



## GPS AZORES Project

<b>Title:</b> Geopolitical framework of the Macaronesia region
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## Contents

ACRONYMS	4
<b>1. Maritime scenario characterisation: Main political, jurisdictional and socio-economic features</b>	<b>5</b>
1.1 Political geography of the region	5
1.1.1 The regional context: Macaronesia	5
1.1.2 Countries and territories	12
1.2 Maritime space	16
1.2.1 Macaronesia in the context of the United Nations Convention of the Law of the Sea 16	
1.2.2 Maritime jurisdictions	19
1.2.3 Maritime borders	21
1.3 The socio-economic context: exploitation and uses of the maritime space	26
1.3.1 Demography	26
1.3.2 Economic development	27
1.3.3 Tourism	29
1.3.1 Fisheries and aquaculture	31
1.3.2 Regional maritime geo-economics	33
1.3.3 Other relevant maritime economic activities	33
<b>2. Current state of international cooperation</b>	<b>35</b>
2.1 Maritime governance and fisheries	35
2.1.1 The Sustainable Fisheries Partnership Agreement	43
2.1.2 The Atlantic ORs in the context of the Common Fishery Policy	45
2.2 General framework for cooperation in Macaronesia: EU policies	46
2.2.1 Regional Development:	48
2.2.2 The Atlantic Action Plan	51
2.2.3 Region and Sub-region of the Marine Strategy Framework Directive	51
2.3 Maritime Spatial Planning in Macaronesia	53
References	56

## ACRONYMS

ACIF-CCIM	Associação Comercial e Industrial do Funchal/Câmara do Comércio e Indústria da Madeira, i.e., the Commercial and Industrial Association of Funchal/Madeira Chamber of Commerce and Industry
AU	African Union
CAM	Cimeira dos Arquipélagos da Macaronésia, i.e, Macaronesian Archipelagos Summit
CF -	Cohesion Fund
CFP	Common Fishery Policy
CMMM	Cluster Marino Marítimo de la Macaronesia, i.e., Marine and Maritime Cluster of Macaronesia
COSME	EU programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (SMEs), running from 2014 to 2020
EAFRD	European Agricultural Fund for Rural Development
EAGF	European Agricultural Guarantee Fund
ECOWAS	Economic Community of West African States
ECS	Extended Continental Shelf
EEZ	Exclusive Economic Zone
EMFF	European Maritime and Fisheries Fund
ERDF	European Regional Development Fund
ESF	European Social Fund
ESIF	European Structural and Investment Funds
ETC	European Territorial Cooperation
EU	European Union
Europe 2020	10-year strategy proposed by the European Commission for the period 2000-2010
Horizon 2020	financial instrument implementing the Europe 2020
ICT	Information and Communication Tecnology
INTERREG	Program financed by the European Regional Development Fund to help regional and local governments across Europe to develop and deliver better policy
LIFE 2014-2020	LIFE (Financial Instrument for the Environment) of the Programme for the Environment and Climate Action for the funding period 2014–2020
MAC 2014-2020	Cooperation Program (INTERREG V-A) Spain-Portugal (Madeira-Azores-Canarias [MAC]) 2014-2020
MSP	Marine/Maritime Spatial Planning
ORs	Outermost Regions
POSEI	Programme of Options Specifically Relating to Remoteness and Insularity
TEN	Trans-European Networks created by the European Union with the stated goals of the creation of an internal market and the reinforcement of economic and social cohesion.
TFEU	Treaty on the Functioning of the European Union
UNCLOS	United Nations Convention on the Law of the Sea
YEI	Young Employment Initiative



## 1. Maritime scenario characterisation: Main political, jurisdictional and socio-economic features

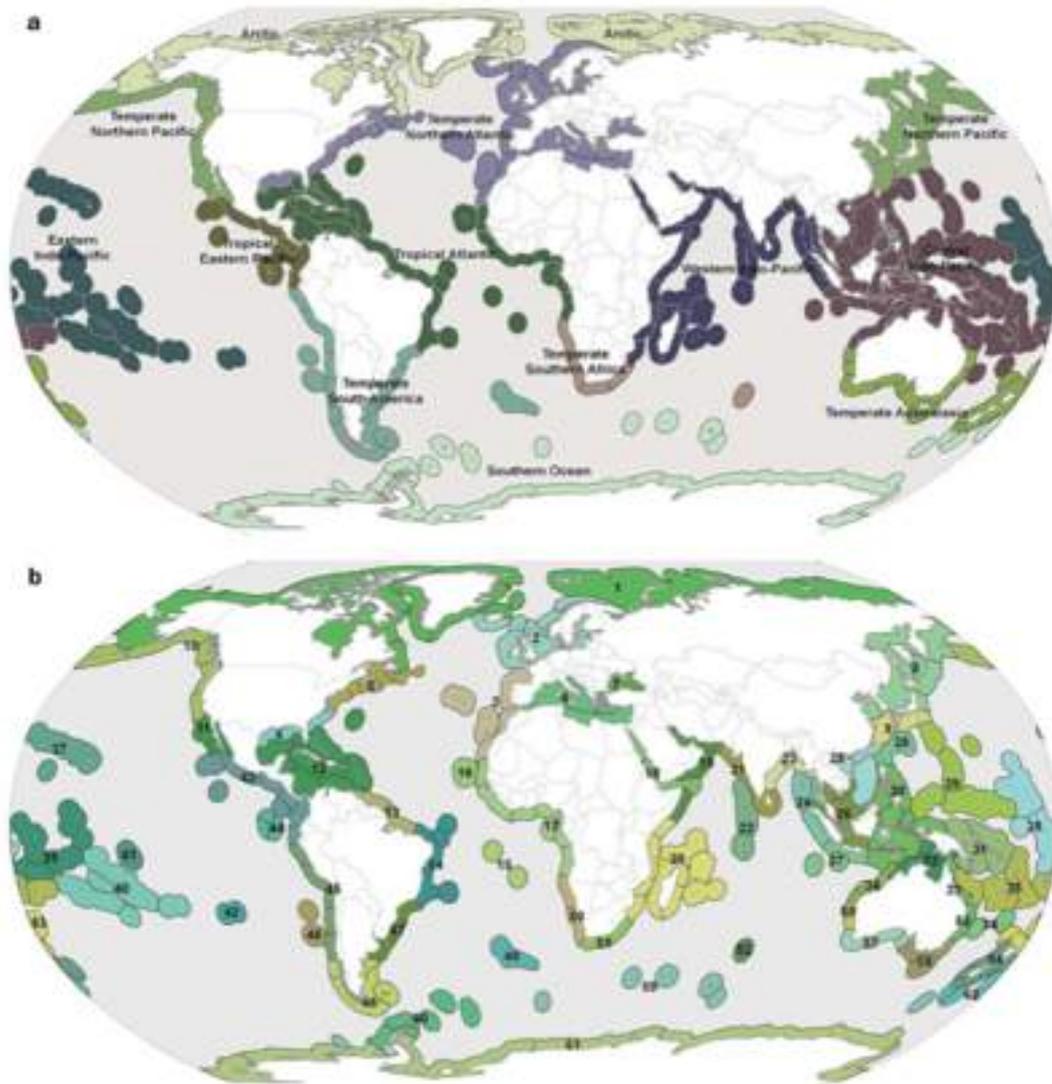
### 1.1 Political geography of the region

The archipelagos of the Azores, Madeira, Selvagen, Canaries and Cape Verde, situated in the North East Atlantic Ocean, are referred to as Macaronesia (Tuya & Haroun 2009). These archipelagos share similar geomorphological traits, all originally volcanic and thought to be the result of several geologic hotspots (Carracedo 2001). Topography and geomorphology varies within the Macaronesia, with an array of landscapes ranging from deserts in arid and rocky areas to humid mountains and evergreen broadleaf forests; from low lying islands to mountainous ones with altitudes reaching over 2000 meters; and from very steep cliff areas to lower plateaus with numerous gorges. The islands also present prominent river valleys in eroded volcanic rocks as well as vast lava flows and active volcanoes (Conde et al. 2009).

