

The Azores (Portugal) Sub-national report Biodiversa+ Governance Sub-pilot

1. Name of the country / sub-national region

The Azores (Portugal).

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2. Governance structure and solutions (Objective 1)

Overview

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). As an autonomous region of Portugal since 1976, the Azores has established its own set of environmental laws and regulations. The region has seamlessly integrated the primary national laws and strategies adopted by Portugal into its framework, aligning with the country's international and EU commitments concerning biodiversity. This report exclusively focuses on official and active biodiversity monitoring schemes and programmes taking place in any of the Azores islands.

In the Azores, the coordination of monitoring programmes is split into terrestrial (including freshwater) and marine realms. Specifically, the terrestrial biodiversity monitoring and management is under the seal of the regional government entities with competence in environment and climate change fields (Regional Secretariat for the Environment and Climate Change), and agriculture and forestry (Regional Secretariat for Agriculture and Forestry); while the marine biodiversity is under the seal of the regional governmental entity with competences in the sea affairs (Regional Secretariat for the Sea and Fisheries). Typically, the operationalization of these biodiversity monitoring s is performed by the affiliated regional directorates.

In comparison with the mainland, the Azores maintain some degree of independence for biodiversity monitoring and reporting. Monitoring programmes implemented in the region, have

been designed not only to align with various EU Directives but also to address specific needs and constraints related to biodiversity monitoring in small islands. Data is initially collected by regional governmental entities with competence in the area and/or resorting to subcontracted services to external entities (research centers, university, local NGOs, enterprises, etc.). Subsequently, Azorean biodiversity data can be either nationally centralized to the national competent authorities that report at the member state level to the European Commission (directives), reported to the external coordinating entities (e.g. LIFE projects, Interreg MAC and other programs), or to the regional government itself, for policy support decisions (regional action plans). In the case of marine biodiversity monitoring, the Azores' independence is somewhat limited as the marine area is shared with neighbouring countries and islands. Marine habitat reporting is distinct for the Azores and other Macaronesia islands. Various scientific stakeholders, including regional authorities, NGOs, naturalist societies, researchers, and others, play a central role in implementing monitoring programs and producing data. Furthermore, Azores reporting for EU biodiversity requirements remains predominantly independent from the national GBIF nodes.

Biodiversity data management and interoperability solutions in the region exhibit significant variability. Currently, there is neither a regional nor national hub serving as a biodiversity coordination monitoring centre. Thus, there is a need for preparatory work, considering the Azores particular framework as a Portuguese autonomous region with a territory fragmented into 9 islands, prior to the potential integration into a new EU hub (BMCC). Despite, the high potential of some existing structures, there is still a need for a seamless integration of the current organizational structure.

2.1. Current situation with a national biodiversity monitoring centre

Currently there is no single definition for a national biodiversity monitoring centre, but Biodiversa+ seeks to facilitate that development. A national biodiversity monitoring centre could be understood as a concept to coordinate biodiversity monitoring on a national level, and to act as a national point of contact for international cooperation on biodiversity monitoring. A national biodiversity monitoring centre could be anything from a website that provides access to national biodiversity monitoring schemes and programmes, to a staffed institute that coordinates and develops biodiversity monitoring nationally.

Against this backdrop, does your country have a biodiversity monitoring coordination centre?

- Yes. Please answer question 2.1.1
- No. Please answer question 2.1.2

2.1.1. The process of establishing the national biodiversity monitoring centre

2.1.2. Possible pathways and timeline for establishing a national biodiversity monitoring centre

There is not yet a regional/national biodiversity monitoring coordination centre in Portugal. The possibility of the establishment of a coordination centre in the Azores (needed to fulfil some of the needs and constraints related to biodiversity data and reporting of small islands) has been highlighted by the majority of the stakeholders consulted (interviews and questionnaires)¹. The participatory consultation made with key contributors of biodiversity monitoring in the Azores, highlighted common concerns/requirements prior to the establishment a regional hub, specifically:

