (IUCN 2018). The three documents highlighted here – CBD, UNFCCC and Agenda 21 – also define three processes that have evolved across time and brought to new international agreements, commitments and targets; these three processes relate to biodiversity conservation, climate change and sustainable development (figure 2.1).

Figure 2.1: Biodiversity and global governance



2.1.1. Biodiversity conservation

The CBD was adopted in 1992 and came into force in 1993. It represents the main global instrument and most comprehensive international agreement for biodiversity conservation (Arjjumend et al. 2016; Benzaken & Renard 2011). Indeed, it is the first global agreement on all aspects of biodiversity: genetic resources, species and ecosystems. The CBD has three objectives: 'the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources' (CBD, art. 1).

The work related to the Convention and its implementation is led by the Conference of Parties (COP) (CBD, art. 23). Its Secretariat, instead, operates under the United Nations Environment Programme (UN Environment). The CBD has several protocols (e.g., Cartagena Protocol and Nagoya Protocol) that we will not discuss here (for details, see Arjjumend et al. 2016). Under article 26, each state that is part of the Convention regularly reports to the COP about the implementation of the provisions of this Convention and the effectiveness in meeting its objective. Both the EU and its MSs are Parties to the Convention.

The 2010 targets set by the CBD to preserve biodiversity were missed. As a response, in 2010, the COP of the CBD adopted a 10-year Strategic Plan to combat biodiversity loss in the world (Strategic Plan for Biodiversity for 2011-2020). The Plan contains 20 new targets – i.e. the Aichi Biodiversity Targets (ABTs) – aimed at achieving this overall objective (IUCN 2018). Both the CBD and the ABTs give relevance to the National Biodiversity Strategies and Action Plans (NBSAPs) as the primary instruments (and a legal commitment of the Parties) for the implementation of international commitments related to biodiversity linking national action to global goals (Hagerman & Pelai 2016 ; IUCN 2018).

As the United Nations Decade on Biodiversity 2011-2020 has come to an end, a new Post-2020 Global Biodiversity Framework is under preparation at the time of writing⁹ (Autumn 2021).

2.1.2. Climate change

International efforts to address climate change as a global challenge started with the UN Conference on Environment and Development (Rio, 1992). On that occasion, the UN Framework Convention on Climate Change (UNFCCC) was adopted; it entered into force in 1994. Several protocols on climate change followed (e.g., Kyoto Protocol). Negotiations on climate change have continued since then and have culminated in the Paris Agreement adopted in 2015 with the purpose of enhancing the implementation of the

⁹ Source: <https://www.cbd.int/conferences/post2020> (last access: 18.11.2021)

UNFCCC (Paris Agreement, Art. 2). Regular information on progress towards the objectives of the Paris Agreement is ensured under Article 13.

The Paris Agreement sets clear goals, i.e., holding the rise in the global average temperature to less than 2°C above pre-industrial levels – while pursuing efforts to limit it to 1.5°C – and to decrease emissions to net-zero to achieve this goal. In this context, national governments are requested to submit Nationally Determined Contributions (NDCs) every 5 years.

The COP26 summit brought parties together to accelerate action towards the goals of the Paris Agreement and the UN Framework Convention on Climate Change¹⁰. A new global agreement was reached: the Glasgow Climate Pact.

2.1.3. Sustainable development

Agenda 21 has led the international debate on sustainable development since 1992. Commitments to sustainable development were renewed in 2000 with the Millennium Development Goals (MDGs). In addition, with the purpose of putting sustainable development in practice, the full implementation of Agenda 21 was reaffirmed by the Johannesburg Plan of Implementation adopted at the 2002 World Summit on Sustainable Development that established a set of targets and timetables (La Viña et al. 2003).

As the era of the MDGs was coming to an end, in 2015, the UN adopted a new set of Sustainable Development Goals for the next 15 years contained in the 2030 Agenda for Sustainable Development. Natural ecosystems play a large part in the delivery of the SDGs (Mulligan et al. 2020). Four objectives are particularly important for the scope of our project: Goal 6 (water), 13 (carbon storage), 14 (oceans) and 15 (biodiversity). In particular, Goal 14 asks to conserve and sustainably use the oceans, seas and marine resources for sustainable development. Goal 15 asks to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

2.2. Biodiversity in the European Union

In the EU context, several policies aim at maintaining ecosystems in healthy conditions as their primary policy objective, so that ecosystems can deliver benefits to humans through ecosystem services. Important examples are the EU policies for agriculture, fisheries, water and the environment (Maes et al. 2018). Regarding the environment, Rouillard et al. (2016)

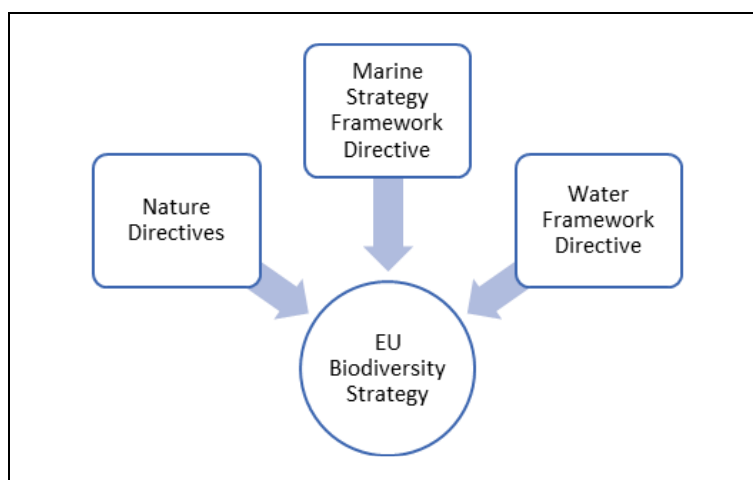
¹⁰ Source: <https://unfccc.int/conference/glasgow-climate-change-conference-october-november-2021> (last access: 18.11.2021).

define the EU environmental policy as extensive, complex and fragmented. We will mainly focus on the “biodiversity policy” of the EU (figure 2.2); we distinguish between strategic policy documents orienting the work of EU and national governments, and binding legislation that calls for compliance from Member States (MSs).

Several strategies have been issued by the EU in the field of environmental protection and related policy areas (table 2.1). The most important strategic document for the purpose of this project is the EU Biodiversity Strategy adopted and regularly updated by the EU since 1998 as a Contracting Party to the CDB (OSE 2012). The EU Biodiversity Strategy to 2020 (EU 2011) was adopted in 2011 with the aim of complying with the new Aichi targets; it aims at fighting the loss of biodiversity by setting six targets and 20 actions. Some progress has been observed towards these targets, but more efforts are still needed. The targets work as broad policy objectives with a high degree of flexibility to allow adaptation during national implementation. However, according to Rouillard et al. (2016), they fail to provide measurable targets for national managers and local administrators.

In 2020, the European Commission adopted a new EU Biodiversity Strategy for 2030 and an associated Action Plan with the purpose of protecting nature and reversing the degradation of ecosystems by 2030¹¹. The new Strategy also forms a core part of the current European Green Deal¹². However, for the purpose of implementation, the time passed since its adoption is too short for any assessment. For this reason, we will refer to the previous document (i.e. EU Biodiversity Strategy to 2020).

Figure 2.2: Biodiversity policy in the EU



¹¹ Source: https://ec.europa.eu/environment/strategy/biodiversity-strategy-2030_en#the-business-case-for-biodiversity (last access: 13.10.2021).

¹² Source: <https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal> (last access: 13.10.2021).

The EU Biodiversity Strategy refers – explicitly or not – to a set of EU sectoral policies (e.g., Common Fisheries Policy and Common Agricultural Policy) and environmental laws. The EU environmental legislation is built on three major pillars that consist of the following directives: the Birds Directive (BD) and Habitats Directive (HD), also known together as Nature Directives¹³; the Water Framework Directive (WFD) and the Marine Strategy Framework Directive (MSFD) (Maes et al. 2018) (figure 2.2). They constitute the “four main environmental directives” of the EU (table 2.2); the same accomplishment of the objectives of the EU Biodiversity Strategy strongly relies on the success of these four Directives (Rouillard et al. 2016). In particular, the Nature Directives constitute the legislative cornerstone of European biodiversity protection and establish an extensive network of nature protection areas called the Natura 2000 network (EC 2020). The MSFD is the first EU legislative instrument related to the protection of marine biodiversity across Europe (EASAC & JRC 2016). We will dedicate greater attention to these instruments, i.e. Nature Directives and the MSFD.

Table 2.2: EU main environmental directives

	Birds Directive¹⁴ (BD)	Habitats Directive¹⁵ (HD)	Water Framework Directive¹⁶ (WFD)	Marine Strategy Framework Directive¹⁷ (MSFD)
<i>Adopted</i>	2009	1992	2000	2008
<i>Entered into force</i>	2010	1994	2000	2008
<i>Object</i>	Wild birds	Natural habitats	Sustainable water management – inland surface waters, transitional waters, groundwater and coastal waters until one nautical mile	Marine environment – coastal waters beyond the limit of one nautical mile, seabed and subsoil

* The sites under Annex I of the BD, and Annex I and II of the HD form a network of protected areas known as the Natura 2000 Network

¹³ The Nature Directives apply to the Spanish and Portuguese outermost regions (Canaries, Madeira, Azores); they are voluntarily applied by Spain to Ceuta and Melilla. The two Directives do not apply instead to the French outermost regions (Rouillard et al. 2016).

¹⁴ Full name: Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the Conservation of Wild Birds (replacing Council Directive 79/409/EEC of 2 April 1979).

¹⁵ Full name: Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

¹⁶ Full name: Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy.

¹⁷ Full name: Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy.

Despite these efforts, the EU Directives have not been able to effectively address the loss of biodiversity (Rouillard et al. 2016). According to the European Environment Agency (EEA 2015), EU countries are still far from achieving many policy objectives for healthy ecosystems, although EU environmental policy has delivered some improvements. The same applies to global conventions: biodiversity loss continues unhalting worldwide (Vaughn 2010).

2.3. Definition of targets for coastal marine ecosystems

The use of targets (or indicators) in international environmental governance has increased in recent decades since the CBD and continued with the MDGs and SDGs. According to Hagerman and Pelai (2016), the idea lying behind the adoption of operational goals ("target approach") is the belief that measurable objectives will facilitate compliance with international commitments for sustainable development. Indicators contribute to measuring the progress and trends of the various countries towards different international policy targets for biodiversity, thus supporting environmental policies at the global and EU level, the related national policies and all policy initiatives at the sub-national level (Maes et al. 2018).

International policies at the global level and in the EU contain several policy objectives (or policy targets). These targets relate to different dimensions: ecosystems' conditions (e.g., maintaining bird populations and ensuring good status for freshwaters, transitional and coastal waters, and marine waters), the pressures to which ecosystems can be exposed (e.g. introduction of invasive alien species and emissions of pollutants) and the specific policy actions and measures that need to be implemented (e.g. adoption of strategic plans and establishment of protected areas). Table 2.3 lists a set of targets developed, starting from the international and EU documents we have selected, as explained in this chapter. The table groups these targets into four main categories in line with figure 1.1: requirements related to the national legal framework and administrative arrangements, with a special focus on recommended policy instruments (output level); expectations with regards to human drivers and pressures (outcome level); and environmental conditions (impact level).

As indicated in chapter 1, our implementation analysis will only focus on the output and outcome levels based on the conceptual, disciplinary and methodological reasons already explained. In other words, we will focus on the policy and management responses to the biodiversity crisis (e.g., the development of national biodiversity strategies, the adoption of national legislation to prevent or control invasive species and the adoption of several conservation instruments).

We acknowledge that there are substantial time lags between the moment when policy actions are decided, and outcomes are detectable. This means that 'it may take years or decades before these increased responses translate into positive changes in the state of biodiversity or reduced pressures' (Tittensor et al. 2014: 243). It could also happen that 'responses may be insufficient or inappropriate relative to pressures and fail to overcome the growing impacts of drivers that lead to biodiversity loss' (Tittensor et al. 2014: 243). However, we leave the measurement of the impacts of policy and management efforts in the state of biodiversity for other types of assessment (i.e. impact evaluation).

Furthermore, most targets lack explicitly quantifiable definitions of "success". Therefore, our analysis will not measure progress in terms of distance to a defined endpoint (see Tittensor et al. 2014). Our assessment will have a strong qualitative nature.



Table 2.3: Matrix of indicators

	<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> Mobilization of financial resources is increased.</p>	<p><u>TARGET 3: FINANCIAL INCENTIVES</u> Incentives, including subsidies, harmful to biodiversity are eliminated, phased out, or reformed; incentives for the conservation and sustainable use of biodiversity are developed and applied.</p>	<p><u>TARGET 6: FISHERIES</u> Sustainable management of marine living resources.</p> <p><u>TARGET 8: POLLUTION</u> 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><u>TARGET 5: HABITATS</u> Rate of loss of natural habitats is halved or brought close to zero; degradation and fragmentation are significantly reduced.</p> <p><u>TARGET 12: THREATENED SPECIES</u> Extinction of known threatened species is prevented.</p>

TARGET 11: PROTECTED AREAS

Protected areas are increased (17% terrestrial and inland water areas; 10% coastal and marine areas) and conserved.

TARGET 10: ECOSYSTEMS

Anthropogenic pressures on vulnerable ecosystems (e.g., coral reefs) is minimized.

TARGET 14: ECOSYSTEMS

Ecosystems that provide essential services are restored and safeguarded.

TARGET 15: ECOSYSTEM RESILIENCE

Ecosystem resilience and contribution to carbon stocks is enhanced through conservation and restoration (of at least 15% of degraded ecosystems).

UNFCCC (1992; 1994)

ARTICLE 3, 4: CLIMATE POLICY

National policies and measures for climate change mitigation and adaptation are adopted and integrated in national development programmes.

ARTICLE 4: NATIONAL INVENTORIES

National inventories of emissions by sources and removals by sinks (e.g., biomass, forests, oceans and all other terrestrial, coastal and marine ecosystems) are developed and communicated.

ARTICLE 4: PROGRAMME OF MEASURES

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).

ARTICLE 2: GHG CONCENTRATION

Stabilization of greenhouse gas concentrations in the atmosphere is achieved to allow ecosystems to adapt naturally to climate change.

ARTICLE 4: GHG LEVELS

States return emissions of CO₂ (and other GHGs not controlled by the Montreal Protocol) to their 1990 levels.

Paris Agreement (2015; 2016)

ARTICLE 4: CLIMATE CHANGE MITIGATION

Nationally Determined

ARTICLE 5: MITIGATION MEASURES

Sinks and reservoirs of greenhouse gases (e.g.,

ARTICLE 2: TEMPERATURE

The increase in the global average temperature is

	<p>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>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>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> Ecosystem and biodiversity values are integrated into national and local planning and development processes.</p> <p><u>TARGET 15.A: FINANCIAL RESOURCES</u> Financial resources are mobilised and increased to conserve and sustainably use biodiversity and</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 14.2: ECOSYSTEM MANAGEMENT</u> Marine and coastal ecosystems are sustainably managed and protected.</p> <p><u>TARGET 14.4: OVERFISHING</u> Harvesting is effectively</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 terrestrial and inland freshwater ecosystems and their services are ensured.</p> <p><u>TARGET 15.5: BIODIVERSITY</u> Degradation of natural habitats is reduced; biodiversity loss is halted; threatened species are</p>

ecosystems.

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

protected.

TARGET 15.8: ALIEN SPECIES

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

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.

TARGET 6: BIODIVERSITY

Biodiversity loss has decreased.