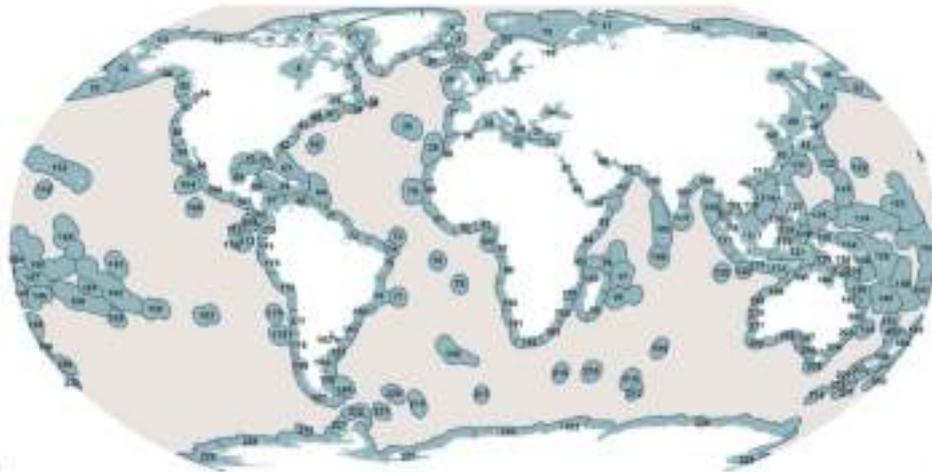
#### 1.1.1 The regional context: Macaronesia

Based on the Greek words *makarios* (blissful) and *nessos* (islands), the origin of the word Macaronesia is attributed to Philip Barker Webb, who around 1835 named the region encompassing the Canaries, Madeira and the Selvagen archipelagos as they shared common elements in their flora and fauna (Fernandez-Palacios et al. 2011). In 1879, Engler added the Azores archipelago in the region, but only in 1961 that the Macaronesian biogeographic region was complete with the addition of Cape Verde by Pierre Dansereau (Fernandez-Palacios et al. 2011). Having a unique biogeography, all native flora and fauna reached the archipelagos via long-distance dispersal from adjacent continental areas (Whittaker & Fernandez-Palacios, 2007) or adjacent archipelagos (Domingues et al., 2008).

Although the marine biotas of the different archipelagos are interconnected via oceanic currents, they belong to different marine provinces (Tuya & Haroun 2009); while the Azores, Madeira and the Canaries belong to the Lusitanian province in the Temperate Northern Atlantic Realm, Cape Verde is within the West African Transition province in the Tropical Atlantic Realm (Spalding et al., 2007).



**Figure 1:** Final biogeographic framework: Realms and provinces. (a) Biogeographic realms with ecoregion boundaries outlined. (b) Provinces with ecoregions outlined.



**Figures 2:** Final biogeographic framework showing ecoregion: Azores Canaries Madeira (29), Realm: Temperate Northern Atlantic, Province: Lusitania; Ecoregion: Cape Verde (79), Realm: Tropical Atlantic, Province: West African Transition. From Spalding et al 2007.

Due to the high isolation and the geographical position, the islands were not affected by the Pleistocene glaciation. Thanks also to the influence of the Atlantic Ocean on the local climate, the Macaronesia region still conserve species that were widespread in Europe during the Tertiary period. Moreover, the islands display a very high level of endemism enriched by a complex process of colonization from the North Atlantic, the Mediterranean Sea and the African continent, that took place through the geological history (Madruga *et al* 2016).

The Canary Islands have a relatively long history of human occupation. Prehistorically, the Guanches, native inhabitants of the Canary Islands, brought domesticated animals and culture plants from the mainland to the islands about 4 000 years ago, while the other archipelagos were uninhabited until the early 15th century. The rich volcanic soils and the favorable climate allowed a rapid expansion of agricultural activities and productions destined to the export. However, the introduction of grazing animals, especially rabbits, has had a particular devastating effect on the ecosystems of the islands, where fragile forest ecosystems have been irreversibly degraded (Condé *et al.* 2009).

Lately, numerous European projects started to better characterize the Macaronesian area involving mostly the European archipelagos. In these reports, Cape Verde is usually just nominated or described very briefly, probably for the lack of existing data. However, some studies of the archipelago are available but, mainly on its biological or biogeographical characterizations (dos Santos Ramalho 2011).

Macaronesia is defined as a biogeographical region rather than a political entity, Rather than an established political entity (Fernandez-Palacios *et al.* 2011). Nevertheless, this region had recently started to gain a geopolitical interest being a meeting point of Europe and its neighboring countries (Programa de cooperación MAC 2014 – 2020).

On December 12<sup>th</sup>, 2010, in Mindelo (Cape Verde), the Summit of the archipelagos of Macaronesia (Cimeira dos Arquipélagos da Macaronésia – CAM) was formed through a joint declaration of the governments of the Republic of Cape Verde, the Kingdom of Spain, the Portuguese Republic and the regional governments of the Azores, Canary Islands and Madeira. The roles of the Summit Presidency and the Joint Technical Commission were assigned to Cape Verde. This first summit underlines the will to develop a relationship of cooperation based on the



geographical proximity, the common past history, the existing relations of friendship and, the vocation for a common Atlantic Identity shared between the four Macaronesian archipelagos. Besides, the summit considered the importance of the archipelagos as a junction point between the European Union and the Economic Community of West African States (ECOWAS) to promote a common approach to global challenges such as maritime, transport and communication policies; energy; human security; as well as the fight against cross-border crime, and other policies on climate change; preservation and protection of the environment; tourism and technology (CAM 2010). Theoretically, the Summit planned to meet every two years with the principle of rotation of the Summit Presidency and the Joint Technical Commission, but the second Summit was not held until 2018 in São Miguel Island (Azores).

At present, in the Macaronesian context Cape Verde participates at various projects as a third country along with Mauritania and Senegal, such as the Program MAC 2014-2020 of the European Program INTERREG (MAC 2014-2020).