- Need for standardizing biodiversity data and the collection methods. Proper training and capacity building of specialized personnel is required, including the hiring of additional technical staff.
- Monitoring biodiversity on oceanic islands entail specific challenges associated with scale adjustment, thus regional databases and report filling need to reflect these specificities (could be overcome by the establishment of a regional hub). For instance, the completeness of monitoring grids at the regional level, as derived from national and EU-level standards, can lead to incongruences in reporting results for EU Directives.
- There is a need to digitize and properly format/harmonize data, leveraging existing sources and repositories to facilitate synergies among existing platforms and avoid duplication (seamless data integration).
- There is a need to establish synergies among different sectors and actors involved in biodiversity monitoring in the Azores (universities, research centers, enterprises, NGOs, government entities) for data sharing and centralization, while potential conflicts of interest need to be addressed and safeguarded.
- Biodiversity data need to be available and accessible to all (data contributors, users and general society), with consideration for potential conflicts of interest and intellectual property rights.
- There is a need for continuous funding for biodiversity monitoring programs, including financial resources allocated to data collection, database loading and standardization, taxonomic verification and updating, and data research (literature) to ensure the inclusion of historical data not digitalized yet.
- There is a common understanding that a regional hub should be established and maintained by the Azores Regional Government, ensuring the long-term viability of

¹ Aiming to engage relevant parties and key individuals involved in biodiversity monitoring schemes in the Azores, FRCT conducted a set interviews and surveys with preselected regional stakeholders, to gather the information needed for the revision of the regional governance structures, biodiversity monitoring schemes and their data management structures, laying the foundation for the establishment of BMCC through national and/or regional hubs.

this infrastructure.

To ensure that these concerns/requirements are met prior to the creation of a regional hub in Azores, it is suggested the establishment of a working group comprising elected specialists representing organizations that produce and use biodiversity data, including national/regional government entities, universities/research centers, and other relevant actors. This working group could be assigned for the development of the regional hub roadmap, ensuring the needed synergies and safeguarding the particular interests of each stakeholder sector. In addition, this group can be included as advisory board for the governance and operationalization decisions coming from the regional biodiversity monitoring center in the Azores.

A crucial step identified for the establishment of a regional hub, is the exhaustive mapping of the biodiversity monitoring landscape in Azores, i.e. a comprehensive census of available biodiversity data, from past and current biodiversity monitoring programmes (who are the key players, which data is collected, to what purpose, to whom is reported, where is stored, etc.). Currently, there is a significant amount of biodiversity data that remains inaccessible due to being in paper format or stored in private datasets. In addition, there is an overlap of several monitoring programmes, where the same data is collected by different actors for different reporting requirements (EU directives, Life Program, etc.). This situation could be easily overcome if biodiversity monitoring databases were available in a single, freely accessible repository.

2.2 Current governance model

The Azores' terrestrial territory comprises 9 islands and islets, totaling 2324 km². The maritime territory spans 960,432 km² within the Exclusive Economic Zone. Due to Birds and Habitats Directives, 15% of terrestrial area integrates the Natura 2000 Network. In the marine realm, 3.7% of the space under national jurisdiction near the Azores is classified, excluding areas beyond 200 nautical miles. Natura 2000 marine coverage in the Azores represents about 0.04% of the adjacent maritime space.

The biodiversity monitoring programmes being implemented in the Azores, directly feed the national reports (member state level) related to the bird directives, habitat directives, water directives, marine spatial planning – Azores subdivision, marine strategy directive – Azores subdivision, and the Natura 2000 network. The Azores' data, is reported by the regional competent authorities, centralized into the national competent authorities that reporting directly to the European Commission. To support the acquisition of knowledge and data for fulfill these requirements, several projects are implemented in Azores, the majority being led by the regional governmental entities with competences on the area, whose results and reports are submitted to the European Commission, directly or to the coordinating entity (e.g. LIFE projects, Interreg MAC and other programs), or to the regional government itself for policy support decisions (regional action plans). An indicative list of biodiversity monitoring programmes is listed in Annex 1 (based on interviews, not exhaustive).