MSFD (2008)

ARTICLE 5: NATIONAL MARINE

ARTICLE 13: PROGRAMME OF

ARTICLE 9, 10: ENVIRONMENTAL

	<u>STRATEGIES</u>	<u>MEASURES</u>	<u>STATUS</u>
	National marine strategies (NMSs) are adopted and implemented.	A programme of measures is adopted (e.g., 'spatial protection measures'); the administrative framework is established.	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 Protection Areas (SPAs) are designated (Art. 4).	<u>ARTICLE 11: NON-NATIVE SPECIES</u> Introduction of species of birds which do not occur naturally in the wild state is regulated to safeguard local flora and fauna. <u>ARTICLE 2: WILD BIRDS</u> Wild birds' population is maintained to a certain level.

2.3.1. Identification of themes to guide the implementation analysis

From the information presented in Table 2.3, it is clear that several international targets across different international policy documents can be grouped into “themes”. In particular, with regard to the first two columns of table 2.3 (that represent the focus of our implementation analysis), several international obligations call for the issuing of:

- national legislations
- national strategies
- specific policy measures
- and budget allocation (or funding)

We have used these themes (as shown in table 2.4) to guide our implementation analysis (of national action vis-à-vis international commitments) and assess the progress of selected ORs and OCTs towards international objectives. These themes are mirrored in the scoreboard that was adopted for data collection and analysis (see Annex A). Data collection has made it clear that the portfolios for biodiversity, climate change and water management are often divided across different departments in both national and regional administrations. Access to multiple agencies for the purpose of data collection during our empirical research was not always easy. For this reason, we needed to narrow down our focus and decided to give priority to biodiversity and (where possible) climate change over water management. This explains why the WFD has been taken out of our investigation and is not reported in tables 2.3 and 2.4.

Table 2.4: Common themes across international policy documents

	CBD	ABTs	MSFD	HD	BD	UNFCCC	PA
A. Legislation	✓					✓	
B. Strategies	✓	✓	✓			✓	✓
C. Measures	✓	✓	✓	✓	✓		✓
D. Funding		✓					

3. IMPLEMENTATION OF EU AND INTERNATIONAL POLICIES FOR BIODIVERSITY IN FRANCE: THE CASES OF REUNION AND FRENCH GUIANA

With its 549 000 km², France is the European country with the largest surface area. The country has also more than 10 million km² of maritime area under its jurisdiction, which makes it the second largest maritime state after the United States (OECD 2016a; 2016b). Thanks to its terrestrial and maritime extension and geographical position across all oceans, France hosts a large variety of terrestrial and marine ecosystems (MEDDTL 2011). Unfortunately, France also figures among the ten countries with the greatest numbers of habitats in unfavourable state and endangered species.

Pressures on the environment (e.g., habitats degradation and pollution) coming from intensive agriculture, urbanisation, transport infrastructures and overfishing are particularly intense in overseas France, which is putting rich biodiversity hotspots in danger (OECD 2016a; 2016b). France's ORs and OCTs are home to a very rich biodiversity, but several species are threatened with extinction (Benzaken & Renard 2011).

France has 12 overseas entities classified as either outermost regions (ORs) or overseas countries and territories (OCTs) of the European Union (table 1.1). They present a wide geographic diversity since they are located in three regions of the world – in the Atlantic, Pacific and Indian oceans – thus covering a large area from the equatorial to the polar zone. All 12 overseas entities are islands with only two exceptions: *Terre Adélie* or Adélie Land (which is one of the five TAAF districts) and French Guiana (Benzaken & Renard 2011). French Guiana and Reunion constitute the two cases analysed in this chapter.

3.1. Biodiversity policy in France

The French national legal framework for biodiversity (that had been left untouched since the 1970s) experienced a major development in 2016 when a new law on biodiversity was adopted, i.e. *Loi n°2016-1087 pour la reconquête de la biodiversité, de la nature et des paysages* (table 3.2) (OECD 2016b). In compliance with the new law, a national biodiversity agency, i.e. *Agence Française de la Biodiversité* (AFB) was created in 2017 for the coordination of the various public agencies involved in the area of biodiversity. Since 2021, the French Office for Biodiversity¹⁸ (*Office français de la biodiversité*) (OFB) has taken the place of the AFB (Interview file MN04.III21).

¹⁸ Source: <https://ofb.gouv.fr> (last access: 18.03.2021).

In fact, already in the early 2000s, some changes took place in France's environmental policy with the adoption of Grenelle Law 1 (2009) and Grenelle Law 2 (2010) that have institutionalised public participation in environmental matters¹⁹ (OECD 2016a).

In addition to these laws, France has issued national strategies for biodiversity. These strategies have been adopted in compliance with the CBD that France ratified in 1994 – first National Biodiversity Strategy (2004) – and, later, the Aichi Targets and the EU Biodiversity Strategy (both issued in 2010) – second National Biodiversity Strategy (2011) (MEDDTL 2011). Through its first National Biodiversity Strategy, 'France has, for the first time, integrated the challenges of overseas entities into a national policy of biodiversity conservation, with an action plan specifically dedicated to these entities' (Benzaken & Renard 2011: 25). The second NBS confirms the country's commitment to the conservation of biodiversity in both mainland France and in its overseas territory with an encouragement for the adoption of regional (and local) strategies for biodiversity conservation through a participatory approach (MEDDTL 2011). The document also stresses the importance of protection and restoration of biodiversity and confirms the relevance of protected areas as a policy intervention to conserve biodiversity (MEDDTL 2011). A new (post-2020) National Biodiversity Strategy is being developed by the MET at the time of writing (Autumn 2021) (Interview file MN04.III21).

France is Party to the CBD also on behalf of all its overseas entities. However, the implementation of policy actions for biodiversity conservation in the overseas entities differs according to the legal status of each entity. To simplify a complex matter, we can distinguish two major situations (with internal variations and exemptions): the French state is the main authority for biodiversity conservation in the *départements et régions d'outre-mer* (DOM-ROM), while biodiversity conservation (and more broadly environmental matters) falls under the territorial jurisdiction of the local authorities in the OCTs (Benzaken & Renard 2011).

France has complied with other international and EU commitments. France adopted the Paris agreement in 2015 (OECD 2016a). *Loi n°2019-1147 relative à l'énergie et au climat* and the recent *Loi 2021-1104 portant lutte contre le dérèglement climatique et renforcement de la résilience face à ses effets* constitute the most important national

¹⁹ Following the adoption of the two laws, NGOs have been granted access to the National Council for Environmental Transition (*Conseil National de la Transition Écologique*) that is consulted during the drafting of national laws and strategies for biodiversity, the environment, energy and sustainable development – source: <https://www.ecologie.gouv.fr/cnte> (last access: 18.03.2021). Other institutional mechanisms of public engagement exist in France – see the General Council for the Environment and Sustainable Development (*Conseil Général de l'Environnement et du Développement Durable*) and the National Council for the Sea and Coast (*Conseil National de la Mer et des Littoraux*) (OECD 2016a). Finally, some international NGOs have French branches (e.g. Sea Shepherd, IUCN, WWF) that actively promote knowledge dissemination and public awareness of marine and coastal problems.

documents for climate change in France. The country has also had a National Climate Change Adaptation Strategy since 2006. As a MS of the EU, France needs to comply with the Nature Directives. However, these two Directives (i.e. Habitats and Birds Directives) do not apply to French ORs (Rouillard et al. 2016). Finally, France adopted the *Stratégie nationale pour la mer et le littoral* in 2017 in compliance with the MSFD and the MSP Directive.

3.2. Implementing biodiversity policy in France

In France, environmental policy is co-ordinated at the central level by the Ministry for the Ecological Transition²⁰ (*Ministère de la Transition écologique*) (MET) and conducted at the subnational level (in regions and departments) by decentralised government bodies²¹: the *Direction de l'environnement, de l'aménagement et du logement* (DEAL) in the regions and the *Directions départementales des territoires* (DDT) and *Directions départementales des territoires et de la mer* (DDTM) in departments. The work of MET is supported by two implementing agencies, i.e. the Agency for Ecological Transition (*Agence de la Transition Écologique*) (ATE) and the French Office for Biodiversity (*Office Française pour la Biodiversité*) (OFB).

The Ministry of the Sea (*Ministère de la Mer*) (MDM) is focused on sea-related policies (e.g. the national strategy for the sea and the coast), and the General Inspectorate of Maritime Affairs (*Inspection Générale des Affaires Maritimes*) (IGAM) carries out the necessary inspections. The Ministry also has decentralised services responsible for implementing maritime policies in each basin, i.e. the Interregional Directorates of the Sea (*Directions Interrégionales de la Mer*) (DIM). The Coastal Conservatory (*Conservatoire du Littoral*) (CDL) has a special role in the protection of the coast through the acquisition and restoration of threatened coastal areas.

While national laws rule environment and biodiversity in France across the entire territory, policy implementation in these areas is the responsibility of regions, *départements* and municipalities. In particular, the French "region", through the Regional Council, is the highest level of local governance, although there is no hierarchy among French sub-national authorities (i.e. regions, departments and municipalities). The Regional Council works as a strategic coordinator producing regional schemes and strategic documents with competences mainly on economic development and biodiversity. With very few exemptions (e.g., for subventions and funding), Regions in France do not have legislative power (Interview file MN05.III21).

²⁰ Source: <https://www.ecologie.gouv.fr> (last access: 18.03.2021).

²¹ Source: <https://www.ecologie.gouv.fr/services-deconcentres-du-ministere> (last access: 18.03.2021).

France embarked on a decentralisation process in the early 1980s, but the State is still very present in the regions through its decentralised services that respond to regional prefects (OECD 2016a). Overlaps between the central government, its national decentralised services and national public agencies, on the one hand, and multiple layers of subnational administration authorities, on the other hand, exist²²; such overlaps in competences and weak centre-local coordination are likely to hinder the implementation of national policies, particularly in the area of the environment (OECD 2016b).

The distribution of powers in the French territorial organisations has been clarified and improved under several acts in the last decade. Two laws, i.e. the MAPTAM²³ Act (2014) and the NOTRE²⁴ Act (2015) mark an important reform in the institutional arrangement of the state (OECD 2016a; 2016b). These two acts allocate a leading role in the domain of biodiversity to the regions. The same leading role is taken by the region (over the other subregional entities such as *Départements* and Municipalities) in the areas of climate change and energy (Interview file MN04.III21). Regions are also responsible for strategic planning in other policy fields such as transport, infrastructures, air pollution and waste management (including *hazardous waste*). The *Départements*, too, are important stakeholders in biodiversity policy – e.g., for the management of natural areas, non-hazardous waste and water use. Below the *Départements*, the Municipalities prepare local urban planning documents, collect and process household waste, and provide water distribution and wastewater treatment services. Under the NOTRE Act, they have been responsible for the management of aquatic environments and flood prevention since 2015 (OECD 2016a).

3.3. The case of Reunion

Reunion is a region and a *Département d'Outre-mer* (DOM) within the French institutional setting (Tanguy et al. 2017). It is also an OR within the EU and, like many other overseas entities, the island is affected by its distance from continental Europe (Tanguy et al. 2017).

²² Issue of bad horizontal coordination also exist at the central level. Some mechanisms have been put in place to enhance coordination at this level; important examples in the field we focus on are: the General Secretariat of the Sea (*Secrétariat Général de la Mer*) and the Interministerial Committee for the Sea (*Comité Interministériel de la Mer*).

²³ Full name: Loi du 27 janvier 2014 de modernisation de l'action publique territoriale et d'affirmation des métropoles; see <https://www.vie-publique.fr/loi/20674-loi-maptam-action-publique-territoriale-et-daffirmation-des-metropoles> (last access: 30.03.2021).

²⁴ Full name: *Loi portant sur la Nouvelle Organisation Territoriale de la République* (NOTRe); see <https://www.cohesion-territoires.gouv.fr/loi-portant-sur-la-nouvelle-organisation-territoriale-de-la-republique-notre#:~:text=Loi%20NOTRe-,Loi%20portant%20sur%20la%20nouvelle%20organisation%20territoriale%20de%20la%20R%C3%A9publique,attribu%C3%A9es%20%C3%A0%20chaque%20collectivit%C3%A9%20territoriale> (last access: 18.03.2021).

Environmental governance in Reunion is multi-layered; it includes national, regional, departmental²⁵ and community-level authorities. The national government is present in the island through the *Préfecture*: it supervises the activities of the decentralised services of the state such as the *Direction de l'Environnement, de l'Aménagement et du Logement* or DEAL. Established in 2011, the DEAL executes and enforces the policy decisions of the MET at the subnational level with regard to biodiversity (Tanguy et al. 2017).

As a region of France, Reunion is bound to comply with several international conventions signed by the State, such as the CBD and the UNFCCC (Tanguy et al. 2017). In its action, the Region is also guided and constrained by the national legislative framework (table 3.2) and its alignment with EU law.

In addition to the national strategies, the island has also issued several strategic documents valid on its jurisdiction. As requested under the national Law for Biodiversity of 2016, Reunion has adopted the *Stratégie Réunionnaise pour la Biodiversité* (SRB) in 2014 for the period 2014-2020²⁶ (Tanguy et al. 2017; Interview file MN04.III21). The document was signed by the State (through DEAL) and the *Département* as well as the Region. It translates the second national biodiversity strategy of 2011 at the regional level (Tanguy et al. 2017) and constitutes the first regional strategic document on biodiversity bringing together the key state actors of Reunion (i.e. State, Region and *Département*) (Interview file MN04.III21). 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* (Tanguy et al. 2017).

Furthermore, after a general consultation that took place in 2020, Reunion adopted a regional strategy that acts as implementation of the *Stratégie nationale pour la mer et le littoral* (2017) and covers the period 2020-2026²⁷: *Document stratégique de bassin maritime Sud océan indien*. The document covers the French regions and territories of the Indian Ocean (i.e. Reunion, Mayotte, TAAF and the scattered islands).

The current SRB will be followed by a new strategic document that is currently under development with the engagement of different stakeholders. This process leading to a new SRB has been delayed in 2020 due to the COVID pandemic. The new SRB will be shaped around the lines of action of the new regional biodiversity agency that should

²⁵ The Department is the island's largest landowner, with 105,000 ha of land natural and forest belonging to it (Tanguy et al. 2017).

²⁶ However, not all French regions have complied with this national obligation and adopted a regional strategy for biodiversity (Interview file MN04.III21).

²⁷ 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).

start its activities in 2022. Indeed, the Law on Biodiversity of 2016 (table 3.2) gives the French regions the possibility to create a regional biodiversity agency (*Agence régionale de la biodiversité* or ARB) (Interview file MN04.III21). This agency is conceived as regional translation of the *Office Français de la Biodiversité* (OFB) (Interview file MN04.III21).

France's biodiversity policy relies on a set of instruments, such as regulatory tools (e.g., protection of areas, habitats and species), economic instruments (i.e. those financing biodiversity protection) and other instruments (such as restoration through direct intervention) (OECD 2016a).

PROTECTION OF AREAS. 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 (OECD 2016b). The level of protection is higher in overseas France (e.g., Reunion and French Guiana) (OECD 2016a). In total, 16.5% of French waters (both in metropolitan and overseas France) are now marine protected areas²⁸. France has also established protected areas as part of the Natura 2000 network. This network gives effect to the two EU Nature Directives through the creation of special conservation zones (ZSC) for the conservation of habitat types (under the Habitats Directive) and special protection zones (ZPS) for the conservation of wild bird species (under the Birds Directive) (OECD 2016a).