Moreover, another example of cooperation between the archipelagos is the creation, in 2013, of the Marine and Maritime Cluster of Macaronesia (Cluster Marino Marítimo de la Macaronesia- CMMM), collaboration among institutional, business and scientific-technological actors of Madeira, Azores and Canary Islands to create synergies in the maritime sector. It was formally established as a joint action program, focused on fostering the economic growth and employment in the maritime sector of the Atlantic Ocean Area of Macaronesia since the three European regions are an important center for marine research. The goal of this cluster is to achieve sustainable development for the archipelagos of Macaronesia in the context of the Atlantic Ocean by 2020; while creating synergies between the legislative and financial instrument at European and Regional level. Formally, Cape Verde joined the management committee of the CMMM in 2014. This was managed by the ACIF-CCIM of Madeira, the Commercial and Industrial Association of Funchal/Madeira Chamber of Commerce and Industry, also involved in the project related with INTERREG V- MAC 2014-2021 (RFI 2014, de França Correia de Jesus V. 2013).

The European Outermost Regions (ORs) are part of the territory of some European Members States despite being remotely detached from the European continent. Nine ORs exist in total (Figure 3): six French locations, four in the Caribbean (Guadeloupe, French Guiana, Martinique, Saint-Martin) and two in the Indian Ocean (Mayotte and Réunion); two Portuguese archipelagos (Azores and Madeira) and one Spanish archipelago (Canary). The last three occur in the Macaronesia and are all autonomous entities (Azevedo 2017).



**Figure 3:** The European Overseas Countries and Territories and Outermost Regions. Source: onlinemaps.com

The ORs have difficult geographical characteristics: remoteness, insularity, small size, difficult topography and climate. Besides, their economy is usually dependent upon agricultural products or natural resources, both elements constraint their prospective development (Azevedo 2017).

The Archipelago of Azores and Madeira are Autonomous Regions of Portugal endowed with political and administrative statutes and self-governing bodies (Assemblea Da Republica 2005). The Spanish archipelago was delineated as well as an autonomous community since the 16 August 1982 with the organic law 10/1982 (Ley Orgánica 4/1996).

Despite the distance from the European Continent, the ORs are intrinsic component of the EU and follow the European laws under the *community acquis*; yet, the EU policies have had to be adapted to the particular context of the ORs.

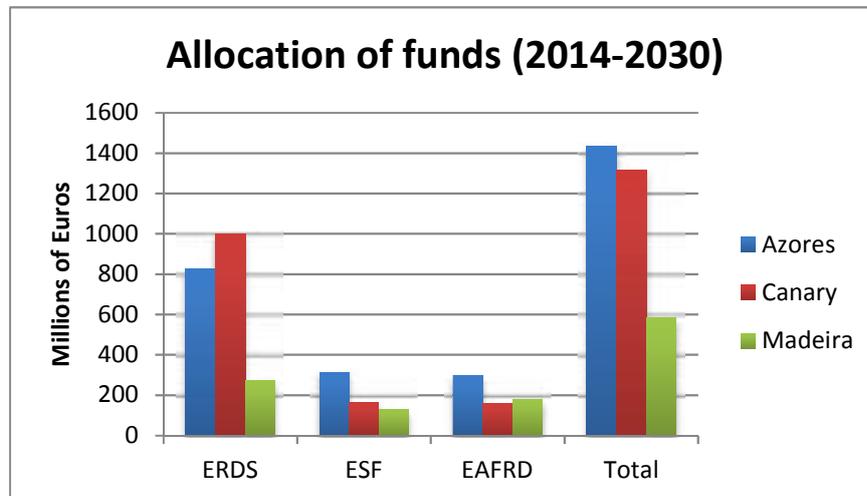
Articles 349 and 355(1) of the Treaty on the Functioning of the European Union (TFEU), accord a special status to the ORs and provide for the adoption of 'specific measures' that enable the Treaties and common policies to be fully implemented (TFEU 2012). Besides, having access to the **CF** (Cohesion Fund) that supports projects related to the transports and environment in countries with a deficit on the gross national income (less than 90% on the EU average per inhabitant), these archipelagos have a specific access to the EU horizontal programs and to the European Structural and Investment Funds (ESIF).

The ESIF are constituted by five different funds that support economic development, invest in job creation and strategies for a sustainable economy and environment (Table 1). They are mainly focused on research and innovation, digital technologies, low-carbon economy, sustainable management of natural resources and small and medium size business and enterprises (EU Commission 2017 (a)).

**Table 1.** 2014 - 2020 European Structural and Investment Funds (ESIF) allocated to all the ORs.

ESIF allocated	Objective	EUR billion in total
<b>ERDF</b> (European Regional Development Fund) including special ORs allocations and <b>ETC</b> (European Territorial Cooperation)	To promote a balanced development in different regions of the EU	5
<b>ESF</b> (European Social Fund) including <b>YEI</b> (Young Employment Initiative)	To promote the creation of jobs in Europe investing on the European human capital	1.9
<b>EAFRD</b> (European Agricultural Fund for Rural Development)	To support the rural areas of the EU to overcome the economic, social and environmental challenges	1.5
<b>POSEI</b> (Programme of Options Specifically Relating to Remoteness and Insularity) funded from the <b>EAGF</b> (European Agricultural Guarantee Fund)	To mitigate the major costs for the supply of essential products for human consumption and for processing and inputs to support the local agricultural production	4.6
<b>EMFF</b> (European Maritime and Fisheries Fund)	To facilitate the transition to a sustainable fishery and support the diversification of the economies in coastal communities	0.3
<b>Total</b>		13.3

Source: European Commission, Fourth Forum of the Outermost Region, 30-31 March 2017 cited by Azevedo F. 2017.



**Figure 4:** Amount allocated from the European Structural and Investment funds in the 2014-2020 period to the archipelagos of the European Macaronesia. Source: Authors from European Commission 2017.

In 2014, the European Parliament, focused on the implementation of Article 349 of the TFEU, approved a resolution on “optimizing the potential of outermost regions by creating synergies between the Structural Funds and other European Union programs”. This resolution underlines the need to maximize the potential of the ORs as a tool for connecting with globalization, innovation, growth, social cohesion, climate change, energy and sustainable management of natural resources and the conservation of biodiversity. It aims to implement policies in order to strengthen the sustainable economy of the ORs and to take new actions using new instrument especially in the fields of energy, transport and ICT (Information and Communication Technology). In addition, the resolution encourages synergies between the Structural Funds and the program of the EU by adopting a macro region approach, with the aim of creating strategies that can take advantage of the full potential of the ORs location.

The synergies are with programs such as the Horizon 2020, LIFE 2014-2020, the Energy Strategy 2020, the Trans-European Networks (TEN; transport, telecommunications, energy), EU Maritime Policy (Common Fishery Policy - CFP and European Maritime and Fishery Funds - EMFF), Common Agricultural Policy and EU External Policy are based on the potential of the resources and the strategic location of the ORs.

There is a growing economic interest for the natural resources of the ORs, which, by definition, are characterized by remoteness and insularity, therefore, they are characterized by a high marine richness of mineral resources in the deep sea, genetic material and biodiversity. Moreover, they are ideal places for the implementation of new strategies for the blue growth, the adaptation to climate change, renewable energy and transports to implement the mobility of the population to and from the ORs, creating opportunities for tourism and for collaboration between the neighbouring countries and Europe through cross-border operational project taking advantage of the geo-strategic position of the ORs in proximity to other non-EU countries.