In the Azores, the coordination of monitoring programmes is split into terrestrial (including freshwater) and marine realms. Specifically, the terrestrial biodiversity monitoring and management is under the seal of the regional government entities with competence in environment and climate change fields (Regional Secretariat for the Environment and Climate Change), and agriculture and forestry (Regional Secretariat for Agriculture and Forestry); while the marine biodiversity is under the seal of the regional governmental entity with competences in the sea affairs (Regional Secretariat for the Sea and Fisheries). Typically, the operationalization of these biodiversity monitoring programmes is performed by the correspondent affiliated regional directorates. Portugal national GBIF core is the Instituto Superior de Agronomia (Universidade de Lisboa), with the location head delegation being the CIBIO-InBio, (Universidade do Porto).

At the regional level, government public entities coordinating biodiversity monitoring often subcontract external scientific advisory groups for data collection, management, and reporting. Key regional subcontracted entities include the University of the Azores, research centers (GBA-cE3c, CIBIO-Azores, IMAR, OKEANOS), whale watching companies, and SPEA-Azores. Occasionally, external entities are sought, such as national research centers like CIBIO-Porto.

The general framework of biodiversity monitoring programmes in Azores lacks of a soils biodiversity monitoring scheme.

Terrestrial realm

The Regional Secretariat for the Environment and Climate Change (SRAAC) is the department of the Regional Government of the Azores responsible for defining and implementing actions necessary to fulfill regional policies in field of environmental, biodiversity protection and enhancement (among others). As an operating service, under the umbrella of SRRAC, the Regional Directorate for the Environment and Climate Change (DRAAC) carries specific monitoring actions for species and habitats, leading many of the regional biodiversity monitoring programmes in the Azores (Annex 1). DRAAC manages the Azorean Seed Bank (BSA) located at the Botanical Garden of Faial (JBF). The primary goal is to conserve endemic and native species in the Azores, with a focus on prioritizing the preservation of species classified as rare and/or endangered.

A significant portion of the biodiversity monitoring data collected by DRAAC adheres to FAIR principles and can be converted to the Darwin Core data standard for submission to the Global Biodiversity Information Facility. Currently, DRAAC is developing an application WEBSIG to upload data they generate in an open source database, although FAIR principles are not safeguarded. Additionally, DRAAC uploads new species records into the crowdsourced species identification system, [iNaturalist](#).

The SRAAC, through the DRAAC, is responsible for the submission of regional data and reports to the national authority for nature conservation and biodiversity (Institute for Nature Conservation and Forests – ICNF) under the supervision of the Ministries of Environment and Agriculture, Forestry and Rural Development. The ICNF, a national agency, implements

policies for nature conservation, biodiversity, forestry, hunting, freshwater fishing, and combating desertification.

Although not directly involved in biodiversity monitoring, the Regional Secretariat for Agriculture and Forestry Resources, through the Regional Directorate for Forestry Resources, is responsible for the definition of regional policies for the protection, development, and use of forest, hunting, and freshwater fishery resources in the Azores. They collect biodiversity data in these environments. Generally, this biodiversity data is not intended to feed EU directives reporting but rather to feed operational programs and provide policy-making decision support. Some of the data collected in these monitoring programmes adhere to the FAIR principles, while others do not. Additionally, certain data is still stored in the internal databases of the DRRF, and in subcontracted entities (responsible for data collection, management, and advisory services), such as the University of the Azores and the University of Porto (CIBIO).

As a final remark, it's essential to emphasize the pivotal role of the Azorean Biodiversity Group (GBA-cE3c), that voluntarily developed, own, and maintain the [Azorean Biodiversity Portal](#) - a dedicated database with a 20-year history and well-established protocols for seamless data collection, storage, analysis, and reporting. The GBA-cE3c is connected to [Biodiversity4all](#) initiative, that is in turn connected to [iNaturalist](#). It is also integrated to the Portuguese e-infrastructure for information and research [PORBIOTA](#), sharing information with the GBIF Portuguese node, and with the EU e-infrastructure for research [LifeWatch ERIC](#). Additionally, specific biodiversity monitoring data, focusing on vascular plants in the Azorean flora, along with their photographic, geographical, morphological, and ecological information, is uploaded to the open-source portal [Flora-On](#), that compiles these data for the entire Portuguese territory.