Reunion has developed a strong regulatory and management framework for the protection of its areas on land and in the seas (Interview file MN15.VII21). In particular, in the wake of France's commitments to international and EU obligations, stronger protection measures for MPAs have been put in place (Interview file MN01.VII21). 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). Its management plan is the *Charte du parc national* (adopted in 2014). The island also has two national nature reserves. The first is the *Réserve Naturelle 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 Naturelle Nationale de l'Étang de Saint-Paul* (created in 2008) (Tanguy et al. 2017; Interview file MN04.III21). The Region (as well as the State and the *Département*) is present in the management bodies of both the National Park and the Marine Reserve (Interview file MN04.III21). Several other areas are under some form of protection (as reserves) for habitats and species (Tanguy et al. 2017).

PROTECTION OF SPECIES. France has improved its protection of certain habitats; it has also elaborated action plans to restore and conserve populations of endangered species that have proven to be successful (OECD 2016a). National action plans for species

²⁸ The national objective (stated by the Grenelle I Law of 2009) is to reach 20% of waters under regulatory protection by 2020 (OECD 2016a; 2016b).

conservation are being implemented in Reunion and French Guiana, among other overseas regions (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 in Reunion are protected under several legislative and regulatory instruments (Tanguy et al. 2017): *Stratégie Réunionnaise pour la Biodiversité (SRB)*; *Stratégie de conservation de la flore et des habitats de La Réunion*; *Stratégie de lutte contre les espèces invasives à La Réunion*. These regional initiatives for the protection of species add to the strong national legal framework. However, according to our interviews, the flora in Reunion is still in danger (Interview file MN15.VII21). A major obstacle in biodiversity conservation in Reunion is the control of IAS despite the numerous policy initiatives put in place (Interview file MN04.III21).

OTHER MEASURES. Some restoration measures are in place in Reunion (Interview file MN01.VII21).

Although actions for biodiversity protection have been confirmed during field research, they do not seem to be sufficient and are jeopardised by several anthropogenic pressures (e.g., tourism, waste, land use for urbanisation and infrastructures, and fisheries) and diverging interests (Interview file MN01.VII21).

3.3.1. Major constraints in implementation

Some important factors play a crucial role in the implementation of French biodiversity commitments to international and European targets in Reunion.

First, in Reunion, there is not only political awareness about the environment but also full political attention to biodiversity; such attention is especially due to economic reasons. The good conservation of the environment is important to attract tourists, thus contributing to feed the regional economy (Interview file MN05.III21). However, the first priority on the political agenda for the Region is the creation of jobs to fight unemployment, particularly among younger people (IEDOM 2015). The rate of unemployment was almost 30% in 2014; it was about 55% for people between 15 and 24 years of age in the same year (Tanguy et al. 2017). This is likely to create a clear advantage in the eyes of policy-makers for some sectors (e.g., tourism). The items present on the regional political agenda also impact on the allocation of funds. In general terms, public funding is constrained by other (social and economic policy) priorities, such as economic growth and job creation. Funds allocation remains still limited for biodiversity conservation, which is often considered a priority of lower importance (Tanguy et al. 2017; confirmed by Interview file MN01.VII21).

Second, several flaws affect the governance of biodiversity in Reunion (Interview file MN04.III21). The distribution of powers and competences across the multi-layered French administrative system creates ambiguity among the many political and administrative actors and often determines conflicts in the territory (Interview file MN01.VII21). In the absence of efficient coordination among regional actors and between regional and national competent authorities, the same implementation of national, EU and international policies is jeopardised (Interview file MN15.VII21). For instance, France issued its official document for Marine Spatial Planning (MSP) for the whole country (including ORs) in 2017 (table 3.2) in compliance with the EU MSP Directive²⁹. The overlapping of competences among jurisdictions with blurred delimitations slowed down the implementation of the EU Directive for MSP across the French territory. In addition, many ORs lacked the administrative capacity (in terms of resources, skills and time) to produce an MSP (Interview file MN05.III21). Better coordination should be pursued both among regional actors and between national and regional competent authorities. The creation of a *Agence Régionale de la Biodiversité* could improve this aspect (Interview file MN15.VII21).

Third, the State administration is compliant with international and EU commitments, but subnational elected representatives may be reluctant to adhere to new national and international obligations for the protection of biodiversity. Conservation is, indeed, not always prioritised by regional and local politicians. Other issues, such as tourism and fisheries, seem to prevail in the political action that is heavily exposed to the strong pressure of local (economic) interests (Interview file MN01.VII21). Tourism is just one example of the many "conflicts of use" of the (marine and coastal) environment that exist in the region (Interview file MN05.III21).

If conflicts with social and economic interests can be partially solved through public participation, a culture of public participation is still too weak in Reunion. On one side, decision-makers are not used to involve citizens in public decisions – despite some rhetorical commitment. On the other side, citizens are not familiar with public engagement (Interview file MN15.VII21).

Fourth, public funding for environmental management in Reunion is limited; a large part of this funding is dedicated to water management. Within the environmental policy area, biodiversity conservation is neglected in terms of budget allocation. To some extent, EU funding has compensated for the lack of adequate national and regional funds. Even when financial resources are made available, the lack of staff can play against the effective implementation of policy objectives (Interview file MN15.VII21).

²⁹ Full name: Directive 2014/89/Eu of the European Parliament and of the Council of 23 July 2014 establishing a framework for Maritime Spatial Planning.

3.4. The case of 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* have 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, region and *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 MN15.IX21). It is accountable to several national Ministries such as the one responsible for the environment (Interview file MN15.IX21). 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 CTG has some responsibilities in the environmental field but no legislative power (Interview file MN15.IX21). Like all other *départements* and *régions d'outre-mer*, French Guiana is under the national legislative framework adopted for all France. However, some adaptations to the national laws and 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 MN15.IX21).

No regional adaptation effort of the national biodiversity strategy was reported during our fieldwork (Interview file MN23.XI21); yet a consultation is under implementation for the establishment of the National Biodiversity Strategy 2021-2030³⁰

The situation is different for the regional implementation of the *Stratégie nationale pour la mer et le littoral* (2017). A *Document stratégique de bassin maritime pour la Guyane* is under development and will be submitted to institutional and public consultations in 2022.

PROTECTION OF AREAS. French Guiana has 6 national natural reserves and one regional natural reserve. Protected areas receive adequate funding from the State. Most 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

³⁰ Source: <https://strategie-nationale.biodiversite.gouv.fr> (last access: 31.01.2022).

Charte adopted in 2013. Its governing body brings together representatives from the local community and the central State. There are two marine protected areas: Amana³¹ 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).

PROTECTION OF SPECIES. Some species are at risk (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).

OTHER MEASURES. No restoration initiatives are in place in the region (Interview file MN23.XI21).

3.4.1. Major constraints in implementation

The implementation of French biodiversity commitments to international and European targets in French Guiana presents specific features.

First, 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 MN15.IX21). This might create some frictions with the CTG that aims to have more competence and decision-making power on its territory (Interview files MN15.IX21 and MN23.XI21).

Second, national and regional agendas diverge in terms of policy prioritisation. 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 MN15.IX21 and MN23.XI21).

Third, 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

³¹ Amana was initially a terrestrial PA, but the very rapid erosion of the coastline turned part of its area into coastal/marine ecosystems.

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 MN15.IX21).

Fourth, 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 MN15.IX21).

3.5. Final remarks

3.5.1. Reunion

The priorities that call for political intervention in Reunion as identified by local stakeholders and reported by Tanguy et al. (2017) include: a) strengthening the management of protected areas (through updated legislative and regulatory frameworks and the coordination of management bodies); b) enhancing the protection and restoration of some highly threatened species and habitats, while improving the control of IASs; c) increasing the existing knowledge on species. Several additional recommendations came out of our investigation.

First, the Region should use its regional strategy for biodiversity to promote conservation across policy areas.

Second, adequate communication with stakeholders and awareness building needs to be enhanced (Interview file MN05.III21). The enhancement of public engagement seems to be needed in France in general and in the entire spectrum of environmental policy (OECD 2016b). According to an interviewee in Reunion, public participation in the island is improving slowly but, ultimately, decisions are taken behind closed doors. On the other side, citizens' pressure on decision-makers is traditionally very weak and punctuated by episodes of civil disobedience, protest and demonstrations. On some occasions, citizens' disagreement can find expression in very violent forms of protest (e.g., death threats) (Interview file MN01.VII21).

Third, the involvement of subnational authorities (particularly from overseas France) seems to be rather weak in the adoption of national strategies. According to the OECD (2016a), under the influence of the results of the Grenelle Forum, the process of adoption of the Second National Biodiversity Strategy was more participative than the one leading to the

previous Strategy. However, the involvement of subnational authorities was still rather weak.

Finally, France should not only improve coordination with its overseas entities but also promote their collaboration with the overseas entities of other Member States of the EU in order to strengthen capacity (Tanguy et al. 2017).

3.5.2. *French Guiana*

The territory of French Guiana is very well preserved. 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. This combination is fundamental in an area where the local population is used to perceive environmental protection as a constraint to their social and economic development that is long due (Interview file MN15.IX21).

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 remain unknown (Roger et al. 2016). Likewise, weak knowledge of the territorial fauna and flora affects the protection of species (Interview file MN23.XI21).

Table 3.2: Summary table for Reunion and French Guiana (France)

		REFERENCE	Reunion	French Guiana
A. LEGISLATION	<i>Biodiversity conservation</i>	CBD	- <i>Loi pour la reconquête de la biodiversité, de la nature et des paysages</i> (2016)	
	<i>Climate change</i>	UNFCCC	- <i>Loi relative à l'énergie et au climat</i> (2019) - <i>Loi portant lutte contre le dérèglement climatique et renforcement de la résilience face à ses effets</i> (2021)	
B. STRATEGIES	<i>Biodiversity conservation</i>	CBD, ABTs	- Second National Biodiversity Strategy (2011) - <i>Third National Biodiversity Strategy (2021-2030) is under development</i>	
			- <i>Stratégie Réunionnaise pour la Biodiversité</i> (2014) - <i>Stratégie de conservation de la flore et des habitats de La Réunion</i> - <i>Stratégie de lutte contre les espèces invasives à La Réunion</i>	
	<i>Marine environment</i>	MSFD	- <i>Stratégie nationale pour la mer et le littoral</i> (2017)	
			- <i>Document stratégique de bassin maritime Sud océan indien (2020-2026)</i>	A <i>Document stratégiques de bassin maritime pour la Guyane</i> is under development and will be submitted to institutional and public consultations in 2022
<i>Climate change</i>	UNFCCC, PA	National Climate Change Adaptation Strategy (2006)		
C. MEASURES	<i>Biodiversity protection</i>	CBD, ABTs MSFD	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 *** The Nature Directives do not apply to French ORs	
			- <i>Parc national de La Réunion</i> - <i>Réserve nationale marine de La Réunion</i> - <i>Réserve de l'étang de Saint-Paul</i> - Regional strategies (see above) - Action plans for the protection of species and against IAS	- Parc Amazonien (2007) - Two MPAs (Amana and Gran Connétable) - Regional natural reserve
	<i>Biodiversity restoration</i>	CBD, ABTs	Some restoration measures are in place	No restoration measures are in place



4. IMPLEMENTATION OF EU AND INTERNATIONAL POLICIES FOR BIODIVERSITY IN MACARONESIA: THE CASE OF CANARY ISLANDS (SPAIN)

Spain is one of the most diverse European country in terms of biodiversity. It hosts numerous species and important habitats within the EU. Regions of main interest for their biodiversity are the mountainous zones, coastal areas and insular regions, especially those of the Canary Islands. However, the status of biodiversity in Spain is threatened by several human activities: 1) land conversion (i.e. changes in land use) due to coastal urbanisation and tourism; 2) over-exploitation of natural resources; 3) and pollution from agriculture and manufacturing. Invasive alien species and climate change constitute additional pressures on the Spanish environment (OECD 2015b).

4.1. Biodiversity policy in Spain

For a long time, Spain did not have a consolidated national environmental law, but several legislative texts supported by multiple strategies and programmes. The country has made major changes to improve its legislative framework for the protection of biodiversity since the early 2000s. Such policy change has occurred in response to EU legislation and international obligations (OECD 2015a). Spain's biodiversity policy rests on two key documents: Law 42/2007 on Natural Heritage and Biodiversity³² (adopted in 2007) and Law 41/2010 on the Protection of Marine Environment³³ (issued in 2010) (table 4.1).

Law 42/2007 on Natural Heritage and Biodiversity constitutes the core legal document for the conservation, restoration and sustainable use of biodiversity and ecosystem services in Spain. The new law incorporated Spain's commitments to several international agreements, such as the CBD, and transposed the Habitats Directive of the EU. It consolidated several previous national biodiversity laws and established the Strategic Plan on Natural Heritage and Biodiversity (*Plan Estratégico del Patrimonio Natural y la Biodiversidad*) as pivotal for Spain's strategic planning in the domain of nature conservation (OECD 2015a, 2015b; Real Decreto 1274/2011). The Strategic Plan supports the implementation of Law 42/2007, is in line with the EU Biodiversity Strategy and works as

³² Spain ratified the CBD in 1993. Under the CDB's legal obligations, Spain adopted its first national strategy for biodiversity in 1998 (*Estrategia Española para la Conservación y el Uso Sostenible de la Diversidad Biológica*). The Strategy called for a new law that was enacted in 2007.

³³ Another important law for marine and coastal areas was issued in 2013, i.e. the Law 2/2013 for the Protection and Sustainable Use of the Coast. Compared to its predecessor – Law of Coasts (22/1988) – this new law has enhanced the measures adopted to protect the coast, prevent habitats fragmentation and avoid loss of coastal biodiversity (OECD 2015a).

the National Strategy requested by the CBD (OECD 2015b; Madruga et al. 2016). Spain's current Strategic Plan was issued in 2011 for the period 2011-2017. 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.

In 2010, Spain adopted Law 41/2010 on the Protection of Marine Environment in compliance with the MSFD of the EU (table 4.1). While Law 42/2007 constitutes the major legal instrument governing all aspects of biodiversity policy, Law 41/2010 establishes a comprehensive framework for the preservation of marine ecosystems in Spain. The new law for the marine environment establishes a set of targets, for instance, protecting 8% of Spain's marine area by 2014 and 20% by 2020. The law gives relevance to marine protected areas and has established the Spanish Protected Marine Areas Network, which includes Natura 2000 sites and marine reserves for sustainable fishing. Under the new law the country also commits to develop marine strategies for its five marine demarcations: North Atlantic, South Atlantic, East-Balearic Sea, Gibraltar Strait/Alboran Sea and the Canary Islands (OECD 2015a).

Spain has just adopted (in May 2021) its first national law about climate change, i.e. *Ley 7/2021 de cambio climático y transición energética*. A National adaptation strategy was issued in 2020.

4.2. Implementing biodiversity policy in Spain

After the adoption of a new Constitution in 1978, Spain started a process of decentralisation that has turned the country into a quasi-federal system. Today, Spain is divided into 17 autonomous regions called *Comunidades Autonomas* (CAs) and two autonomous cities (i.e. Ceuta and Melilla) with the consequent redistribution of political and administrative power between central and autonomous authorities. Among the CAs, the Canary Islands are taken as a case study in this research. Each CA has its own institutions – that mainly consist of a president, an elected legislative assembly and a government (with executive and administrative functions) – and is governed by its own legal and regulatory framework. The different CAs benefit from different levels of autonomy (OECD 2015a).

The Spanish constitutional setup recognises competences to both the state and the CAs. Competences can indeed be exclusive, shared or concurrent. In the case of concurrent competences, the state only defines the essential aspects in a framework legislation and leave its completion to the CAs through regional laws and regulations. Most policy areas are a shared responsibility between the State and the CAs, which can generate ambiguity, inconsistency and duplication.