While the synergies with other programs like the Internal Market, the European Youth Program, COSME, the Progress Microfinance Facility and Creative Europe, and with action to combat poverty and social exclusion, are connected with the social aspects of the ORs, with creation of new jobs and investment in high-quality products to boost the competitiveness of the region and create social inclusion with educational or skills-learning programs.

In the resolution, it is underlined that the ERDF funding are not enough to enable the ORs to achieve the Europe 2020 and Horizon 2020 targets despite the richness of their resources. Therefore, the Commission should consider adjustments to help the ORs to develop programs to get access to other funding (EU Parliament 2014).

### 1.1.2 Countries and territories

Macaronesia gathers the Portuguese autonomous regions of Azores and Madeira (including the Salvagens islands), the Spanish autonomous community of the Canaries and the independent African country of Cape Verde. It encompasses a total of 28 main islands, seven uninhabited ones and more than 100 islets and rocks distributed from 39°43'N (Corvo) and 31°13'W (Flores) in the Azores, to 14°52'N (Brava) and 13°38'W (Lanzarote) in Cape Verde.

The total area of the Portuguese Autonomous Regions of Azores and Madeira, the Spanish Autonomous Community of Canary Islands and the Republic of Cape Verde, is 2,467,622 km<sup>2</sup>, divided into 131 municipalities. The region's area was calculated by summing the land surface, the Exclusive Economic Zone (EEZ) and the Extended Continental Shelf (ECS). The main geographical parameters of the region are described in the table below. (Carvalho & Leitao, 2005).

**Table 2.** Geographic Parameters of the Macaronesia Archipelagos.

Parameters	Azores	Madeira	Canaries	Cape Verde	Macaronesia
Countries/Supernation	Portugal (EU)	Portugal (EU)	Spain (EU)	Cape Verde (AU)	Europe - Africa
Distance from national Capital (km)	1548	1041	1850	-	-
N° of Main Islands	9	2	7	10	28
No of Municipalities	19	11	87	14	
Length of Coastline (km)	943	418	1482	979	
Land Surface (km <sup>2</sup> )	2,322	802	7,447	4,033	14,604
EEZ (km <sup>2</sup> )	938,000*	248,084*	455,328*	796,555	2,437,967
ECS (km <sup>2</sup> )	2,166	1,137	6,366	5,382	15,051
Maximum Elevation (m)	2,351 (Pico)	1,862 (Madeira)	3,718 (Tenerife)	2,829 m (Fogo)	3,718 (Tenerife)
Age of the Oldest Island (My)	8 (Santa Maria)	14 (Portosanto)	21 (Fuerteventura)	28 (Sal)	28 (Sal)
Latitude (°)	37 – 39 N	33 N	27 – 29 N	16 – 24 N	16 – 39 N
Longitude (°)	20 – 31 W	15 – 17 W	13 – 18 W	21 – 26 W	13 – 31 W
Colonization Date	1432 AD	1420 AD	ca. 2,500 BP	1462 AD	-
Human Population	245,283	256,424	2,101,924	491,875	3,095,506

Sources: Azevedo 2017, dos Santos Ramalho 2011, Madruga et al. 2016, SREA 2016, DREM 2016, ISTAC 2016, INECV 2010, GeoHack, SeaAroundUs. European Parliament, 2017; Gabinete de Estudos e Planeamento, 2004; Instituto Nacional de Estatística, 2015; Madruga, et al., 2016; RegioPlus Consulting, n.d.; and SREA, 2015. Corrected \* From Vivero 2007 X

## AZORES:

The Portuguese archipelago of the Azores is the third biggest archipelago with 2,322 km<sup>2</sup> of land surface. It is situated on the Mid Atlantic Ridge and distributed on three plates: the European, the African and the American. The Azores is the most isolated archipelago of the Macaronesia with São Miguel located 1,369 km west of mainland Portugal and Corvo located 1,900 km east of Canada (Newfoundland).

The Autonomous Region of Azores is divided in three groups of islands: the Oriental Group with the biggest island São Miguel (747 km<sup>2</sup>) and, Santa Maria; the Central Group with Pico, Terceira, São Jorge, Faial and Graciosa islands; and the Occidental Group with the two Biosphere Reserve of Flores and Corvo (the smallest island with 17 km<sup>2</sup>). The archipelago is characterized by high average depths (1000-2000 m) between its islands except for Faial and Pico islands that are separated by 20 to 50 m depth (Azevedo, Macedo, & Mendonça, 2016). (Programa de Coperación Madeira-Açores-Canarias (MAC) 2014 – 2020).

**Table 3.** Island Dimensions of the Autonomous Region of Azores

		Area (sq. km.)	Length of Coastline (km.)
Eastern Group	Santa Maria	96.89	78
	São Miguel	744.57	230
Central Group	Terceira	400.27	126
	Graciosa	60.66	44
	São Jorge	243.65	139
	Pico	444.80	153
	Faial	173.06	80
Western Group	Flores	140.96	72
	Corvo	17.11	21

Source: SREA, 2015

## MADEIRA:

Madeira, Portuguese as well, is the smallest archipelago of the European Macaronesia (802 km<sup>2</sup> of land surface). It lies on the African Plate, with Madeira located 660 km west of Morocco. The archipelago has only two main islands, Madeira and Porto Santo, and the uninhabited Desertas Islands (Chão, Deserta Grande e Bugio).

The Selvagen archipelago, also uninhabited, belongs to the Autonomous region of Madeira. It comprises the northeast group that includes the island Selvagem Grande and three small Islets (da Terra, do Mar and Sinho) and the southwest group with the island Selvagem Pequena and eight islets (de Fora, Alto, Comprido, Redondo, Pequeno, Grande, do Sul and do Norte). The islands composing the two subarchipelagos of Selvagen cover an area of 3,6 km<sup>2</sup>. Due to its narrow continental shelf, the surrounding sea is very deep, mostly between 3500-4000 m with a maximum depth of 5400 m (Programa de Coperación Madeira-Açores-Canarias (MAC) 2014 – 2020).

**Table 4.** Island Dimensions of the Autonomous Region of Madeira

	Area (sq. km.)	Length of Coastline (km.)
Madeira	758.5	311
Porto Santo	43.01	107
Source: DREM, 2015		

## THE CANARIES:

The biggest archipelago of Macaronesia is the Canary Islands counting 7,447 km<sup>2</sup> of land surface. With Fuerteventura Island located 96 km west of Western Sahara, the archipelago is the closest to the African continent. Two provinces and seven main islands compose the archipelago; the province of Las Palmas in the east, formed by the islands of Lanzarote, Fuerteventura and Gran Canaria. And the western province of Santa Cruz de Tenerife with the biggest island Tenerife (2034 km<sup>2</sup>), La Gomera, La Palma, and the smallest island El Hierro (269 km<sup>2</sup>). Besides its main islands, the eastern province includes 4 minor ones called The Chinijo islands (La Graciosa, Montaña Clara e Alegranza) located North of Lanzarote Island and Lobos Islet, in the North of Fuerteventura (Madruga et al. 2016).