- Marine realm

The monitoring and management of marine biodiversity fall under the jurisdiction of the Regional Secretariat for the Sea and Fisheries, the governmental entity responsible for defining and implementing regional policies on oceanography, fisheries, aquaculture, and the conservation of the marine environment, as well as other matters related to the sea. They include the planning and management of the coastline and marine protected areas, and maritime spatial planning. To carry out specific actions for monitoring marine biodiversity under this secretariat's supervision, the Regional Directorate for Fisheries (DRP) and the Regional Directorate for Maritime Policies (DRPM) operate regional biodiversity monitoring programmes within their respective areas of competence (see Annex 1). Both DRP and DRPM report Azores biodiversity data to the national authority the General Directorate for Natural Resources, Safety and Maritime Services (DGRM), under the Ministry of the Sea and in coordination with the Minister of the Environment and the Minister of Science, Technology and Higher Education. DGRM is the national governmental entity that coordinates the implementation of the Marine Strategy Framework Directive (MSFD) and it's the national representative for the OSPAR Convention. These functions are executed through the Portuguese Institute for the Sea and the Atmosphere (IPMA).

On this realm, the regional government of the Azores (through DRPM), hosts a portal dedicated to the Azores Marine Spatial Planning - [the OEMA portal](#), that includes data on biodiversity, namely on coastal and oceanic species, corals and sponges, hydrothermal fields, cetaceans, birds and sea turtles within the framework of the Directive 2014/89/EU – Marine Spatial Planning. Additionally, the geoportal [SIGMAR](#), gathers years of data on the distribution of commercial species. Part of the monitoring programmes implemented by DRP and DRPM follow the FAIR principles, while some data is still hosted in internal databases, and/or on sub-contracted entities.

2.2.1. Examples of governance models

The DRAAC manages the Azorean BSA at JBF, aiming to conserve endemic and native species in the Azores, prioritizing those with rare or endangered status. Collection and conservation protocols for seeds adapt internationally recognized ENSCONET and Millennium Seed Bank protocols to the local context and budget. Experts plan the annual seed collection in advance, targeting specific species. Trained collectors across the archipelago obtain seeds, mainly between May and October. Seeds are sent to the BSA on Faial Island, accompanied by a technical datasheet. The datasheet includes crucial details such as seed count, species, collector, island, council, community area, locality, collection date, UTM (WGS84) coordinates, location height, herbarium presentation of the species (Yes/No), additional spatial coordinates, sample dimensions, habitat information including phenological state, area orientation with respect to cardinal points, whether collectors photographed the individuals, associated species, and other annotations.

Upon arrival at the BSA, seeds are dried, stored in assay tubes, and later frozen. Periodic germination assays are conducted with the ultimate goal of using the seeds in restoration programs when needed. For instance, the extinct *Myosotis azorica* on Flores Island was successfully reintroduced through BSA efforts. The BSA's seed information database is integrated into the DRAAC internal database, with restricted access due to the sensitivity of information concerning the locations of rare and endangered species. While fully financed by the DRAAC, the BSA periodically benefits from external funding, including support from BASEMAC, BIOCLIMAC, ZEPHYR, CWR, LIFE VIDALIA, and LIFE IP NATURA.

2.3 Specific messages for the European Biodiversity Monitoring Coordination Centre (BMCC)

2.3.1 Is there any specific information/data for which you see an added value to integrate with the BMCC?

In general, respondents in the questionnaires and interviews found the establishment of a European Biodiversity Monitoring and Coordination Centre (BMCC) to be advantageous. Some of the benefits highlighted by participants include:

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- Enhanced coordination among national hubs
- Consensus on standardized protocols.
- Harmonization of existing data based on agreed-upon standards.
- Digitization of paper-based collections.
- Integration of various infrastructures, platforms, and portals.
- Establishment of long-term governmental and EU funds, providing independence from short-term funding.
- Potential to attract private investors for sustained, long-term funding.
- Opportunity to establish new monitoring facilities.