In the policy area of environment, the central administration sets the main legal framework and planning for environmental policies for the whole country and is responsible for the transposition of EU environmental law and multilateral environmental agreements (MEAs). The Ministry for the Ecological Transition and the Demographic Challenge (*Ministerio para la Transición Ecológica y el Reto Demográfico*) (MITECO) is responsible for the development of national policies for biodiversity conservation, marine affairs, coastal management and climate change (Interview file MN13.VII21). The national administration also steers the implementation of environmental policies at the regional and local level. The enforcement of the national legislation for biodiversity conservation is a competence of the Service for Nature Protection (*Servicio de Protección de la Naturaleza*) (SEPRONA) (OECD 2015a; 2015b).

Environmental governance in Spain is highly decentralised (OECD 2015b). The 17 CAs have a high degree of autonomy in the domain of environment³⁴. Each CA usually has an environmental department (*Consejería*) (OECD 2015a). In the Canary Islands, two departments (*Consejerías*) are related to environment: the Department for Agriculture, Livestock and Fisheries (*Consejería de Agricultura, Ganadería y Pesca*), and the Department for Ecological Transition, Fight against Climate Change and Territorial Planning (*Consejería de Transición Ecológica, Lucha contra el Cambio Climático y Planificación Territorial*)³⁵. The Canary Islands also have two regional agencies for biodiversity and climate change: *Agencia Canaria de Protección del Medio Natural* and *Agencia Canaria de Desarrollo Sostenible y Cambio Climático* (Interview file MN13.VII21).

The CAs have primary responsibilities for the implementation of biodiversity policies. They are crucial in the execution and enforcement of environmental policies by defining environmental priorities in their territory, adopting given policy instruments, deciding funding programmes, issuing licenses and permits and sanctioning non-compliance (OECD 2015a). At the local level, provinces and municipal authorities can have some environmental regulatory competences (e.g., licensing) (OECD 2015b).

Several mechanisms ensure the vertical coordination between MITECO and the central administration, on the one hand, and the subnational authorities, namely the Sectoral Conference on the Environment and the State Commission on Natural Heritage and Biodiversity³⁶. Despite such efforts, central-regional relations often remain blurred, complex and weakened by the conflictual claim on regional autonomy. This has often

³⁴ There are few exceptions that fall under national competence: national parks, coastal areas, transport infrastructures and water resources (OECD 2015a).

³⁵ Source: <https://www.gobiernodecanarias.org/organigrama> (last access: 02.07.2021).

³⁶ At the horizontal level, inter-ministerial coordination is ensured through commissions (e.g., the Inter-ministerial Commission on Marine Strategies and the one on Climate Change) (Royal Decree 715/2012). Bodies also exist for the coordination across ACs (e.g., Environmental Authorities Network and Environmental Inspection Network). Co-operation among local authorities is fostered by several networks such as the Spanish Federation of Municipalities and Provinces (OECD 2015a).

led to ambiguities, inconsistencies and voids with regard to institutional roles and competences. Decentralisation has hindered the adoption of a coherent policy framework for biodiversity and the application of environmental requirements consistently across regions. Uncertainties often exist also regarding the roles of regional, provincial and municipal levels of government in the provision of environmental services (OECD 2015a).

4.3. The case of the Canary Islands

The Canary Islands represents one of the richest territories in Spain and in Europe for its biodiversity (Benzaken & Renard 2011). The region consists of seven major islands divided into two administrative provinces: the Province of Las Palmas (including the islands of Gran Canaria, Fuerteventura and Lanzarote) and the Province of Santa Cruz (including the islands of Tenerife, La Gomera, La Palma and El Hierro). The archipelago also has four minor islands (i.e. La Graciosa, Alegranza, Montaña Clara and Lobos) and several small islets and rocks. The region largely depends on tourism for its economy. Agriculture and industry play a minor role (Madruga et al. 2016).

The region obtained its autonomy in 1982, after the establishment of a democratic constitutional monarchy in Spain. As one of the 17 CAs of Spain, the Canary Islands has its own government and parliament, and exclusive competences in several fields: land, coastal and water management; nautical tourism; smaller ports; protection of marine flora and fauna; hunting, fisheries (only in inland marine waters) and aquaculture; marine reserves and other environmental protection measures (Benzaken & Renard 2011; Menini et al. 2018). Both the national government and the CAs are responsible for biodiversity, and the marine environment, in particular (Interview file MN14.VI2). The seven local governments present in the Canary Islands are responsible for terrestrial ecosystems (Interview file MN14.VI2).

While MITECO constitutes the most important authority at the national level³⁷ for biodiversity policy, the *Consejería de Transición Ecológica, Lucha contra el Cambio Climático y Planificación Territorial* is the most important authority within the regional government. At the local level, the *Consejerías de Medioambiente* play a crucial role in environmental protection (Interview file MN14.VI2).

The national legal framework for biodiversity and climate change has been presented in the previous section. The Canary Islands can complement this national framework with regional regulations and plans (Interview file MN13.VII21). In addition, the regional government is now developing two regional laws, one for biodiversity and a second for

³⁷ Unlike other EU countries, Spain does not have a national biodiversity agency (Interview file MN14.VI2).

climate change; the two regional laws are likely to be adopted in 2022 (Interview file MN14.VI2).

Both CBD and the National Biodiversity Strategy (see above) are applicable to the Canary Islands. In addition, the Canary Islands can approve its own regional strategy; yet such strategy has not been formulated. However, the Canary Islands has implemented several actions for biodiversity protection and conservation. Below the regional level, conservation activities have been developed and also executed by the governments (or *Cabildos*) of every single island composing the CA. Some insular governments have also formulated their own insular biodiversity strategies in line with the CBD, EU biodiversity policy and the national strategy. Some municipalities, too, have taken action in biodiversity policy since they have competences in some aspects of nature conservation and biodiversity management (Benzaken & Renard 2011).

There are no climate change mitigation and adaptation plan specific to the Canary Islands; the only official document valid at the time of writing (Autumn 2021) is the national adaptation plan (Interview file MN14.VI2).

The Real Decreto 1365/2018³⁸ defines the Marine Strategies for Spain, constituting the transposition of the Spanish normative system of the MSFD. For Spain, five marine demarcations are established, including the marine demarcation of the Canary islands. For each of these demarcations, a strategy is designed and applied by the central government since it falls within the national competence. The regional government is preparing a marine spatial planning (Interview file MN14.VI21).

Several policy instruments can be put in place to protect biodiversity. Traditionally they have consisted of protected areas and species protection programmes (OECD 2015a). Additional instruments can go from economic measures (e.g., financial incentives) to voluntary actions of a more engaged civil society as well as other measures (e.g., restoration initiatives).

PROTECTION OF AREAS. An important policy instrument in biodiversity policy is protected areas. Law 42/2007 on Natural Heritage and Biodiversity gave new momentum to protected areas as a key instrument in biodiversity policy. The establishment of protected areas also responded to the requirements of the EU Nature Directives (OECD 2015a). According to the OECD (2015a), the Spanish territory under some form of protection covers almost 30% of the country; marine protected areas cover almost 10% of the territorial waters – more precisely, it was 8.4% based on the data of 2014 (OECD 2015a). This means that Spain has achieved (and exceeds) the Aichi targets for terrestrial protected areas and is close to reach the target for marine protected areas (OECD

³⁸ Source: https://www.boe.es/diario_boe/txt.php?id=BOE-A-2019-2557 (last access: 02.02.2022)

2015a). The CAs with the highest percentages of protected territory are, in decreasing order: Canary Islands (77%), La Rioja (51%), Madrid (41%) and Valencia (39%). Vast protected areas are also present in other regions (e.g., Andalusia, Castile and León and Castile-La Mancha) (OECD 2015a).

In particular, the Canary Islands have seen a clear increase from the 40% of its territory under some form of protection in the early 2010s (Benzaken & Renard 2011). However, the protection in the Canary Islands is quite different if considered on the land or in the sea. On the land, about one third of the region's surface is protected; in the sea, only a minor part is protected (Interview file MN13.VII21). The reason for this difference has to be found in the time needed to gain public acceptance on a new marine protected area (Interview file MN13.VII21). Most MPAs established in the Canary Islands have management plans, but actual enforcement of protection remains challenging. An adequate number of human resources (i.e. personnel) and technical assets (e.g., technology when people are insufficient) are needed to monitor the protection of marine areas that are dispersed across the seven islands of this CA (Interview file MN14.VI2).

To simplify a complex matter, protected areas are proposed by the regional authority to the central administration (i.e. MITECO) that decides whether to designate those proposed areas (Interview file MN13.VII21). Later, the management of the areas is a full competence of the regional government. Where capacity is present, also the government of the various islands (i.e., *Cabildos*) share some management responsibilities with the region (Madruga et al. 2016). Finally, enforcement (as staff and equipment) is conducted entirely by the central government (more precisely, MITECO and its Marine Protection Agency) and its personnel in the region (Interview file MN13.VII21).

PROTECTION OF SPECIES. Under Law 42/2007, Spain adopted several national conservation strategies that have led to the recovery of populations of some endangered species. However, further efforts are needed since many species are not covered by these strategies (OECD 2015a; OSE 2012). Species are protected under Spanish and Regional catalogues (of protected species). 'Inclusion on these catalogues implies the application of protection measures that range from preventing the capture to active management through conservation or recovery plans, which may include designating critical areas for biodiversity conservation' (Madruga et al. 2016: 109).

From our data collection, no alarming situation of endangered species has been reported for the Canary Islands (Interview file MN13.VII21). The major problem reported for this region is the inclusion of a species in the abovementioned catalogues. This can involve a lengthy process mainly because of the lack of strong evidence about the endangered status of a species. Indeed, there is a general lack of data and of coordination of data in the Canary Islands: multiple data sources and datasets exist, but they are not integrated (Interview file MN14.VI2).

The Canary Islands have also adopted several control measures against IAS (e.g. the Californian snake introduced by humans) (Interview file MN14.VI2). They have led to some positive results (Interview file MN13.VII21).

OTHER MEASURES. There are restoration actions in the Canary Islands, but the region lacks a formal programme that finances this type of action in a systematic way. They are ad-hoc interventions funded on a case-by-case basis. Results have often been disappointing or simply not monitored for sufficient time due to lack of funding (Interview file MN14.VI2; Interview file MN13.VII21).

4.3.1. Major constraints in implementation

According to a report of the OECD (2015a), environmental legislation in Spain still needs a broad review and reform to comply with EU and other international obligations. Nevertheless, for the specific case of biodiversity, no major flaw has been reported for the legal and regulatory framework applied to the Canary Islands. Major problems emerge during the implementation of the existing legal and regulatory framework (Interview file MN13.VII21).

First, environmental governance in Spain is highly decentralised, with the CAs having most responsibilities for the implementation of biodiversity policies. The State Commission on Natural Heritage and Biodiversity constitutes the main coordinating mechanism between national and regional authorities. But more efforts in coordination are needed (OECD 2015a). Important obstacles in implementation are rooted in the gap between the efforts of the central authorities to transpose EU directives and multilateral environmental agreements, and the execution by CAs that face staffing and financing limitations (OECD 2015a).

Notwithstanding this general feature about Spain, good cooperation among several layers of governance was reported for the specific case of the Canary Islands (Interview files MN14.VI2 and MN13.VII21). There are, indeed, permanent connections with the central administration that allow the national administration to monitor the implementation of biodiversity laws by the regional and local authorities (Interview file MN14.VI2). In addition, the region is characterised by a good institutional interaction among all actors involved in biodiversity at the regional level: government departments, research laboratories, universities, NGOs, municipalities and insular governments (Benzaken & Renard 2011).

Relations are somewhat less harmonious within the region (i.e. the government of the CA) and the subregional level (see *Cabildos*). This seems to be mainly due to a strong sense of

appropriation of the territory that goes along with the insular culture within an archipelago: 'this is my island; this is mine and nobody – especially from another island – is going to interfere' (Interview file MN13.VII21). Low coordination across the islands is, thus, explained rather by cultural features of the region than administrative constraints or technical difficulties (Interview file MN13.VII21).

Second, the Canary Islands experiences several conflicts of uses on the land and at sea, namely between coastal (and urban) development, tourism, fishing and aquaculture (Interview file MN13.VII21).

For coastal areas, the major conflict of use is due to development projects (e.g., building and infrastructures like ports). In marine areas, the main threat is overfishing. There are several organisations representing professional fishers (e.g., *Cofradía de Pescadores*) that are involved in decision-making by the regional authorities. However, non-professional fishers (see sport fishing) are the ones responsible for more than 40% of the catches in the Canary Islands. Existing laws and regulations only target professional fishers, which creates a problematic regulatory void. The result is that an increasing number of fishers are moving from professional to sportive fishing to escape regulations (Interview file MN14.VI2).

The presence of multiple, strong, and competing socio-economic interests makes the social acceptance of protected areas (particularly at sea where they are more needed) a very slow process. MPAs have not expanded considerably in the Canary Islands in the last decades mainly because the process of acceptance is lengthy and complex (Interview file MN13.VII21).

Third, Capacity in the Canary Islands is limited by its dimension and insularity – a characteristic that is common to all ORs of the EU (Interview file MN14.VI2).

In general, subnational public agencies are understaffed (Interview file MN13.VII21). In this context, a crucial aspect is the lack of people who can be deployed in enforcement, for instance, to monitor and control fishing activities. Moreover, the availability of financial and human resources can hinder the management of a high number of protected areas. Recent budget cuts have further jeopardised the ability of public authorities to maintain protected areas: monitoring has costs (OECD 2015b; Real Decreto 1274/2011).

The lack of funding constitutes a problem that was highlighted during field research, particularly for the Canary Islands, where economic development scores lower than in the richer parts of mainland Spain (Interview file MN13.VII21). There is special support from the national government to the Canary Islands, but it is not always working effectively (Interview file MN14.VI2).

Fourth, there is no comprehensive knowledge of the status of habitats across the seven Canary Islands of the archipelago (Interview file MN14.VI2). This is not due to the lack of data per se but to the human resources available to process them. Personnel in the regional administration is very small compared to the amount of available data that is collected and elaborated – mainly by the two major universities of the CA. Furthermore, connections between the regional government and the universities are not organised in a systematic way (Interview file MN14.VI2).

This leads us to a final broader consideration. In Spain, science advice is provided to policy-makers by the Spanish National Research Council (*Consejo Superior de Investigaciones Científicas - CSIC*) and, in the field of ocean research, the Spanish Institute of Oceanography³⁹ (*Instituto Español de Oceanografía*) (OECD 2015a). Despite such system, the status of many species and habitats is for a large percentage (25 to 50 percent) still unknown because of the lack of comprehensive national inventories. In this context, one of the most important achievements of Spain's biodiversity policy of the last decade was the creation of a Natural Heritage and Biodiversity Spanish Inventory (NHBSI) under Law 42/2007 (see below). The NHBSI tries to solve the problem of “dispersed, inconsistent and incomplete datasets” in a country characterised by a high level of decentralisation through the harmonisation of diverse national and regional data sets (OECD 2015a).

Top sum up, the Canary Islands is in need of more tangible resources, such as financial support and personnel for its public agencies. An additional intangible asset that should also be increased is coherence in the political agenda between economic development and environmental protection. A better link across these policy priorities is still needed (Interview file MN14.VI2).

4.4. Final remarks

Like in many other countries, biodiversity policy developments in Spain have not been able to halt biodiversity degradation, and many problems persist in the national territory and waters. Some possible lines of action are presented in this section.