Steep slopes plunging into more than 1000 m depth define the seafloor bathymetry around the archipelago. The deepest waters are located in the western part, while in the eastern areas the waters do not exceed a depth of 2500 meters (Vivero J. L., 2012). (Programa de Coperación Madeira-Açores-Canarias (MAC) 2014 – 2020).

**Table 5.** Island Dimensions of Canary Islands

		Area (sq. km.)	Length of Coastline (km.)
Province of Santa Cruz de Tenerife	El Hierro	268.71	41.05
	La Gomera	369.76	97.45
	La Palma	708.32	155.55
	Tenerife	2034.38	358
Province of Las Palmas de Gran Canaria	Fuerteventura	1659.74	339.82
	Gran Canaria	1560.10	242.95
	Lanzarote	845.94	247.49

Source: Instituto Canario de Estadística, 2017.

#### CAPE VERDE:

The only territory not included in the European Union is the African Republic of Cape Verde, It is located 570 km off the coasts of Senegal at the same latitude of the promontory Cape Verde from which it took its name (dos Santos Ramalho 2011).

The archipelago is the second largest in the Macaronesia (4,033 km<sup>2</sup> of land surface) and formed by 10 main islands and eight minor islets. The islands are divided in two groups, The Windward (Barlavento) and the Leeward (Sotavento) (Table 6). Rising from a dome-shaped ocean floor, the average depth below sea level is around 3,000 meters (Duarte, 2013)

**Table 6.** Island Dimensions of the Republic of Cabo Verde

		Area (sq. km.)	Length of Coastline (km.)
Leeward	Maio	269	79
	Santiago	991	172
	Fogo	476	82
	Brava	64	43
Windward	Santo Antão	779	134
	São Vicente	227	85
	Santa Luzia	35	33

	São Nicolau	343	138
	Sal	216	91
	Boa Vista	620	122
Source: Madeira, 2015; Instituto Nacional de Estatística, 2015; Duarte, 2013.			

## 1.2 Maritime space

### 1.2.1 Macaronesia in the context of the United Nations Convention of the Law of the Sea

Macaronesia is faced with a number of difficulties such as remoteness, insularity, small size, difficult topography, climate and economic dependence on a few products (European Parliament, 2017; Tavares, 2013).

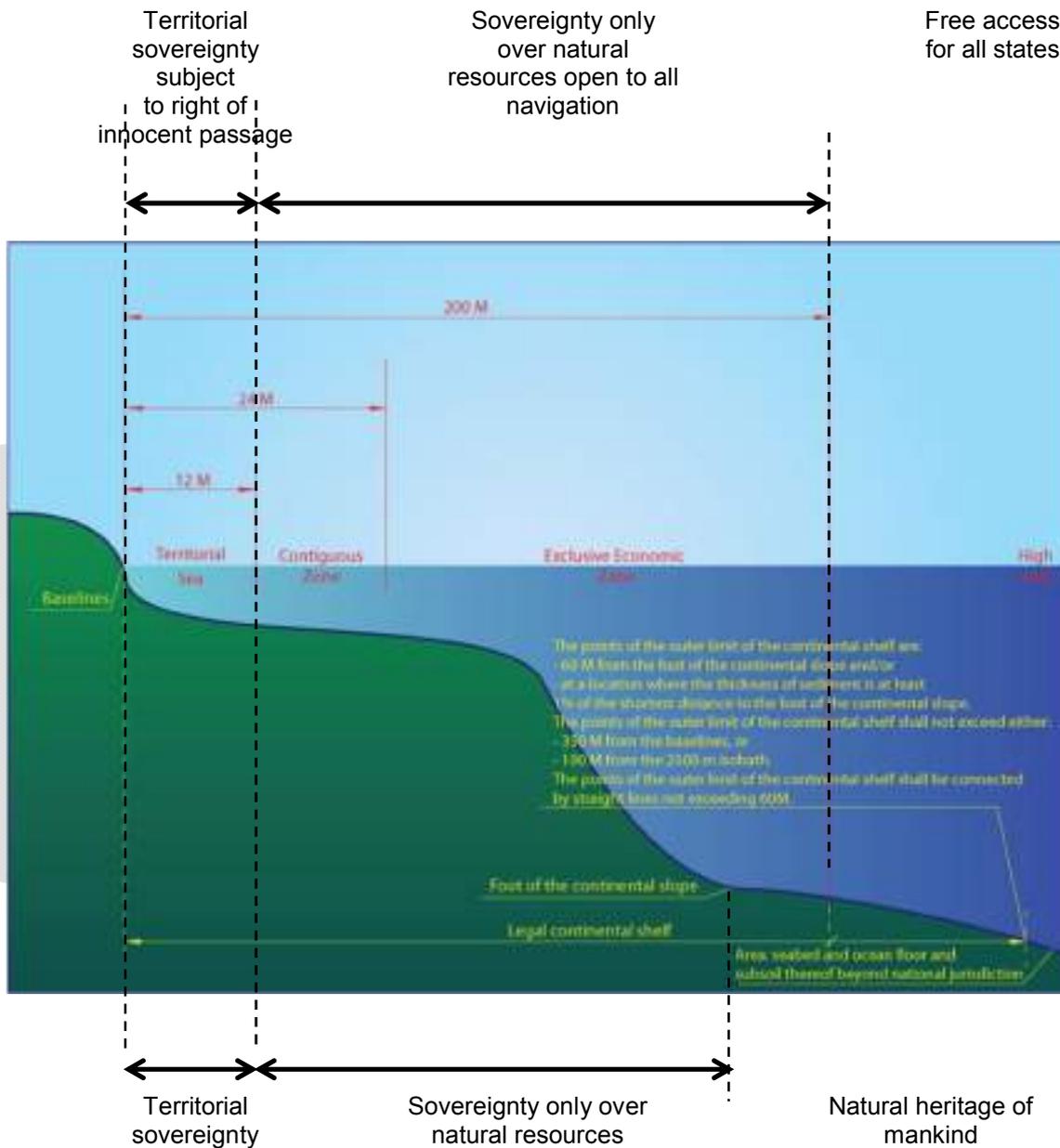
The legal framework for delimiting the Macaronesian archipelagos is established by the United Nations Convention on the Law of the Sea (UNCLOS). According to the convention, islands are natural formations of land surrounded by water that stays above water level at high tide. Thus, they merit to delimit their territorial sea, the limits of their exclusive economic zone and the continental shelf around them in accordance with UNCLOS stipulations, while excluding rocks and islets that cannot sustain human life or economic activity by their own.