2.3.2 Besides data coordination, is there any other coordination from the BMCC that you would like to be established (e.g., knowledge exchange, sampling design, indicator development, monitoring facilities, storage of collected specimens)

- Capacity building for standardized methodology and sampling design.
- Establishing agreements on data and metadata standards.
- Creating monitoring facilities and dedicated infrastructure for collections storage and maintenance.
- Facilitating synergies between countries and the EU.

2.3.3 What kind of long-term support would you foresee from the BMCC?

All regional stakeholders who participated in the survey and interviews stressed the vital role of EU and governmental funding as essential support for establishing the BMCC. Additionally, the importance of properly maintaining BMCC operations and ensuring the periodic update of biodiversity monitoring data was underscored. Finally, it was also emphasized the need for collaboration, exchange, linkages between organisations and infrastructures at all levels.

3. Data management, interoperability solutions and standardisation (Objectives 2 and 3)

3.1. Data management and interoperability in biodiversity monitoring

3.1.1. Current national model for data collection (e.g., harmonised collection methods, what to monitor).

The majority of biodiversity data collected in the Azores through monitoring programmes aligns with the regional reporting obligations to EU Directives, specifically covering bird directives, habitat directive species, water directives, marine spatial planning (Azores subdivision), marine strategy directive (Azores subdivision), and the Natura 2000 network. Regional experts in each field oversee the revision of the Red List of Threatened Species (IUCN). Regionally, the

collection of biodiversity data is not centralized; instead, it involves a collaborative effort with regional governmental entities and other key stakeholders, including research centres, universities, local NGOs, and enterprises (often subcontracted for specific tasks). Within this framework, biodiversity monitoring employs state-of-the-art sampling methodologies, mostly determined by expert ecologists/biologists affiliated with respective institutes, universities, and/or governmental entities. For more details on how biodiversity data is collected and reported in the Azores, consult section 3.1.2.

3.1.2 Current national governance model for data reporting (e.g., field collection apps, data portals)

The monitoring of biodiversity data within the framework of the bird directives, habitat directive water directives, marine spatial planning (Azores subdivision), marine strategy directive (Azores subdivision); follows organized and standardized procedures, with reports submitted to the European Commission every six years. A part from this, there is no unified national/regional governance model for biodiversity data reporting. In certain monitoring programs, primary data are accessible through public data portals. In contrast, in some programs, monitoring data is stored in databases that belong to the respective organizations and are not publicly accessible – particular case of sensitive species monitoring data. Finally, some biodiversity monitoring datasets are stored in non-public databases, with plans for eventual transfer to a public data portal. This transfer is subject to a specific time delay, ensuring discretion for their use in academic publications.

Azorean Biodiversity data is primarily collected (from) and reported (to):

- Data collected by DRAAC - available through the Azorean Biodiversity Portal, Flora-On and the official reports available in their public webpage (sent to the European Commission through the ICNF). Some data are not reported and are stored in the organization's non-public database or in paper format. Currently, the organization is developing a web SIG to make all data accessible through open access.
- Data collected by DRPM, the DRP, Okeanos and IMAR - available through the EMA portal, SIGMAR, and the Azorean Biodiversity Portal, all open-source platforms. Some data are stored in non-public databases or in paper format and are not reported. For instance, Okeanos has a substantial marine species collection without maintenance due to limited human resources, resulting from a citizen science project about demersal species obtained through fishermen's casual catches. Another example is the DRRF, which possesses comprehensive habitat cartography at the RAA level in a non-public internal database.

Data collected by SPEA - available through the eBird, a large global biodiversity-related citizen science project managed by the Cornell Lab of Ornithology, involving numerous partner organizations, regional experts, and a vast user community.

More details about the governance related with data reporting are provided in section 2.1.1.

3.1.3 Current national governance model for data quality (e.g., data validation, data formats)

The validation is a necessary process to maintain the data quality. Species and habitat data are safeguarded through validation process provided by regional experts working in each specific monitoring program, and/or through subcontracted services with university and research centres affiliated. In the case of eBird, when entering sightings, observers are presented with a list of likely birds for that date and region. These checklist filters are developed by knowledgeable bird distribution experts around the world.