First, in the specific case of the Canary Islands, the need for an increase of the budget allocated to biodiversity protection (OECD 2015b) is confirmed. This might have a positive impact on execution and enforcement activities.

³⁹ The Spanish Institute of Oceanography has been recently integrated (in 2020) in the Spanish National Research Council (Interview File Interview file MV08.I21).

Second, in a context characterised by a high level of autonomy of the sub-national entities, i.e. the CAs, policy interventions to protect biodiversity need to be managed across administrative boundaries (OECD 2015b). Spain has made several efforts to improve coordination among its CAs and their environmental policies, but some more efforts could be made and include the creation of a national environmental agency that the country is still missing⁴⁰. Although coordination with the central administration does not seem to represent a major issue in the Canary Islands, further improvements of more harmonious relations with the sub-regional entities could ease further the protection of biodiversity.

Third, episodes of collaboration between the state and actors from the civil society are frequent in Spain. Spain ratified the Aarhus Convention in 2004, and some improvements in public information and participation have taken place in the environmental policy domain. However, information provision can still be improved. The same applies to public participation (OECD 2015a). For instance, the country could improve the development of national strategies also by relying more on public engagement. In the Canary Islands, a forum for the gathering and engagement of all potential stakeholders is strongly recommended (Interview file MN13.VII21). At the moment, there is not a venue for broad societal representation. Often, the interest that prevails in the Region's efforts of public engagement is fisheries. This is due to the economic relevance of the fishing sector, particularly now that the COVID pandemic and the recent eruption of La Palma have impacted tourism as a major source of revenue for the island (Interview file MN13.VII21).

Fourth, Spain can promote better linkages between public administrators and researchers to improve the design and evaluation of policy interventions and regulatory initiatives (OECD 2015a). In the Canary Islands, more structural science-policy interactions are needed as well as more integration among existing data sources.

⁴⁰ In many EU countries, environment agencies have been established to support policy implementation. Spain's institutional framework for environmental management could be improved by the creation of a national environmental agency that could provide technical support to the work of the competent Ministry in the development of environmental policies and legislation, strengthen the technical co-ordination of the activities of the 17 environmental offices of the Autonomous Communities, and enhance environmental policy implementation at the subnational level (OECD 2015a).

Table 4.1: Summary table for the Canary Islands (Spain)

		REFERENCE	Spain	Canary Islands
A. LEGISLATION	<i>Biodiversity conservation</i>	CBD	- 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
	<i>Climate change</i>	UNFCCC	- <i>Ley 7/2021 de cambio climático y transición energética</i>	A regional law for biodiversity is foreseen for 2022
B. STRATEGIES	<i>Biodiversity conservation</i>	CBD, ABTs	- Strategic Plan on Natural Heritage and Biodiversity (2011)	
	<i>Marine environment</i>	MSFD	- <i>Marine Strategies for Spain (2018)</i>	Estrategia marina de la demarcación marina canaria (2018)
	<i>Climate change</i>	UNFCCC, PA	- National adaptation strategy (Plan Nacional de Adaptación al Cambio Climático) (2020)	
C. MEASURES	<i>Biodiversity protection</i>	CBD, ABTs HD, BD MSFD	- 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
	<i>Biodiversity restoration</i>	CBD, ABTs		- Restoration interventions are sporadic mainly because of scarce resources

5. IMPLEMENTATION OF EU AND INTERNATIONAL POLICIES FOR BIODIVERSITY IN MACARONESIA: THE CASE OF AZORES (PORTUGAL)

Biodiversity loss in Portugal is mainly caused by the fragmentation and deterioration of habitats due to human activities such as agriculture intensification and management of natural and semi natural ecosystems. Species and habitats are also threatened by the growing pressure of tourism. Natural events like forest fires and erosion of coastal areas add to the human pressures on the environment (OECD 2011).

5.1. Biodiversity policy in Portugal

Environmental policy developments in Portugal have been steered by the need to comply with the EU environmental law. The National Environmental Framework Law (Law No.11/87⁴¹) constitutes the core national legal act for the environment (OECD 2011), and framed all the national legislation produced in the area of nature's conservation and biodiversity. The Law has undergone several revisions (in 1996, 2002 and 2014), being the current version defined in the Law No. 19/2014⁴². Over recent years, Portugal has produced a number of strategic plans and documentation, which aim to improve the protection of biodiversity and nature. These include the National Strategy for Nature Conservation and Biodiversity to 2030, the National Strategy for the Sea, the Strategic Framework for Climate Policy, the National Programme for Climate Change and, a national Adaptation to the Climate Change Strategy.

The Council of Ministers Resolution No. 152/2001, defining the main objectives for biodiversity up to 2010, adopted the National Strategy for Conservation of Nature and Biodiversity. The Strategy was updated in 2011, following the tenth Conference of the Parties to the Convention on Biological Diversity (OECD 2011; Madruga et al. 2016) and then again in 2018, when the "National Strategy for the Conservation of Nature and Biodiversity to 2030"⁴³ was issued (Council of Ministers Resolution No. 55/2018⁴⁴).

⁴¹ Source: <https://dre.pt/dre/detalhe/lei/11-1987-666148> (last access: 23/02/2022)

⁴² Source: <https://dre.pt/dre/detalhe/lei/19-2014-25344037> (last access: 23/02/2022)

⁴³ Source: <https://www.cbd.int/nbsap/about/latest/#pt> (last access: 30.03.2021).

⁴⁴ Source: <https://dre.pt/dre/detalhe/resolucao-conselho-ministros/55-2018-115226936> (last access: 23.02.2022)

In 2008, Portugal established the Legal Framework for the Conservation of Nature and Biodiversity⁴⁵ (Decree-Law No. 142/2008) that defines the National system of classified areas, comprising the National Protected Areas Network, the listed areas that integrate the Natura 2000 network and other areas listed under international commitments.

The country has also adopted a national strategy for forests in 2006, updated in 2016 by the Council of Ministers Resolution No 6-B/2015⁴⁶

In 2014, Portugal adopted Law No. 17/2014 on marine spatial planning (MSP) and management. This Law constitutes the main law for MSP for the entire Portuguese maritime space. This fundamental law was further developed by its implementing measure, i.e. Decree-Law No. 38/2015⁴⁷. Finally, the country has issued its National Strategy for the Sea 2021-2030⁴⁸ (Council of Ministers Resolution No. 68/2021) in compliance with the Marine Strategy Framework Directive (OECD 2011).

Regarding climate change, at the end of 2021, Portugal adopted the Climate Framework Law (law no. 98/2021⁴⁹) that establishes the guiding principles of climate policy and governance, introducing targets and providing instruments aimed at combating climate change, decarbonising the economy and sustainable development at the national level. A Strategic Framework for Climate Policy⁵⁰, was adopted in 2015 (Council of Ministers Resolution No. 56/2015); it defines the vision and objectives of the Portuguese national climate policy, reinforcing the commitment to develop a competitive, resilient and low-carbon economy. Mitigation goals and actions are described in the National Programme for Climate Change 2020-2030⁵¹ (Council of Ministers Resolution No. 53/2020). Portugal has also adopted a National Adaptation to Climate change Strategy 2020⁵² (NAS, Council of Ministers Resolution No. 130/2019) – the previous NAS was adopted in 2010.

5.2. Implementing biodiversity policy in Portugal

⁴⁵Source:<https://dre.pt/dre/legislacao-consolidada/decreto-lei/2008-34502775> (last access:23/02/2022)

⁴⁶ Source: https://dre.pt/dre/detalhe/resolucao-conselho-ministros/6-b-2015-66432466?_ts=1645488000044 (last access: 23.02.2022)

⁴⁷ Source: <https://www.msp-platform.eu/countries/portugal> (last access: 30.06.2021).

⁴⁸ Source: <https://www.portugal.gov.pt/download-ficheiros/ficheiro.aspx?v=%3d%3dBQAAAB%2bLCAAAAAAABAAzNLQwsQQAODaj3AUAAAA%3d> (last access: 02.03.2022)

⁴⁹ Source: <https://files.dre.pt/1s/2021/12/25300/0000500032.pdf> (last access: 23.02./2022)

⁵⁰ Source: <https://files.dre.pt/1s/2015/07/14700/0511405168.pdf> (last access: 02/03/2022).

⁵¹ Source: <https://files.dre.pt/1s/2020/07/13300/0000200158.pdf> (last access: 02.03.2022).

⁵² Source: <https://files.dre.pt/1s/2019/08/14700/0001000045.pdf> (last access: 02.03.2022).

The Ministry for Environment and Climate Action (MAAC) is the main national actor competent for environmental policy in Portugal (Decree-Law No. 169-B/2019). The MAAC is supported by several subordinate agencies, such as the Portuguese National Agency of Environment (APA) and the Institute for Nature Conservation and Forests (ICNF), to name the most relevant ones for biodiversity. APA constitutes the main public body in charge of the implementation (and monitoring) of environmental policies (including climate change, air pollution, air quality, noise reduction and waste management). ICNF acts in the specific field of nature protection and biodiversity conservation. The enforcement of nature protection regulations is the responsibility of the Service for Nature and Environmental Protection (SEPNA) of the National Republican Guard. SEPNA also enforces national legislation against violations of the EU Nature Directives (OECD 2011).

As other important ministry, the Ministry of the Sea aims the transversal coordination of maritime affairs, through the definition and monitoring of the National Strategy for the Sea, the promotion of scientific knowledge, innovation and technological development in the area of the sea, the definition and coordination of the implementation of policies for the protection, planning, management and exploitation of sea resources, the promotion of an effective presence at sea, its uses and a sustainable economy of the sea, fisheries, recreational boating, fishing ports and the management of national and European funds relating to the sea.

The two archipelagos of Azores⁵³ and Madeira are Portuguese autonomous regions. They have their own regional governments and legislative Assembly. 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) and climate change.

5.3. The case of the Azores

As an autonomous region (since 1976), the Azores has its own environmental laws and regulations. The region has adapted to its context and jurisdiction all the main national laws and strategies adopted by Portugal, following the country's international and EU commitments for biodiversity, climate change and the marine environment. National laws are applied in the region only in the absence of regional laws ruling a specific matter (Interview file MV04.X20). The Region has developed its own legal frameworks for Nature

⁵³ The Azores archipelago is formed by nine islands: Santa Maria, São Miguel (that make up the Eastern Group), Terceira, Graciosa, São Jorge, Pico, Faial (Central Group), Flores and Corvo (Western Group), also including some uninhabited islets (Madruga et al. 2016).

Conservation and Biodiversity⁵⁴ (Decree Law No. 15/2012/A), for Climate Change⁵⁵ ⁵⁶ (Decree Law No. 30/2019 and Resolution of the Government Council No. 123/2011) and for Marine environment⁵⁷ (Marine Strategy for the subdivision of the Azores, SRMCT, 2014). It is also worth mentioning the Regional Plan for Land Management (2010).

Portugal ratified the CBD in 1993. The National Strategy adopted in compliance with the CBD in 2001 and later revised in 2011 and 2018 constitutes the main strategic instrument for the conservation of nature and the promotion of the sustainable use of natural resources. The Strategy of 2011 had a national scope but did not cover the two autonomous regions of Madeira and the Azores specifically. The national strategy for biodiversity adopted by the Portuguese government in 2018 (in compliance with the CBD), instead, also covers the autonomous regions of Azores and Madeira.

There is not a regional biodiversity strategy in the Azores yet (Interview file 004.01.10.2020), although many project and initiatives have been implemented in the region to support this. 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).

In the domain of climate change, the Azores has adopted two strategic regional documents: the Regional Strategy for Climate Change⁵⁸ (Resolution of the Government Council No.123/2011), the Regional Program for Climate Change⁵⁹ (Regional Regulatory Decree No. 30/2019/A).

In Portugal, nature conservation remains limited to reliance on protected areas and protection of endangered species. Both ORs of Portugal have more than 50 percent of their territories classified as protected areas. Biodiversity conservation is being implemented in all main ecosystems (Benzaken & Renard 2011).

⁵⁴ Source: <https://files.dre.pt/1s/2012/04/06600/0162501713.pdf> (last access: 02.03.2022).

⁵⁵ Source: <http://servicos-sraa.azores.gov.pt/grastore/SRAM/Resolu%C3%A7ao%20-%20estrat%C3%A9gia%20para%20as%20altera%C3%A7%C3%B5es%20clim%C3%A1ticas.pdf> (last access: 02/03/2022)

⁵⁶ Source: <https://files.dre.pt/1s/2019/11/22900/0000500158.pdf> (last access: 02.03.2022).

⁵⁷ Source: http://servicos-sraa.azores.gov.pt/grastore/DRAM/DQEM/DQEM_Final_Acores.pdf (last access: 03.02.2022).

⁵⁸ Source: <https://jo.azores.gov.pt/api/public/jornal/pdfOriginal?numeroJornal=146&ano=2011&serieId=ec6ff6d5-7709-4517-8d3c-b9b92c443c8a&suplemento=0> (last access: 02.03.2022).

⁵⁹ Source: <https://files.dre.pt/1s/2019/11/22900/0000500158.pdf> (last access: 26.07.2021).

PROTECTION OF AREAS. Portugal has designated 22% of its territory as part of the Natura 2000 network. There are still few marine protected areas offshore. A large part of coastal waters is now included in the Natura 2000 network. This Network is further extending with new MPAs in the process of being designated. All national protected areas have a management plan (OECD 2011).

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 Conservation of Nature (IUCN).

While terrestrial protected areas fall within the competence of the Regional Secretary of Environment and Climate Change, MPAs are in the portfolio of the Regional Secretary of Sea and Fisheries.

In compliance with the Marine Strategy Framework Directive, the National Strategy for the Sea 2021-2030 is applicable to marine waters under national sovereignty or jurisdiction, which comprises the marine region of the Northeast Atlantic and the sub-regions of the Iberian Coast and Macaronesia, where the Azores Archipelago is located. The elaboration and coordination of the application of the National Strategy for the Sea in the Azores, is responsibility of the regional public administration with competence in the area of environment and maritime affairs (Decree-Law No. 201/2012). The Marine Strategy for the subdivision of the Azores is available since 2014 (SRMCT, 2014), and the report of the reassessment of the environmental status of the marine waters of the Azores, is currently under public consultation⁶⁰

In terms of terrestrial protected areas, the Regional Network of Protected Areas⁶¹ (RRAP) is constituted by nine Island Natural Parks⁶² (one for each island) and have now dedicated Spatial (Management) Plans; some of them currently under public consultation preceding their approval⁶³. In addition to terrestrial areas, each Island Natural Park includes marine and coastal areas.

⁶⁰ Source: http://www.azores.gov.pt/Gra/SRMCT-MAR/conteudos/livres/Estrategia_Marinha_para_a_subdivisao_dos_Acores.htm (last access: 02.03.2022).

⁶¹ Source: <https://www.azores.gov.pt/NR/rdonlyres/A8FFB2E0-1314-42DE-AEE2-D1C7F12AD13A/530099/RedeRegionalAP1.pdf> (last access: 26.07.2021).

⁶² Source: <https://parquesnaturais.azores.gov.pt/pt/> (last access: 26.07.2021).

⁶³ Source: <http://ot.azores.gov.pt/ot/1221/planos-gestao-das-at-dos-pni-smg-pic-fai> (last access: 26.07.2021).