The three Macaronesian countries (Cap Verde, Portugal and Spain) are signatories to the UNCLOS, according to the convention they are advised to delimit their maritime space as follow:

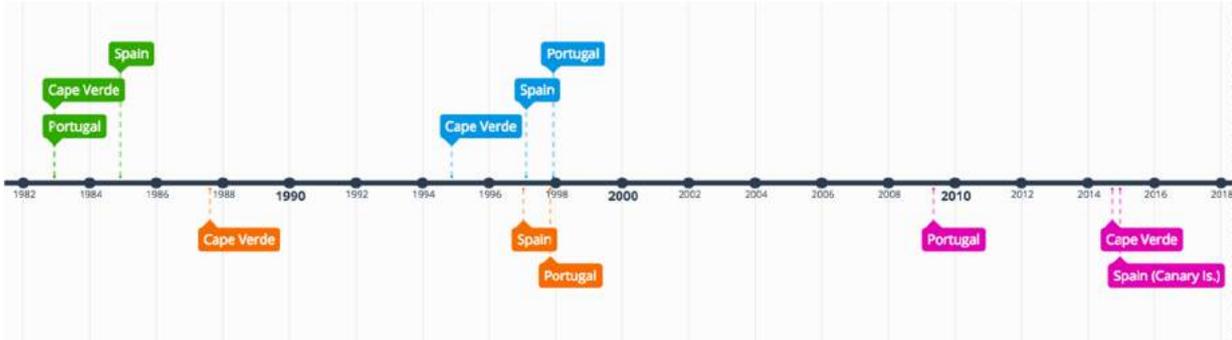
- *The Normal Baseline: To measure the extent of the territorial sea (TS), the normal baseline is considered as the low-water line along the coast as marked on large-scale charts officially recognized by the coastal State.*
- *Straight baselines: In localities where the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity, the drawing of the baseline may use the method of straight baselines joining appropriate points. We note that the baseline is the line from which the extent of the TS is measured.*

#### 1.2.1.1

- Straight archipelagic baselines: joining the outermost points of the outermost islands and drying reefs of the archipelago, with lengths not exceeding 100 nautical miles (except that up to 3 per cent of the total number of baselines enclosing any archipelago may exceed that length, up to a maximum length of 125 nautical miles); It is noteworthy that the straight archipelagic baseline is applied to Cap Verde and cannot apply to the rest of the archipelagos.



**Figure 5:** Maritime zones under UNCLOS. Adapted from: [http://www.un.org/depts/los/clcs\\_new/marinezones.jpg](http://www.un.org/depts/los/clcs_new/marinezones.jpg)



	Portugal	Espanha	Cabo Verde
Signature	10 Dec 1982	4 Dec 1984	10 Dec 1982
Ratification	3 Nov 1997	15 Jan 1997	10 Aug 1987
Entry into Force	3 Dec 1997	14 Feb 1997	16 Nov 1994
Continental Shelf Submission	11 May 2009	17 Dec 2014	25 Sep 2014

**Figure 6:** UNCLOS Signature (in green) and Ratification (in orange). from: <https://treaties.un.org>. Entry into force (in blue); Continental Shelf Submission (in pink) from each country's Submission.

On the other hand, Cape Verde is the only Macaronesian archipelago in which archipelagic waters can be applicable, since it is an archipelagic State, i.e. “constituted wholly by one or more archipelagos and may include other islands,” as defined in Article 46 (UNCLOS, 1982). Therefore, Cape Verde has sovereignty of the waters enclosed by the archipelagic baselines, regardless of their depth or distance from the coast, and sovereignty of the air space over the archipelagic waters, as well as to their bed and subsoil, and the resources contained therein (UNCLOS, 1982).

Spain issued the Law 44/2010 to delimit the maritime areas of the Canary Islands, stating that the perimetral contours would remain equal because of the International Laws. The main difference introduced by this law is that, by naming the waters between islands as “Canarian waters”, the size of the Autonomous Community is extended seven times. This increase brings significant consequences at national level, since it enables the Canary Islands to greatly benefit in the share of funds, which is based on the territory size (Marchante 2011).

As European ORs, the Azores, Madeira and the Canary Islands are covered by specific measures for their development, such as political and administrative autonomy, given that their islands entail extensive areas of sovereignty, and economic control over their vast maritime resources (Vivero J. L., 2012).

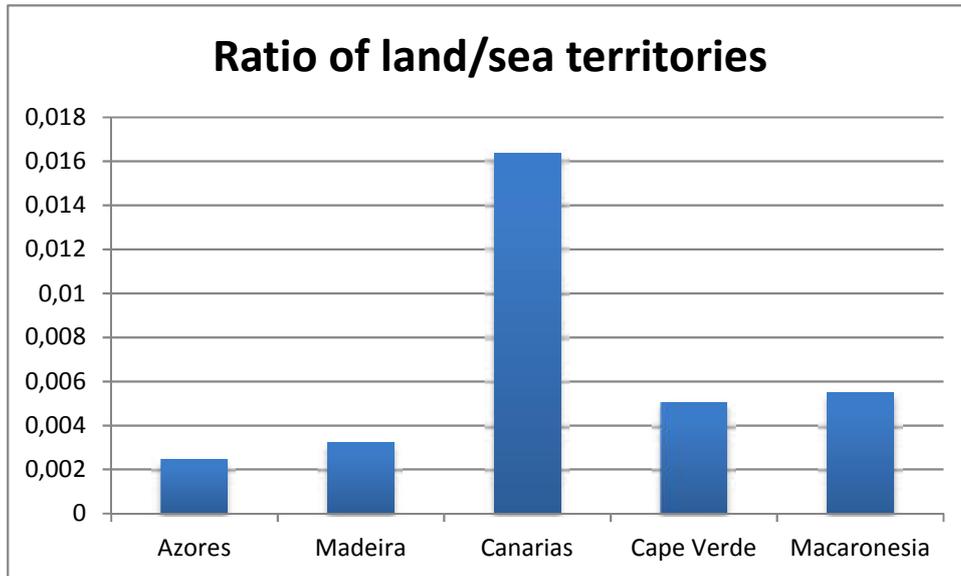
### 1.2.2 Maritime jurisdictions

Macaronesia covers a significant maritime jurisdiction (2,661,986 km<sup>2</sup>) in the North Atlantic, almost 200 times larger its total land territory of 14,6034 km<sup>2</sup>. This represents 77% percent of the all the countries' jurisdiction (3,476,227 km<sup>2</sup>, being 601,206 km<sup>2</sup> of land and 2,875,021 km<sup>2</sup> of EEZ). This is due to the extensive jurisdictional areas generated by the presence of archipelagos in the North Atlantic (Vivero & Mateos, 2007). Table 10 shows that Macaronesia region have jurisdiction over significant maritime areas that far exceed the land area of the States and territories themselves.

**Table 7:** Ratio between Land and Sea surface (EEZ)

	Azores	Madeira	Portuga l	Canarie s	Spain	Cape Verde	Macaro nesia	Portuga l + Spain + Cape Verde
<b>Land Surface (km<sup>2</sup>)</b>	2,322	802	92,391*	7,447	504,782*	4,033	14,604	601,206
<b>EEZ (km<sup>2</sup>)</b>	938,000*	248,084*	1,727,408*	455,328*	1,039,233*	796,555	2,661,986	3,563,196
<b>Total jurisdiction (km<sup>2</sup>)</b>	940,322	248,886	1,819,799	462,775	1,544,015	800,588	2,676,590	4,164,402
<b>Ratio (land/sea)</b>	0.00247548	0.003232776	0.053485338	0.016355243	0.48572553	0.005063053	0.00548613	0.168726615

Source: \* From Vivero 2007



**Figure 7:** Ratio between Land and Sea surface (EEZ). Based on data from table 7.

Portugal established its 12-nautical mile territorial sea and 200-nautical mile Exclusive Economic Zone (EEZ) through the Act No. 33/77 of 28<sup>th</sup> of May 1977 (DOALOS, 2013) before ratifying the UNCLOS in 1997. Since the Azores and Madeira are not eligible as archipelagic states, Portugal applied straight baselines to delimit its internal waters according to Decree-Law No. 495/85 of 29<sup>th</sup> of November 1985. This decree provides the geographic coordinates of the straight baselines for the coast of the continental Portugal (14 baseline segments), Azores (20 baseline segments), and Madeira (14 baseline segments). Moreover, it passed the Decree-Law No. 49-369 of 11<sup>th</sup> of November 1969 enacting special provisions without delay, governing the granting of licences for prospecting, exploration, evaluation and exploitation of these resources beyond a depth of 200 metres (DOALOS, 2013). The jurisdictional rights specified by Portugal in Decree-Law No. 495/85 of 29 November 1985 are detailed in Table 8.