3.1.4 Current national governance model for data storage (e.g., data-hosts, databases)

Please see section 3.1.2.

3.1.5 Current national governance model for data security (as considered relevant, e.g., red-listed species, diffusion coordinates, GDPR, other laws surrounding national security)

In addition to legal obligations, such as GDPR, stakeholders involved in the survey and interviews suggest specific restrictions on biodiversity data access. For example, when dealing with sensitive species, the DRAAC deliberately refrains from reporting the exact location but provides an approximate one using diffuse coordinates. This practice is exemplified by the location data for *Platanthera azorica*, the rarest orchid in Europe.

3.1.6 Current national governance model for data sharing (e.g., APIs, harmonisation, data product specification)

As detailed in section 3.1.2, part of Azores biodiversity monitoring data is accessible through public data portals and the websites of host institutions. However, in some cases, data may be restricted for research purposes or reside in non-public databases. Furthermore, some monitoring programmes share their data in international databases, biodiversity data facilities or other relevant systems/platforms.

3.1.7 Please evaluate the maturity of the implementation of FAIR principles in your country

Evaluation of the maturity of the implementation of FAIR principles in your country, possibly specified for different data sets / platforms. Please describe the current situation. You may also provide information about plans for future development in this field, if relevant. For further reading, see Wilkinson et al. 2016.

In the Azores, the FAIRness of biodiversity monitoring data exhibits notable variations among programmes and organizations. The surveys did not extensively delve into this topic, as only

representatives from different institutions were contacted. Consequently, the participants' depth of knowledge regarding the FAIRness of the data varied.

3.1.8 Examples of data workflows

Azorean biodiversity data can either nationally centralized to competent authorities that report at the member state level to the European Commission (directives), reported to the external coordinating entities (e.g. LIFE projects, Interreg MAC and other programs), or to the regional government itself, for policy support decisions (regional action plans).

For example, DRAAC, is the regional governmental entity responsible for the regional reporting for Species and Habitat Directive article 17. After the regional monitoring scheme data collection, the regional data and reports are submitted to the national authority ICNF, that at its turn, reports at the member state level to the European Commission.

3.2. Data standardisation and case description

3.2.1. Are Darwin Core (DwC) and Ecological Metadata Language (EML) used for biodiversity monitoring data in your country?

- Yes
- No
- To some extent

3.2.2 If yes or to some extent, please describe the situation. How widely and by whom are they used?

Out of the 17 participants on the exercise (questionnaires and interviews), six indicated that they were utilizing DwC (Darwin Core) for some of their monitoring programmes. These participants include Okeanos, DRAAC, GBA-cE3C, CIBIO-Açores, Simbiente, and the Air Centre. Notably, none of the participants reported the use of EML (Ecological Metadata Language) or any other metadata standard.

3.2.3 Does your country use standards other than DwC and EML for biodiversity monitoring data?

- Yes

3.2.3.1 No

3.2.4 If yes, please list these standards, and if possible, provide links to standards

Following the questionnaires and interviews, two additional standards were mentioned. Okeanos research center uses Copernicus in the context of marine biodiversity monitoring programmes. Additionally, the NGO SPEA employs the Access to Biological Collections Data, ABCD standard.

The majority of participants in the interviews demonstrated familiarity with at least some

existing metadata standards. However, when questioned about why they were not using metadata, the responses were unclear and suggested a potential lack of familiarity with the concept.

3.2.5 Case description

FRCT did not implemented a case study to experiment the application of DwC and EML, but there is potential to use the data collected through IAS sub-pilot for future application.

4. ANNEX 1

Biodiversity monitoring programmes in the Azores.

Data collected from surveys and interviews conducted by FRCT team to preselected regional stakeholders, between November 25th and 31st 2023. These stakeholders represent regional governmental entities, enterprises, NGOs, research centres, associations, and local communities participating in regional biodiversity monitoring programs.