Other MPAs, located beyond the outer limit of the territorial sea, are included in the Azores Marine Park, created in 2011. The process of reviewing and expanding the MPAs network in the Azores and the respective management plans is currently being implemented through several initiatives directly supported by the Regional Government, as for example the Blue Azores Program⁶⁴, an operational program that aims to protect 30% of the Azores sea through the increase of Marine Protected Areas in the region.

The management of Protected Areas improved after the reclassification of all PAs in the Azores according to IUCN parameters and the creation of the 9 Island Natural Parks.

PROTECTION OF SPECIES. Portugal has reached several results in terms of species and habitat recovery. Most protected species gained this status as a result of the national implementation of the EU Nature Directives. Portugal has also strengthened its legislative and regulatory framework to combat the illegal trade of endangered species (for both wild fauna and flora) (OECD 2011).

The Azores is now developing its Regional Strategy for the Control and Prevention of Invasive Alien Species⁶⁵. IASs are spreading in all islands and in protected areas, which threatens endemic habitats.

OTHER MEASURES. Through several LIFE projects, the Region has conducted restoration initiatives since the mid-90s⁶⁶. Also, other EU funding programmes (for instance, under the Common Agricultural Policy) have supported the implementation of agri-environmental schemes for the protection of biodiversity in the Azores as well as forest restoration measures with native/endemic species.

5.3.1. Major constraints in implementation

Environmental policy in Portugal has been largely driven by the need to transpose EU Directives. Under this EU pressure, policy change has been radical and has happened at a very high pace. The country has been catching up with a fast enactment of quite many EU laws (OECD 2011). In the specific case of the Azores, few shortcomings have been identified during the implementation of Portugal's international and EU commitments.

⁶⁴ Blue Azores Program website: <https://www.waittinstitute.org/blue-azores>

⁶⁵ Source: <https://www.azores.gov.pt/Gra/srrm-natureza/conteudos/noticias/2019/Maio/Estrat%C3%A9gia+Regional+para+o+Controlo+e+Preven%C3%A7%C3%A3o+de+Esp%C3%A9cies+Ex%C3%B3ticas+e+Invasoras+desenvolvida+no+%C3%A2+mb.htm?lang=pt&area=ct> (last access: 26.07.2021).

⁶⁶ Source: LIFE Project Public Database: <https://webgate.ec.europa.eu/life/publicWebsite/index.cfm>

First, the economy of the archipelago 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). A major problem in Portugal is the uncontrolled building of illegal structures; many of them are located in protected areas, mostly in coastal areas. Such illegal construction has been regulated in recent years, and demolition orders have taken place.

Second, Portugal's resources and skills for enforcement activities are still limited (OECD 2011). Financial resources for biodiversity are mainly provided by the regional authorities (Benzaken & Renard 2011). In particular, the Azores face major challenges due to the unavailability of adequate resources during monitoring and enforcement, for instance in protected areas.

5.4. Final remarks

Environmental policy developments in Portugal have been steered by the need to comply with the EU environmental law. In addition to the national and regional policy framework put in place and the interventions conducted for the conservation of biodiversity, more active restoration of the degraded areas is strongly needed.

Table 5.1: Summary table for the Azores (Portugal)

		REFERENCE	Portugal	Azores
A. LEGISLATION	<i>Biodiversity conservation</i>	CBD	<ul style="list-style-type: none"> - Environmental Framework Law (Law No. 19/2014) - Nature Conservation and Biodiversity Law (Decree-Law No. 142/2008) - Marine spatial planning and management Law (Law No. 17/2014) 	- Regional Legal Framework of Nature Conservation and Biodiversity (Decree Law No. 15/2012/A)
	<i>Climate change</i>	UNFCCC	- Climate Framework Law (Law no. 98/2021)	
B. STRATEGIES	<i>Biodiversity conservation</i>	CBD, ABTs	- National Strategy for the Conservation of Nature and Biodiversity to 2030 (Council of Ministers Resolution No. 55/2018).	
	<i>Marine environment</i>	MSFD	- National Strategy for the Sea 2021-2030 (Council of Ministers Resolution No. 68/2021)	Marine Strategy for the subdivision of the Azores (SRMCT, 2014)
	<i>Climate change</i>	UNFCCC, PA	<ul style="list-style-type: none"> - Strategic Framework for Climate Policy (Council of Ministers Resolution No. 56/2015) - National Programme for Climate Change 2020-2030 (Council of Ministers Resolution No. 56/2015) - National Adaptation to the Climate Change Strategy 2020 (Council of Ministers Resolution No. 130/2019) 	<ul style="list-style-type: none"> - Regional Strategy for Climate Change (Resolution of the Government Council No.123/2011) - Regional Program for Climate Change (Regional Regulatory Decree No. 30/2019/A)
C. MEASURES	<i>Biodiversity protection</i>	CBD, ABTs HD, BD MSFD		<ul style="list-style-type: none"> - 9 Island Natural Park - Azores Marine Park (2011) - Progress in the protection of species and control of IASs - Progress in the increase of MPAs
	<i>Biodiversity restoration</i>	CBD, ABTs		Several restoration initiatives

6. IMPLEMENTATION OF INTERNATIONAL POLICIES FOR BIODIVERSITY IN UK'S OVERSEAS TERRITORIES: THE CASE OF SAINT HELENA

St Helena is a small and isolated island in the middle of the South Atlantic, between Africa and South America. It has an area of 122 sq. km for a population of 4,500 inhabitants (FCO 2012). Its marine environment supports both endemic and migratory species (e.g., humpback whales, whale sharks and turtles), as well as resident populations of dolphins. The marine environment also supports recreational and commercial activities (SHG 2016).

St Helena is one of the 14 Overseas Territories (OTs) of the UK⁶⁷. The majority of the OTs are remote islands located in the Caribbean Sea, Indian Ocean, Pacific and South Atlantic, with small (or no permanent) population and surrounded by vast areas of ocean (FCO 2012). Because of their geographical location and isolation, the OTs are very rich in biodiversity (Benzaken & Renard 2011). They host many endemic species and unique ecosystems (FCO 2012). Furthermore, the OTs' biodiversity supports many of the ecosystem services (ESSs) that are pivotal for the local economies and populations (e.g., fisheries, water provision and tourism) as well as for climate change mitigation and adaptation (DEFRA 2009).

The OTs have been an integral part of Britain's history. Each OT is different, with its own history, identity and relationship with the UK (FCO 2012). They have very different institutional arrangements; each OT has its own Constitution, Government and laws (Interview file MN01.XI20). Powers are devolved from the UK to the elected governments of the OTs; the UK retains only those powers that are necessary to exert its sovereign responsibilities. In this context, the governments of the OTs are responsible for the protection and conservation of their natural environment (FCO 2012).

Although each OT is unique in its institutional arrangements and constitutional relations with the UK (Interview file MN01.XI20), many OTs share similar challenges of small scale and isolation that impact on their policy development and implementation for biodiversity conservation (FCO 2012). Due to their insular nature, small dimension and geographical remoteness, they are also extremely vulnerable to climate change (Benzaken & Renard 2011).

The OTs have made significant progress in the designation of protected areas, the conservation of species and habitats, and the control of invasive species. The role of

⁶⁷ Source: <https://www.gov.uk/world/organisations/dfid-overseas-territories> (last access: 17.11.2020).

NGOs in such achievements (in collaboration with conservation departments) is undeniable (Benzaken & Renard 2011).

However, improvements are still needed. For example, over 340 endemic species have been recorded in the OTs, compared to about 60 in the metropolitan UK (DEFRA 2009). According to the last IUCN Red List of Threatened Species (IUCN 2020), many of them are vulnerable (Vu), endangered (En) or critically endangered (Cr) (table 6.1). The main pressures on biodiversity in the OTs come from invasive alien species (IAS), climate change and habitat loss (mainly due to infrastructural developments for tourism) (DEFRA 2009).

Table 6.1: Status of endemic species in the UK and the OTs⁶⁸

	Vu	En	Cr	Total
Metropolitan UK	16	17	23	56
Anguilla	-	1	2	3
Bermuda	-	6	29	35
British Antarctic Territory (BAT)	-	-	-	-
British Indian Ocean Territory (BIOT)	-	-	-	-
British Virgin Islands	1	4	4	9
Cayman Islands	1	16	18	37
Falklands Islands	-	5	-	5
Gibraltar	1	-	-	1
Montserrat	1	-	5	6
Pitcairn Islands	16	4	2	22
Saint Helena, Ascension and Tristan da Cunha Island	39	49	71	159
Turks and Caicos Islands	2	6	2	10

Source: IUCN 2020

This chapter investigates the case of biodiversity conservation in Saint Helena after providing insights on biodiversity policy in the UK and the OTs. Generalisation from the single case study of St Helena to other OTs is difficult (Interview file MN02.XII20), yet our empirical data will be put in the perspective of existing academic and grey literature on the OTs. Furthermore, the geographical remoteness and the small scale are also common to the OCTs of the EU and affect the way they govern and manage their biodiversity (Interview file MN07.III21).

6.1. Biodiversity policy in the Overseas Territories of the United Kingdom

⁶⁸ The table by the IUCN does not list South Georgia and South Sandwich Islands (see table 1.2 in this report).

The UK issued its national strategy for biodiversity in compliance with the requirements of the CBD in 1994 (OECD 2002) and updated this strategic document in 2007 and 2012 (JNCC & Defra 2012). The UK Post-2010 Biodiversity Framework of 2012 responded to both the Aichi Targets adopted internationally in 2010 and the EU Biodiversity Strategy of 2011 (DEFRA 2009). Since biodiversity policy is a devolved matter in the UK⁶⁹, each of the four countries (i.e. England, Northern Ireland, Scotland, Wales) have aimed at complying with the CBD (and the EU targets before BREXIT) (NRP 2015) through their own biodiversity strategy at country-level (JNCC & DEFRA 2012; DEFRA 2011; DOENI 2015; NRP 2015; Scottish Government 2013).

The competence for environmental matters, including biodiversity conservation, has also been devolved to the governments of the 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). All the OTs have adopted and reformed policies and legal instruments for biodiversity conservation. The UK has financially supported some of the reform of OTs' institutional arrangements (through the Department for Environment, Food and Rural Affairs, DEFRA) and several biodiversity projects in the OTs (e.g., under the Darwin Initiative) (Benzaken & Renard 2011).

Although competences for biodiversity conservation and environmental management have been devolved to the governments of the OTs, the UK government retains responsibilities for external relations and international treaties (JNCC & DEFRA 2012). The UK signed the CBD in 1992 and has since then adopted several national biodiversity strategies in compliance with the Convention (see above). Biodiversity in the OTs was given little attention in these documents until the UK government and the governments of each OT signed the Environment Charters in 2001. These documents define a greater commitment (also financially) of the UK to biodiversity conservation in the OTs (Benzaken & Renard 2011).

Indeed, with the Environmental Charters, the UK government has committed to help building capacity in environmental management, assist in the revision of environmental legislation, support the implementation of multilateral environmental agreements, facilitate the use of expertise to advise decision-making, and promote cooperation among the OTs for the sharing of experience and knowledge (DEFRA 2009). This commitment of the UK was confirmed by the "United Kingdom Overseas Territories

⁶⁹ Since the late 1990s, the national institutional framework for environmental management in the UK has experienced radical reforms through the transfer of powers and competences in environmental policy from the central government to sub-national governments in Scotland, Wales and Northern Ireland. As a result, the sub-national administrations have assumed a large amount of responsibility in the environmental field in terms of policy formulation; they also have almost all responsibilities for regulatory implementation and enforcement (OECD 2002). As a result of this process of devolution, each country of the UK can put in place its own legislation; in some cases, though, they can decide to rely on UK laws (Interview file MN01.XI20).

Biodiversity Strategy" that the UK government adopted in 2009 (Benzaken & Renard 2011; JNCC & DEFRA 2012). The UK Post-2010 Biodiversity Framework of 2012 aims at safeguarding biodiversity both in the UK and the OTs⁷⁰.

6.2. Developing and implementing biodiversity policy in Saint Helena

St Helena, Ascension and Tristan da Cunha are three islands that form a single territorial grouping (and OT) under the Crown. A Governor of St Helena, Ascension Island and Tristan da Cunha is appointed by the Queen of England on the advice of the British government and resides in St Helena. However, from an administrative perspective, the three islands are divided into three separate entities; hence, the UK Government appoints an Administrator on both Ascension Island and Tristan da Cunha to represent the Governor. The Governor and the Administrators preside over a Council that is locally elected on each island. Saint Helena has its own elected Legislative Council; this Council elects five members to sit on the Executive Council that advises the Governor in most policy areas (Taylor et al. 2016).

A Chief Environmental Officer (CEO) is appointed by the Governor. The CEO is responsible for the administration of environmental protection and oversees the implementation of the Environmental Protection Ordinance (EPO) adopted in 2016 (see below). The CEO also acts as the main advisor to the Governor on environmental matters (EPO 2016).

A key actor in St Helena's biodiversity policy is the Portfolio of Environment, Natural Resources and Planning (ENRP Portfolio). It was renamed in 2019 from the former Environment and Natural Resources Directorate's (ENRD). Several environmental sections were brought under the same umbrella in 2012 (Interview file MN02.XII20). Today, the ENRP Portfolio has competence for a broad area that includes environmental protection and environmental risk management, biodiversity and nature conservation, land planning and building control, agriculture, fisheries and forestry. The ENRP Portfolio regulates these matters, advise the Government on policy developments in those areas, and intervenes in case of breaches of the legislation through its monitoring and enforcement activities. It also aims at engaging the public in the areas of its competence (ENRP Directorate 2019).

St Helena has self-determination and is administered by its own legal acts (Taylor et al. 2016). The country has never been subject to the *acquis communautaire* of the EU (Interview file MN03.I.21). A new Constitution was introduced in the country in 2009 (FCO 2012). Defence and Foreign Affairs continue to be the responsibility of the UK (Taylor et al.

⁷⁰ Since 2016, the UK's OTs have also enhanced marine environmental protection with support from the Blue Belt Programme (<https://www.gov.uk/guidance/the-blue-belt-programme>; last access: 20.07.2021).

2016). As for other OTs, powers have been devolved since the 1990s at the same time as environmental awareness was raised in the island. This seems to have eased St Helena's own action on environmental issues (Interview file MN02.XII20). However, the island is almost fully dependent on the UK government for funding which might limit its autonomy over national policy decisions (Interview file MN02.XII20). Nevertheless, the national political agenda of St Helena is left to the island with no interference from the UK government (Interview file MN28.VII21).

An Environmental Protection Ordinance (EPO) was adopted in 2016 and is the major legal instrument for the protection of the environment in St Helena⁷¹ (table 6.2). Before its adoption, several pieces of legislation already referred to environmental matters, but EPO is the first consolidated text on the environment. Indeed, the consolidation of previous texts in one act was the main objective behind the adoption of the law (Interview file MN28.VII21). The EPO is, thus, comprehensive: it regulates the protection of biodiversity, the management of waste and the control of pollution (article 4, EPO 2016) (SHG 2016; as confirmed during interviews: Interview files MN02.XII20 and MN28.VII21). Its 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).

The EPO was the result of a strong community involvement, which has eased its implementation (Interview file MN02.XII20). The main obstacle in the implementation of the EPO 2016 is the lack of regulations (as implementing measures of the Ordinance) for some parts of the Ordinance. Implementing regulations have not been issued due to a lack of (human) resources (e.g., for the drafting) (Interview file MN28.VII21).