Figure 2 illustrates the extent of Portugal maritime area.

Spain, through Act No. 10/1977 of 4<sup>th</sup> of January 1977, defined a 12-nautical mile territorial sea, 24-nautical mile contiguous zone, 200-nautical mile Exclusive Economic Zone in the Atlantic Ocean from its straight baselines as declared in Royal Decree No. 2510/1977 of 5<sup>th</sup> of August 1977 (DOALOS, 2013). Two non-government bills in 2003 and 2004 defined Canary Islands straight baselines from joining the furthestmost points of the islands that form the archipelago. The waters enclosed by this perimeter is considered as internal waters based on a 2004 bill and is referred to as Canary Islands waters in Law 44/2010 based on the agreement between the PSOE and Coalición Canaria parliamentary groups on 18<sup>th</sup> of October 2010. From the straight baselines, the territorial sea, contiguous zone, Exclusive Economic Zone and continental shelf are measured. It should be noted that the jurisdictional rights listed from Act No. 15/1978 of 20 February 1978 on the EEZ applies to Atlantic coasts only. Maritime jurisdiction of the Canary Islands regional government in the Atlantic have been established in the Canary Islands Statute since 1982 and are limited to coastal management and competences on nautical tourism, smaller ports, protection of marine flora and fauna, and in inland marine waters (waters limited between points) over fisheries and aquaculture, and other uses and activities, such as marine reserves and other environmental protection figures (Vivero J. L., 2012). Jurisdictional rights detailed in Spain’s legislation are summarized in Table 9.

Figure 3 shows the maritime space delimitation of Spanish waters.

Cabo Verdean Law No. 60/IV/92 of 21<sup>st</sup> of December 1992 established a 12-nm territorial sea, 24-nm contiguous zone, 200-nm Exclusive Economic Zone and 200-nautical mile continental shelf, as well as the coordinates of the archipelagic baselines from which they are measured (Office of Ocean and Polar Affairs; 2014 and CIA, 2016). This law also provides a comprehensive detail on jurisdictional rights for



each maritime zone as summarized in Table 7.

Figure 1 shows Cabo Verde's maritime zones.

Azores alone generated a total EEZ of 938,000 km<sup>2</sup> (Figure 4), almost the same as the Spanish EEZ of 1,039,233 km<sup>2</sup>. This constitutes 54% of Portugal's and 35% of the Macaronesia's total EEZ. Cabo Verde covered 796,555 km<sup>2</sup> of EEZ and reflects 30% of Macaronesia. Meanwhile, Madeira has the smallest EEZ (248,084 km<sup>2</sup>) while Canary Islands established an EEZ of 455,328 km<sup>2</sup>, covering 9% and 16% of the Macaronesian EEZ, respectively. Figures 5 and 6 shows the maritime zones in Madeira and Canary Islands, respectively.

Azores takes the largest shelf area in the Macaronesia at 99% while Madeira takes the smallest shelf area with 1137 sq. km. With Portugal's submission for an extended continental shelf limit, Azores shelf area will increase by more than 2095 sq. km. See Table 11 for a summary of maritime jurisdiction by region in Macaronesia.

<b>Table 8. Summary of maritime claims</b>			
	<b>CABO VERDE<sup>1</sup></b>	<b>PORTUGAL<sup>2</sup></b>	<b>SPAIN<sup>3</sup></b>
Baseline	Archipelagic Baseline	Straight Baseline	Straight Baseline
Baseline length (nm.) (Number of segments)	539 (25) (998 km de acordo com o pedido de extensao da plataforma de CV)	(51)	626(29)
Territorial sea (nm.)	12		
Contiguous Zone (nm.)	24		
Exclusive Economic Zone (nm.)	200		
Continental Shelf	Continental margin/200 nm.		
Extended Continental Shelf	With submission		
Source: DOALOS, 2011; Republic of Cape Verde, 1992; Republic of Portugal, 1985; and Government of Spain, 1977			

### 1.2.3 Maritime borders

The delineation of territorial sea, contiguous zone and continental shelf between Portugal and Spain was established in 12<sup>th</sup> of February 1976 (DOALOS, 2013).

No formal disputes have been presented to the existing mediation/negotiation mechanisms. However, from Spain the Savage Islands, a small archipelago 230 km from Madeira and 165 km from Canary Islands, is sometimes presented in public as an unresolved border dispute between Spain and Portugal.

Access to the Savage Islands is difficult because of surrounding reefs and it lacks a fresh water

<sup>1</sup> Cabo Verde Law No. 60/IV/92 of 21<sup>st</sup> of December 1992

<sup>2</sup> Portuguese Act No. 33/77 of 28<sup>th</sup> of May 1977, Decree-Law No. 495/85 of 29<sup>th</sup> of November 1985