Title of Action	Azores beneficiary entity	Reported to	Other regional entities participant (associated-beneficiaries/subcontracted)	Funding mechanism
<u>LIFE</u> IP <u>AZORES</u> <u>NATURA</u>	SRAAC	Funding entity – European Commission	DRAAC DRPM DRP SPEA Oma And 155 more within the framework of SOS Cagarro campaign (see the SOS Cagarro report 2022 for details)	Programme for the environment and Climate Action (LIFE)
<u>LIFE-Beetles</u>	SRAAC	Funding entity – European Commission	DRAAC GBA-cE3c	Programme for the environment and Climate Action (LIFE)
<u>LIFE-Snails</u>	SRAAC	Funding entity – European Commission	DRAAC DRRF GBA-cE3c	Programme for the environment and Climate Action (LIFE)
<u>LIFE Vidalia</u>	SRAAC	Funding entity – European Commission	DRAAC BSA JBF	Programme for the environment and Climate Action (LIFE)
<u>LIFE+ – Terras do Priolo</u>	SPEA	Funding entity – European Commission		Programme for the environment and Climate Action (LIFE)
<u>LIFE+ – Laurissilva sustentável</u>	SPEA			Programme for the environment and Climate Action (LIFE)
Habitats Directive	SRAAC	ICNF		

Title of Action	Azores beneficiary entity	Reported to	Other regional entities participant (associated-beneficiaries/subcontracted)	Funding mechanism
Birds Directive	SRAAC	ICNF		
National Maritime Spatial Planning Plan for the Subdivision of the Azores (PSOEM-Azores)	SRPM		DRPM FRCT UCA (Universidad de Cadiz) Univeridad de las Palmas de Gran Canaria Região Autónoma de Madeira Instituto Español de Oceanografía (IEO) Universidad de Sevilla ECOAqua DRGM DRPM	European Maritime and Fisheries Fund (EMFF)
Marine Strategy / Marine Strategy for the Subdivision of the Azores	SRPM		DRPM	
BALA (Biodiversity of the Azorean Arthropods)	GBA-cE3c	FCT DRCT		
SLAM (Long Term Ecological Study of the Impacts of Climate Change in the natural forest of Azores) (2012-2024)	GBA-cE3c	FCT – Fundação para a Ciência e a Tecnologia DRA – Direção Regional do Ambiente		Portuguese national funds EU Programmes ERASMUS + and EURODYSSÉE
Biodiversity, Soil, Water Monitoring Program, and High	SRADR		DRRF	

Title of Action	Azores beneficiary entity	Reported to	Other regional entities participant (associated-beneficiaries/subcontracted)	Funding mechanism
Conservation Value within the Forest Perimeter and Regional Woodlands of São Miguel Island				
Regional Forest Inventory	SRADR		DRRF	
Hunting Species Monitoring Program in the Azores	SRADR		DRRF	
POPA - Programa de Observação para as Pescas dos Açores	SRMP IMAR	SRMP	DRP	Regional Government of the Azores
MONICO - programa de monitorização de Recursos e Ambientes Costeiros dos Açores	SRMP IMAR-UAc	F- SRMP	DRP DRPM IMAR-UAc Okeanos Marine Protected Areas Group (GAMPA)	
PESCAz - Pescarias Sustentáveis nos Açores	IMAR	SRCT European Commission	FPA IMAR – Uac Okeanos APEDA (Associação de Produtores de Espécies Demersais dos Açores)	MAR2020 - (EMFF) Regional Government of the Azores
<u>COSTA</u>	IMAR SRMP	Funding entity – Marine Turtle Conservation Fund	Oma Okeanos IMAR – Uac DRP	

Title of Action	Azores beneficiary entity	Reported to	Other regional entities participant (associated-beneficiaries/subcontracted)	Funding mechanism
		(MARE) US Fish Wildlife Service (USFWS) Archie Carr Center for Sea Turtle Research (ACCSTR)	DRPM Instituto Politécnico de Leiria (IPL)	
ARQDAÇO - annual demersal species monitoring cruise from the Azores)	SRMP		DRP Okeanos IMAR-UAc	
Programa Nacional de recolha de dados da Pesca (RAA)			DRP	
CONDOR	SRMCT (now DRPM)		DRP DRPM	