In the domain of biodiversity, the UK signed the Convention on Biological Diversity in 1992. Only a few OTs – including Saint Helena, Tristan da Cunha and Ascension Island – have requested to be included in the ratification of the CBD (Benzaken & Renard 2011; DEFRA 2009; Taylor et al. 2016). The CBD was thus extended to St Helena in 1994 (EPO 2016; SHG 2016). However, a national biodiversity strategy is still missing on the island due to a lack of resources. St Helena has never issued a national biodiversity strategy as requested by the CBD because it was never prioritised in the light of the (limited) resources (e.g., personnel and expertise) available on the island (Interview file MN03.I.21; Interview file MN28.VII21). Yet, the island developed a National Environmental Plan in 2012 (Interview files MN02.XII20 and MN03.I.21).

St Helena has also adopted its Climate Change Policy (ENRP Directorate 2019). However, this is a strategic document; the island does not have a climate change legal act

⁷¹ The Sustainable Economic Development Plan of 2018 confirms the country's commitment to the effective management of its environment (SHG 2018).

(Interview files MN03.I.21 and MN28.VII21). The Climate Change Policy is a programmatic document stating the government's intention towards climate change. St 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). It also aims at identifying and prioritising current and future risks from weather related hazards (on the adaptation side) (SHG 2019). In addition to this document, there are neither legislative proposals on Climate Change, nor adaptation strategy (Interview files MN02.XII20, MN28.VII21 and MN03.I.21). A possible reason for the absence of these measures can be found in the lack of adequate resources and skills despite the political and public support to address the problem (Interview file MN28.VII21). Nevertheless, climate change has been taken into account several sectoral policies (e.g., water management) (Interview file MN02.XII20).

Table 6.2: Summary table for Saint Helena

		REFERENCE	Saint Helena
A. LEGISLATION	<i>Biodiversity conservation</i>	CBD	Environmental Protection Ordinance (2016)
	<i>Climate change</i>		Climate Change Policy (2019)
B. STRATEGY	<i>Biodiversity conservation</i>	CBD, ABTs	Missing but a National Environmental Management Plan (2012)
	<i>Marine environment</i>		Marine Management Plan (2016)
C. MEASURES	<i>Biodiversity conservation</i>	CBD, ABTs	<ul style="list-style-type: none"> - Designation of 23 National Conservation Areas (44% of the island) but no management plans - One extensive MPA with a Marine Management Plan (2016) - Protection of species - Some restoration actions

PROTECTION OF AREAS. According to the EPO (articles 30 and 31), National Conservation Areas (including MPAs) are designated by the Governor of St 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). St Helena has a total of 23 National Conservation Areas: three National Parks, six Nature Reserves, five Important Wirebird Areas and nine Historic Conservation Areas (Taylor et al. 2016). The protected area designated is 44% of the territory. These terrestrial protected areas fall under the Land and Development Ordinance (2013), but management plans have never been adopted (with the exception of one area). The production of the remaining management plans remains a political priority, but the main obstacle remains the lack of resources (Interview file MN28.VII21). Without plans, these areas are without legal protection against the threat of urban development. St Helena is a small island, and its limited land is under

development pressure. In the absence of management plans, some development projects have gone ahead (Interview file MN28.VII21).

Based on the EPO 2016, the government of St Helena has also designated a Marine Protected Area (MPA). St Helena's MPA encompasses the entire 200nm maritime zone, which corresponds to 444,916 km² (Interview file MN28.VII21). For the designation of the MPA, the St Helena Government conducted an intensive consultation and engagement process with fishers and marine tour operators (CEFAS & MMO 2019) that seems to have partially solved opposition from fisheries (Interview file MN01.XI20).

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 (SHG 2016). The MMP 2016 addresses the major pressures for St Helena's marine environment: pollution (including sewage), commercial and recreational fishing, alien species, marine tourism, construction and mineral extraction (SHG 2016). This Plan constitutes the main strategic document for the marine environment of the island, thus going beyond the scope of the MPA (Interview file MN02.XII20).

The issuing of the MMP has received support (e.g., expertise and data) from the Blue Belt Programme (Interview file MN02.XII20). The Plan was adopted following a broad process of consultation, which has avoided strong opposition during its implementation. The MMP is currently being revised because of legislative progress in related areas (e.g., fisheries) and in the light of more evidence from the field (Interview files MN03.I.21 and MN28.VII21).

PROTECTION OF SPECIES. The EPO of 2016 has certainly played a major role in the protection of species in St Helena. Compared to previous laws (i.e. Endangered Species Protection Ordinance of 2003), the EPO protects many more species and establishes a schedule. In addition, several action plans are in place for the protection of individual species. Currently, all species that are classified as threatened on the IUCN Red List are protected under the island's law (Taylor et al. 2016). The result in terms of the protection of species can be considered satisfying. However, for many species, information is not always available or sufficient to inform plans. In addition, IASs still constitute an important problem for biodiversity conservation in St Helena (Interview file MN28.VII21). The island has also put in place some restoration actions (Interview file MN28.VII21).

6.3. Major constraints in implementation

The UK has strengthened its environmental objectives both in response to international and EU commitments and as a result of its own sustainable development targets. The country signed several global and regional environmental agreements, such as the CBD

and the UNFCCC. The OTs have made significant progress in the designation of protected areas, the conservation of species and habitats, and the control of invasive species (Benzaken & Renard 2011). However, many OTs still face several problems in the conservation of biodiversity and important hindrances in the implementation of international commitments undertaken by the UK.

Most OTs still have outdated or incomplete legislative and regulatory frameworks and are affected by the weak implementation and enforcement of existing laws and regulations (Benzaken & Renard 2011; CEFAS & MMO 2019; DEFRA 2009). Let us analyse these elements in relation to the specific case of St Helena by putting them in the perspective of the other OTs⁷².

Legal frameworks are outdated in many OTs; yet, in some of them, the national governments have adopted new laws, developed new policies and improved the institutional arrangements to conserve biodiversity. In a few cases, even when new legislation has been drafted, it has not been enacted (CEFAS & MMO 2019). In the specific case of St Helena, the country has adopted some instruments (e.g., a national law for biodiversity and a strategy for its marine area, both in 2016). Yet, the country has not issued any national strategy for biodiversity or climate change to comply with international obligations (see CBD and UNFCCC). The reasons for these regulatory gaps need to be found in the prioritisation of public issues on the political agenda in the context of limited resources (Interview file MN03.I.21).

Although St Helena has revenues from taxes and sales and is pursuing financial self-sufficiency, an important amount of its public funding still originates from the UK⁷³ (Taylor et al. 2016). Financial resources are limited compared to the needs of the island and have suffered from budget cuts in recent years (Interview file MN03.I.21). As reported during interviews, 'funding is linked to politics and what people decide to spend money on' (Interview file MN02.XII20). In other words, the public funding – that originates in large amount from the UK – is dedicated to other issues than the environment such as health and education. In recent years, also the airport project has diverted political attention to other priorities (Interview file MN03.I.21).

⁷² The Blue Belt Programme held a workshop in St Helena on 11th March 2019 to reflect upon the achievements of several UK's OTs and their major constraints. The workshop was attended by participants from Ascension Island, South Georgia & the South Sandwich Islands (SGSSI), St Helena and Tristan da Cunha, the Falkland Islands as well as Namibia, the UK and the USA (CEFAS & MMO 2019). The Blue Belt Programme of the UK government supports the UK Overseas Territories with the protection and sustainable management of their marine environment (<https://www.gov.uk/government/publications/the-blue-belt-programme>; last access: 03.11.2020).

⁷³ St Helena benefits from the UK's overseas development aid. The Department for International Development (DFID) closed on 2 September 2020 and merged with the Foreign and Commonwealth Office (FCO) to create the Foreign, Commonwealth and Development Office (FCDO). Source: <https://www.gov.uk/world/organisations/dfid-overseas-territories> (last access: 17.11.2020; confirmed by interviews: Interview file MN01.XI20).

In addition to the development of policies, the same implementation (including enforcement) of existing political, legislative and regulatory instruments has been rather weak in many OTs due to several sources of conflict and the weak administrative capacity present in these islands (Benzaken & Renard 2011).

First, in several OTs, 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 our field research on St Helena. Coordination within St Helena seems to be good. The partnership approach with non-state actors also seems to be successful (Interview file MN28.VII21).

Second, like many other OTs – and OCTs of the EU – St Helena suffers from its remoteness and size (SHG 2018). Biodiversity on the island is, thus, threatened by development projects. The area available for these projects is quite limited but the urge for development of the population is quite high (Interview file MN02.XII20). Therefore, conflicts may arise between the land-use and development objectives of some parties, on one side, and the work of conservation and environmental departments and NGOs, on the other side (Benzaken & Renard 2011), especially in the absence of effective public information on environmental matters.

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 St Helena seems to be quite developed and has improved in the last twenty years (Interview file MN28.VII21). Indeed, in St Helena, policy development (e.g., the adoption of the EPO in 2016) has been possible thanks to strong community involvement (Interview file MN02.XII20).

Third, many OTs have small (and sometimes fragile) economies (DEFRA 2009). Therefore, they lack adequate financial, technical, physical and human resources (i.e. funding, equipment, infrastructures and personnel, respectively) for monitoring and enforcement (CEFAS & MMO 2019). 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). In this context, BREXIT will put the other major source of funding represented by the EU in peril (Interview file MN01.XI20).

With regard to human resources, the size of environmental departments varies a lot across the OTs but they are in general understaffed. Moreover, the small population of the OTs and their low geographical accessibility also limit the availability of technical expertise (DEFRA 2009). Once technical positions are filled, the high turnover of staff easily deprives

public agencies of skilled personnel and, ultimately, knowledge. All these elements impact negatively the administrative capacity of the OTs (CEFAS & MMO 2019).

The limited amount of resources has caused some inefficiencies in St Helena, too, namely in terms of management of its protected areas.

On the terrestrial side, only a few areas are currently protected in St Helena (as national parks or national conservation areas). Several places have been designated, but management plans are still missing for most of them (Interview file MN02.XII20). Management plans have not been issued as a result of a major obstacle that is the lack of resources, understood as both people and personnel with skills and time to work on the plans and funds to pay personnel. The limited amount of resources is insufficient vis-à-vis the high number of species present on the island and that are on the point of extinction. In this context, conservation efforts are directed to the highest priority at a specific time rather than planned on a longer term (Interview file MN02.XII20).

In the seas, the existing MPA 'has been managed as best as it could possibly be given the resources that we have', according to one of our interviewees (Interview file MN02.XII20). This is a general problem for environmental protection in St Helena, 'we do lack some funding and resources and expertise to put into these things' (Interview file MN02.XII20).

Environmental NGOs (e.g., St Helena National Trust and RSPB), partially compensate the local capacity for the protection of areas, species and the environment by channelling financial resources from UK-based foundations and the EU (Interview files MN02.XII20 and MN28.VII21). Again, BREXIT might have a negative impact on the sources of funding.

Fourth, some OTs (namely the ones located in the South Atlantic) are affected by insufficient data available: '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 these knowledge gaps will be pivotal for improving environmental management.

6.4. Final remarks

The case of St Helena has defined two main lines of action for future interventions on the policy framework and the capacity of the island. Similar considerations can be inferred for other OTs.

The legislative and institutional arrangements for biodiversity and marine environment conservation in St Helena should be completed, strengthened and updated. For instance,

St Helena still needs to adopt a National Biodiversity Strategy as requested by the CDB (Interview files MN28.VII21 and MN02.XII20). On the regulatory side, St Helena needs more plans for the management of protected areas and the protection of species (Interview file MN02.XII20). In the meantime, monitoring of species and habitats should be strengthened to inform more accurately the future management plans.

St Helena needs more financial and human resources; the current personnel employed in biodiversity conservation in the national public administration is very small (Interview file MN28.VII21). The UK's contribution to this end is pivotal, now more than ever; indeed, BREXIT has taken away an important source of funding for the OTs (e.g., EU's BEST initiative) (Interview file MN02.XII20). Therefore, the UK should confirm its past commitments (see Environmental Charters and the UK Post-2010 Biodiversity Framework) and support capacity-building in the OTs through funding, training and cross-territory skill exchange.

Exchanges across the OTs seem to happen regularly; in addition, an informal network brings together the OTs of the South Atlantic. It will be important to improve such exchange of information and knowledge across the OTs by encouraging regional collaboration so that the OTs can access a wider pool of expertise. The UK should also enable the OTs to access the expertise that is not available in their territories by building stronger linkages with academic institutions and nature conservation agencies in the UK and elsewhere (Interview file MN28.VII21).

7. CONCLUSIONS

The case selection on which this report is based was constrained by the research angle of the entire MOVE-ON project. The cases chosen (i.e. French Guiana and Reunion, Macaronesia and Saint Helena) serve well the project's objectives. From a disciplinary perspective, they do not allow for a comparative policy analysis *stricto sensu* since they represent very different systems with different results. In other words, neither the Most Similar System Design (requiring different results from similar cases) nor the Most Different System Design (looking at similar results from dissimilar cases) can be applied. Notwithstanding this methodological limitation, the chapter attempts to draw final considerations and lessons from the cases studied. Recurrent (rather than common) aspects might be applicable (with a cautious contextualisation) also to other ORs, OCTs and OTs. However, any effort of broad generalisation is weakened by the historical, constitutional and institutional differences across these territories.

7.1. Biodiversity policy implementation in overseas Europe

7.1.1. Legislation and strategies

All ORs of the EU are regions within the constitutional setting of a MS of the EU. Therefore, the national legislative and regulatory framework apply in those territories as in any other (mainland) region. With very few exceptions (e.g., the Nature Directives in French ORs), EU law, as well as Multilateral Environmental Agreements, are enacted by the central state through national legislation.

In the case of Reunion and French Guiana, the French State has complied with the key international and EU documents we selected for this report (table 7.1). France has adopted legal acts for the conservation of biodiversity and the fight against climate change and related national strategies. National laws and national strategies can be complemented by other regional strategic documents, but no regional environmental legal acts since French regions have no law-making power (with very few exceptions falling out of the focus of this report). While Reunion has complemented the national initiatives with a broad set of regional strategies, in French Guiana, the development of strategic documents is going slower. Yet, national policy frameworks are in place (table 7.1).

Similar considerations are valid for the Canary Islands. The Spanish legal framework and national strategies constitute the main regulatory reference also for the 17 *Comunidades Autónomas*. National laws and strategies are in line with the related international and EU commitments for biodiversity conservation, the marine environment and climate change (table 7.1). Unlike French regions, Spanish regions can adopt additional legislative instruments; yet, we could not find any specific law or strategy for the Canary Islands at the time of writing (Autumn 2021). Regional laws for biodiversity and climate change are foreseen for the near future (possibly 2022).

Likewise, the Azores are covered by Portugal's national set of legal and strategic documents for both biodiversity and climate change, adapting these laws to regional specificities through their own regional legislation (e.g., Regional Legal Framework of Nature Conservation and Biodiversity of 2012).

The OTs of the UK present a very different case when compared with the ORs of the EU. While Reunion, French Guiana, the Canary Islands and the Azores are *regions* within their national constitutional setting (and hence regions of the EU), the OTs of the UK, such as Saint Helena, are largely self-autonomous territories that have never been subject to the EU law (or *acquis communautaire*). Therefore, the laws and strategies of Saint Helena are only the ones adopted by this island; they partially comply with international agreements (for instance for biodiversity), although the island still lacks a National Biodiversity Strategy, a law on Climate Change and an adaptation plan (table 7.1). While St Helena has in part developed its legal framework for biodiversity protection (see EPO 2016), many other OTs of the UK still have outdated or incomplete legislative and regulatory frameworks.

7.1.2. Measures

Based on the international and EU commitments explained in Chapter 2 (see table 2.3 for an overview), the analysis of the Anchor regions selected for this report has focused on specific policy interventions for the protection of areas and species, and other tools such as restoration initiatives.

PROTECTION OF AREAS. European overseas entities have made some progress in the establishment and management of protected areas. In several ORs of the EU and the OTs of the UK, the surface area under protection has increased in the last couple of decades with the creation of several protected areas. This is the case for all our cases: Reunion, French Guiana, Canary Islands, the Azores, and St Helena (table 7.1).

However, after their establishment, the effective management of these protected areas on land and at sea largely depends on funding which is often insufficient (see section 7.3) (Benzaken & Renard 2011). Further improvements are, indeed, needed in the actual management (and enforcement) of these protected areas. For instance, 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. Weaknesses during enforcement also characterised protected areas in the Azores. Protected areas both on land and in the sea have also been established in St 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.

Another important aspect that calls for improvement is ensuring that all ecosystems are represented in these protected areas.

PROTECTION OF SPECIES. Despite the efforts to defend several endangered sections of the European flora and fauna overseas, many vegetal and animal species are still threatened and in decline in the ORs, OCTs and OTs. Habitat destruction (due to urbanisation, coastal development, poor watershed management, mining and inadequate development control), pollution and IAS constitute the major threats to species conservation in most overseas entities of the EU and the UK (Benzaken & Renard 2011).

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 St Helena. Measures to control local biodiversity from IASs have also been put in place in various EU overseas entities (e.g., most French ORs and OCTs as well as the Macaronesian ORs) and the OTs of the UK (Benzaken & Renard 2011).

The protection of species is nonetheless difficult in these territories. 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, but IASs still threaten the biodiversity of the region. In St Helena, the protection of species has improved since the adoption of the EPO in 2016 and the designation of protected areas, but IAS still constitutes an important threat to its environment.

OTHER MEASURES. 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 the 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 St Helena (table 7.1). However, restoration interventions are often sporadic, mainly because of scarce resources.

Not always the efforts deployed by European overseas entities toward biodiversity conservation have determined an actual improvement in the state of biodiversity. This is due to several constraints that we discuss in the following section.

Table 7.1: Summary table⁷⁴

PERFORMANCE INDICATORS AND REFERENCE		Reunion	French Guiana	Canary Islands	Azores	Saint Helena
A. LEGISLATION	Biodiversity conservation 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 19/2014 - Nature Conservation and Biodiversity Law (Decree Law 142/2008) - Marine spatial planning and management Law 17/2014 - - - - Regional Legal Framework of Nature Conservation and Biodiversity (Decree law 15/2012/A)	- Environmental Protection Ordinance (2016)
	Climate change 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	- Loi relative à l'énergie et au climat (2019) - Loi portant lutte contre le dérèglement climatique et renforcement de la résilience face à ses	- Ley 7/2021 de cambio climático y transición energética - A regional law for biodiversity is foreseen for 2022	- Climate Framework Law 98/2021	- Climate Change Policy

⁷⁴ Table 7.1 is based on the Scoreboard presented in Annex A and summarise all tables for the five cases studied in this report. Some cells have been brought together to simplify the design of the table. The colour used are also the ones defined in Annex A: green (yes), red (no), yellow (in progress). Funding has been taken out of this table since its inadequacy has been reported as a common issue across all cases analysed.

		effets (2021)	effets (2021)			
B. STRATEGIES	<i>Biodiversity conservation</i> CBD, ABTs	- Second National Biodiversity Strategy (2011) --- - 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	- Second National Biodiversity Strategy (2011)	- Strategic Plan on Natural Heritage and Biodiversity (2011)	- National Strategy for the Conservation of Nature and Biodiversity to 2030 (2018)	<i>Missing but a National Environmental Management Plan (2012)</i>
	<i>Marine environment</i> MSFD	- <i>Stratégie nationale pour la mer et le littoral (2017)</i> --- - <i>Document stratégique de bassin maritime Sud océan indien (2020-2026)</i>	- <i>Stratégie nationale pour la mer et le littoral (2017)</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>Marine Strategies for Spain (2018)</i> --- <i>Estrategia marina de la demarcación marina canaria (2018)</i>	- National Strategy for the Sea 2021-2030 (2021) --- - Marine Strategy for the subdivision of the Azores (2014)	<i>Marine Management Plan (2016)</i> *** out of the <i>acquis communautaire</i>
	<i>Climate change</i> 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)	- Strategic Framework for Climate Policy (2015) - National Programme for Climate Change 2020-2030 (2015) - National Adaptation to the Climate	<i>Missing</i>

					<p>Change Strategy 2020 (2019)</p> <p>---</p> <ul style="list-style-type: none"> - Regional Strategy for Climate Change (2011) - Regional Program for Climate Change (2019) 	
C. MEASURES	<p><i>Biodiversity protection</i></p> <p>CBD, ABTs</p> <p>HD, BD</p> <p>MSFD</p>	<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 exists 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 - Progress in the increase of MPAs 	<ul style="list-style-type: none"> - Designation of 23 National Conservation Areas (44% of the island) but no management plans - One extensive MPA with a Marine Management Plan (2016) - Protection of species
	<p><i>Biodiversity restoration</i></p>	<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"> - Some restoration actions



FROM CASE STUDIES TO ANCHOR PROJECTS - SETTING THE
GROUND TO ADVANCE MAES IN EUROPE'S OVERSEAS.



7.2. Challenges

EU overseas entities have adopted legislation, issued strategic documents and conducted specific policy initiatives to conserve biodiversity and combat climate change in response to international and EU commitments and following policy developments at the national level in the case of ORs.

ORs of the EU can have a varying degree of regulatory power depending on the constitutional arrangements of their state. Whether they can issue regional laws in addition to the national frameworks (see Spain and Portugal) or only regional strategic schemes (like in France), they are all responsible for the implementation of biodiversity policy in their territories. Political and administrative structures are different and rooted in national traditions. In general, issues of centre-centre, centre-local and local-local coordination may emerge in complex multi-layered bureaucratic systems.

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 OTs of the UK are independent and small countries that issue their own legal and regulatory measures and implement them through small national and local administrations. EU law has never applied to these entities even before Brexit, although they could benefit from specific EU funding schemes (e.g., the BEST initiative).

Despite such differences, some recurrent (if not common) challenges during the execution of international and national policies for biodiversity conservation and climate change emerged during our empirical analysis, as we summarise here.

PRIORITIES ON THE POLITICAL AGENDAS. The first major obstacle in the enactment of international and EU commitments and their national implementation is represented by the misalignment of international policy targets with national and subnational political agendas. Other policy priorities than the environment seem to crowd these agendas in some of the contexts we have analysed. The need for more economic development and the social request for more employment can distort political attention away from biodiversity and towards rentable sectors (e.g., tourism). This can slow down the implementation of national laws and strategies in line with international and EU commitments (e.g., French Guiana). The misalignment can also impact the same development of new laws in line with international commitments in those areas – e.g., the OTs – where EU law and its binding mechanisms do not apply. The case of St Helena has shown that gaps in the legislative framework can be caused by the prioritisation of other

public issues, particularly in the context of limited resources. The same allocation of funds for the environment is negatively impacted by political agendas that are crowded with other socio-economic concerns.

COHERENCE ACROSS POLICIES. Another problem is the weak integration of biodiversity as a priority across policy domains. The presence of incoherent and uncoordinated policies and legal frameworks around a common objective of sustainability is not an issue only experienced by EU's overseas entities, but here the problem is exacerbated by the distance of these territories from their EU country of reference. Due to the institutional settings, the problem is even more acute in OCTs compared to ORs.

ADMINISTRATIVE COMPLEXITY. In those countries with a complex administrative system or characterised by a power devolution to the subnational level (e.g., France and Spain), the presence of multiple authorities and centres of power can determine delays in the implementation of international (and EU) as well as national policy objectives. In some cases, the division of responsibility between the national agencies competent for biodiversity and those responsible for overseas entities is rather unclear and blurred (Benzaken & Renard 2011). The same unclarity characterises the relations between national agencies in charge of biodiversity and the corresponding authorities in the ORs. However, administrative coordination can somewhat compensate for these shortcomings, as reported for the Canary Islands. The establishment of a regional agency for biodiversity (see the case of Reunion) also constitutes a means to promote coordination.

CONFLICTING INTERESTS. In the establishment of political agendas, elected representatives tend to defend the national or subnational interests of specific economic sectors (e.g. tourism and fisheries) in the context of a general pursuit of economic development in these small and remote areas of the planet, the presence of sectoral interests opposing policy interventions for the protection of the coastal and marine environment also makes enforcement particularly difficult in areas that suffer from the recurrent problem of scarce resources.

For instance, in the Canary Islands, the establishment of MPAs seems to be delayed by a matter of public acceptance (by the fishing industry, for instance). Moreover, the protection of the coast can be hindered by development projects and mass tourism.. Development projects can more easily claim territory from these very small entities (ORs, OCTs and OTs), particularly where legal protection has not been established in practice (like in the case of St Helena's terrestrial protected areas). Public engagement could partially ease the solution of conflicting views on the needs of a territory, but a participatory culture is not very well developed in all the overseas entities of Europe (e.g., the French ORs).

RESOURCES ALLOCATION. Despite European countries have increased their efforts to the benefit of their overseas entities in the last two decades, the picture in terms of resources is very mixed across these entities. The allocation of resources largely depends on the national or subnational political agendas (see above). Some overseas entities have conservation agencies that are well resourced in terms of funding, personnel and expertise; some others – particularly the smallest islands – face many problems in terms of administrative capacity. As an example, the Portuguese ORs benefit from large investments made in the public sector by the national government; both regions have research departments and infrastructures for biodiversity.

However, funding remains a key common problem: the resources made available for biodiversity conservation (as funding, personnel and expertise) are not adequate for the richness of biodiversity in these areas. This also jeopardises monitoring and enforcement for the protection of areas (on land and in the sea) as it happens in the Canary Islands and the Azores. In St Helena, insufficient resources have hindered the adoption of strategic documents (for biodiversity and climate change), implementation measures (for the main environmental legal framework), management plans (for the protection of terrestrial areas) and enforcement activities. The recent exit of the UK from the EU will make it even more difficult for the OTs to find financial sources.

To sum up, the availability of resources represents an important obstacle, either because resources are limited even when biodiversity receives full commitment by the responsible decision-makers or because the existing resources are diverted to other priorities in line with the current political agendas.

DATA AVAILABILITY. Good data and expertise are needed to inform policy development and implementation. The situation in the overseas entities varies largely. Some of them can count on competent research institutions. By contrast, many small and isolated OCTs suffer from a lack of adequate knowledge (Benzaken & Renard 2011). The same is true for some ORs (e.g., Canary Islands) and OTs (e.g., St Helena).

Data availability requires large amounts of resources, particularly where the richness of the territory in terms of biodiversity is still largely unexplored, like in the case of French Guiana. In the absence of adequate data, the same inclusion of species and habitats in protection measures becomes lengthier, as it seems to be the case in the Canary Islands. In the specific case of the Canary Islands, it is not the data *per se* that are lacking but a system (and personnel) to integrate all data available across themes and geographical areas. More detailed information for the protection of species is also needed beyond the EU borders, namely in St Helena.

Unfortunately, cooperation among Europe's overseas entities is rather weak, which compromises any possibility of knowledge exchange and capacity building across them.

One mechanism that is worth mentioning for the OCTs is the Overseas Countries and Territories Association (OCTA) that was established in 2000 among some OCTs. Likewise, the participation of overseas entities in regional mechanisms in the geographical areas where they are located is rather patchy and weak (Benzaken & Renard 2011).

7.3. Which way forward?

Although many overseas entities have achieved some important objectives and shown some progress, they still face several challenges that hinder the implementation of national biodiversity policies and strategies defined at the international, EU and national level (see section 7.1). Several lines of action can be listed at this stage of the development of the MOVE-ON project that call for further investigation about their contextual viability:

- Align national and subnational political agendas by taking into account both international commitments and local priorities;
- Pursue the adoption of subnational strategies for biodiversity conservation;
- Enhance administrative (horizontal and vertical) coordination at multiple levels;
- Promote local awareness on biodiversity issues;
- Involve society to ease implementation, particularly enforcement;
- Enhance national budgets for biodiversity conservation;
- Increase administrative capacity;
- Improve data availability and the science-policy interaction;
- Strengthen regional mechanism of coordination among ORs and OCTs.

Similar directions were also formulated in the Message from Guadeloupe issued in 2014.



Annex A - Scoreboard

PERFORMANCE INDICATORS		REFERENCE	PROGRESS
A. LEGISLATION	Legislative framework for biodiversity conservation Necessary legislation and regulatory provisions for the protection of threatened species and populations are in place.	CBD	<ul style="list-style-type: none"> • Yes (green) • No (red) • In progress (yellow)
	Legislative framework for climate change National policies and measures for climate change mitigation and adaptation are adopted and integrated in national development programmes.	UNFCCC	<ul style="list-style-type: none"> • Yes (green) • No (red) • In progress (yellow)
B. STRATEGIES	National strategy for biodiversity conservation National Biodiversity Strategies and Action Plans (NBSAPs) are developed, adopted and being implemented.	CBD, ABTs	<ul style="list-style-type: none"> • Yes (green) • No (red) • In progress (yellow)
	National strategy for the marine environment National marine strategies (NMSs) are adopted and implemented.	MSFD	<ul style="list-style-type: none"> • Yes (green) • No (red) • In progress (yellow)
	National strategy for climate change - Mitigation strategies are formulated and implemented (i.e. limiting emissions of greenhouse gases and protecting greenhouse gas sinks and reservoirs). - Nationally Determined Contributions (NDCs) to lower level of gas emissions are prepared every 5 years. - Plans for adaptation are developed.	UNFCCC, PA	<ul style="list-style-type: none"> • Yes (green) • No (red) • In progress (yellow)
C. MEASURES	Protection of areas - A system of protected areas is established. - Protected areas are increased (17% terrestrial and inland water areas; 10% coastal and marine areas) and conserved. - <i>Special Areas of Conservation (SACs) are designated as part of the Natura 2000 network and appropriately managed.</i> - <i>Protected areas are created; Special Protection Areas (SPAs) are designated.</i>	CBD, ABTs HD, BD	<ul style="list-style-type: none"> • Yes (green) • No (red) • In progress (yellow)
	Protection of areas A programme of measures is adopted (e.g., 'spatial protection measures').	MSFD	<ul style="list-style-type: none"> • Yes (green) • No (red) • In progress (yellow)
	Protection of species Strict protection of relevant habitats and species is ensured.	HD	<ul style="list-style-type: none"> • Yes (green) • No (red) • In progress (yellow)
	IASs Invasive alien species are prevented and controlled.	CBD, ABTs	<ul style="list-style-type: none"> • Yes (green) • No (red)

	<p>Non-native species</p> <ul style="list-style-type: none"> - Introduction of non-native species is regulated to preserve relevant habitats and species. - Introduction of species of birds which do not occur naturally in the wild state is regulated to safeguard local flora and fauna. 	HB, BD	<ul style="list-style-type: none"> • In progress (yellow) • Yes (green) • No (red) • In progress (yellow)
	<p>Restoration initiatives</p> <ul style="list-style-type: none"> - Degraded ecosystems are restored. - Ecosystems that provide essential services are restored and safeguarded. 	CBD, ABTs	<ul style="list-style-type: none"> • Yes (green) • No (red) • In progress (yellow)
D. FUNDING	<p>Financial resources for biodiversity conservation</p> <p>Mobilization of financial resources is increased.</p>	ABTs	<ul style="list-style-type: none"> • Yes (green) • No (red) • In progress (yellow)



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