<sup>3</sup> Act No. 10/1977 of 4<sup>th</sup> of January 1977, Law 44/2010

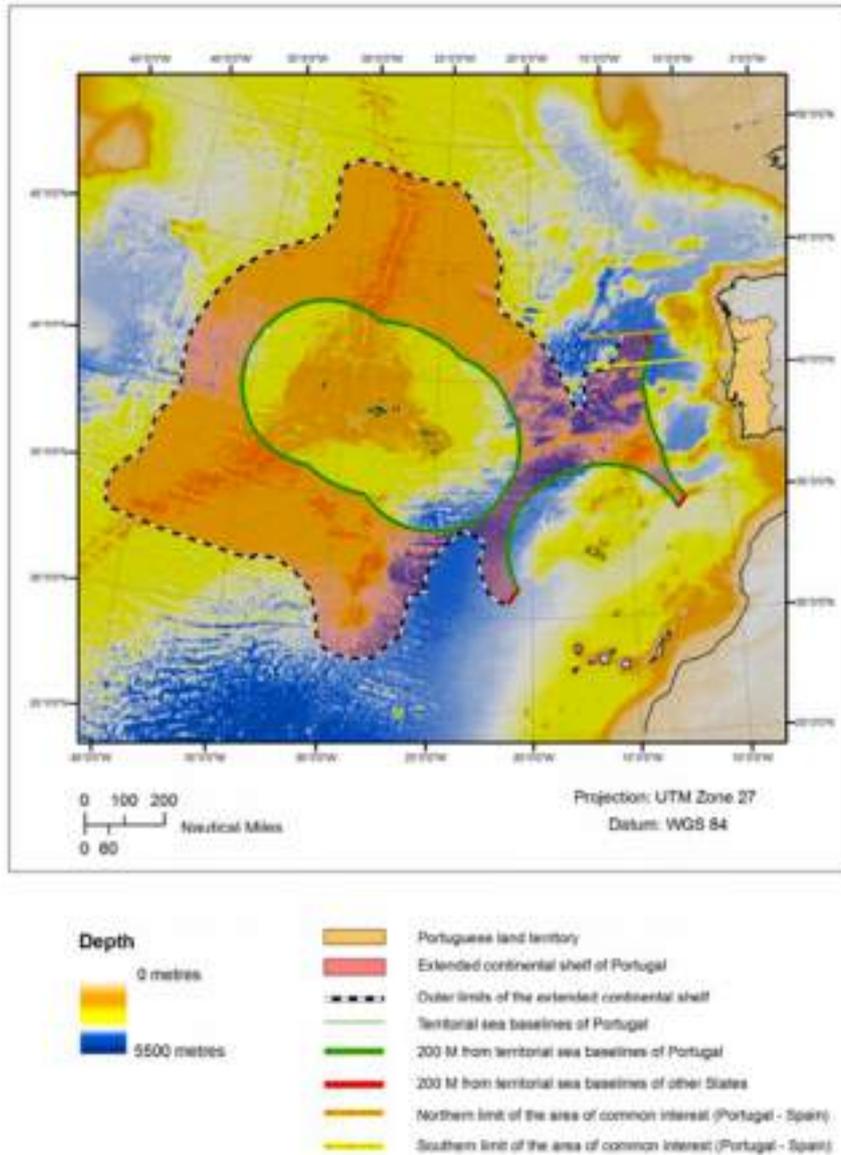


source. It is declared a nature reserve as part of the Madeira Nature Park. The Spanish argument is not only jurisdictional but about the exploitation rights that comes with its classification as either inhabited or uninhabited (Vivero & Mateos, 2007). Spain argues that "Rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf" as stated in UNCLOS Art. 121. From this perspective the delimitation between Madeira and Canary Islands could be established based on the principle of equidistance.

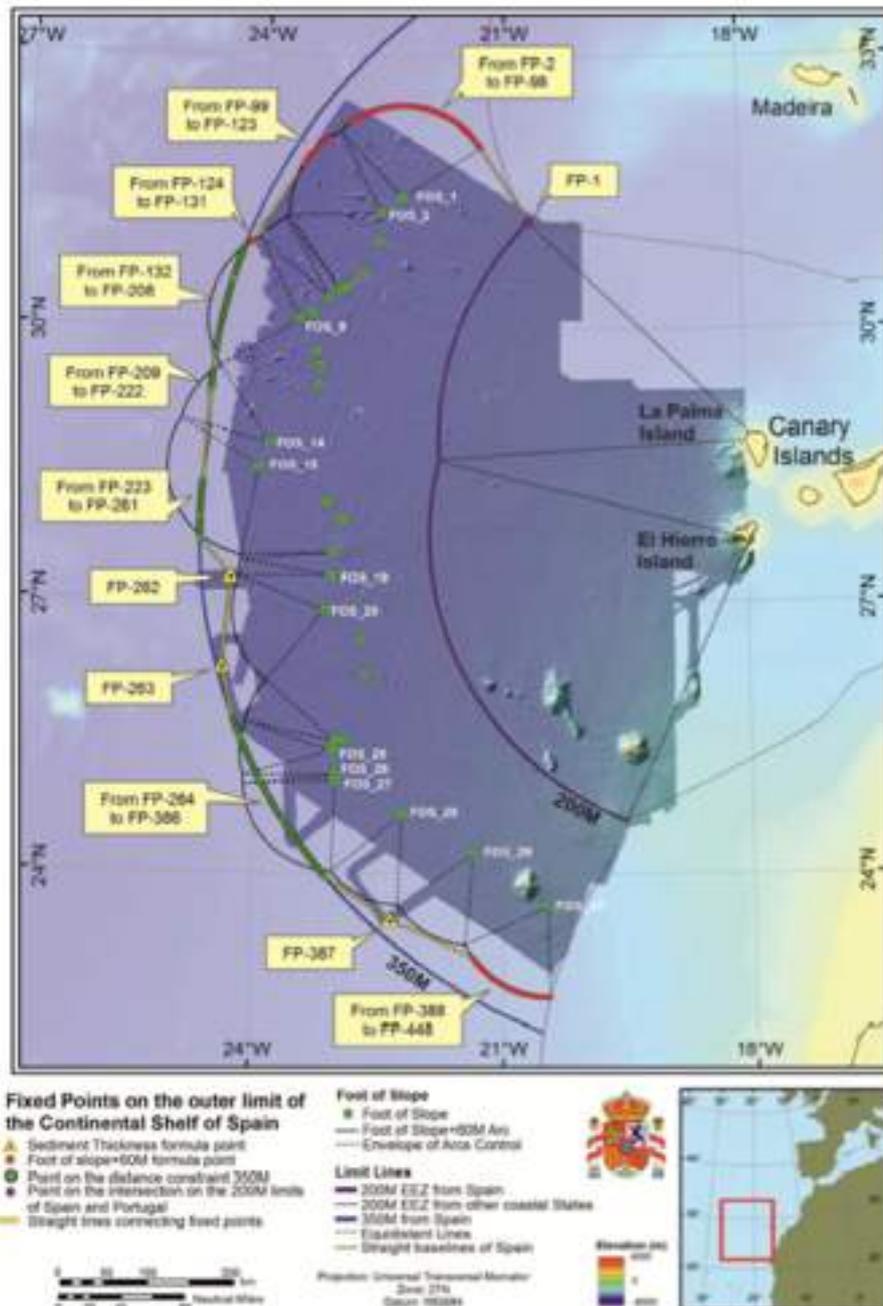
Nevertheless, Portugal keeps these islands inhabited by guards and therefore the right to have EEZ. Among other issues attached to the Savage Islands are the construction of a lighthouse, the administration of airspace (done from the closer Canary Islands), the right to perform military air exercises, and, most importantly, illegal fishing and poaching in the archipelago and its vicinity. Several authors have reflected about this theme, both in Spain and Portugal, but, has stated, no formal dispute exists.

There is a dispute between the Canary Islands and the Kingdom of Morocco over the limits of their EEZ. Morocco claims that the significant distance of Canary from mainland Spain and the proximity of these islands to the African coast, in addition to the fact that the Moroccan continental shelf is wider than the Canarian shelf, justify that the principle of equidistance should not be used and so Morocco should have a wider EEZ. On the other hand, Spain claims that the Canary Islands are highly dependent on the maritime resources and has a high population density, which justify the equidistance delineation of their EEZ (in terms of boundary delimitation with other states, Cabo Verde has established its boundaries with Mauritania and Senegal while it has unresolved boundary with Gambia (Central Intelligence Agency, 2016). The bilateral agreement with Senegal in 1993 delimited the two countries' EEZs and continental shelves while the boundary agreement with Mauritania in 2003 formed "a tripartite frontier point" in Cabo Verde-Senegal-Mauritania boundary (DOALOS 2013; Central Intelligence Agency 2016).

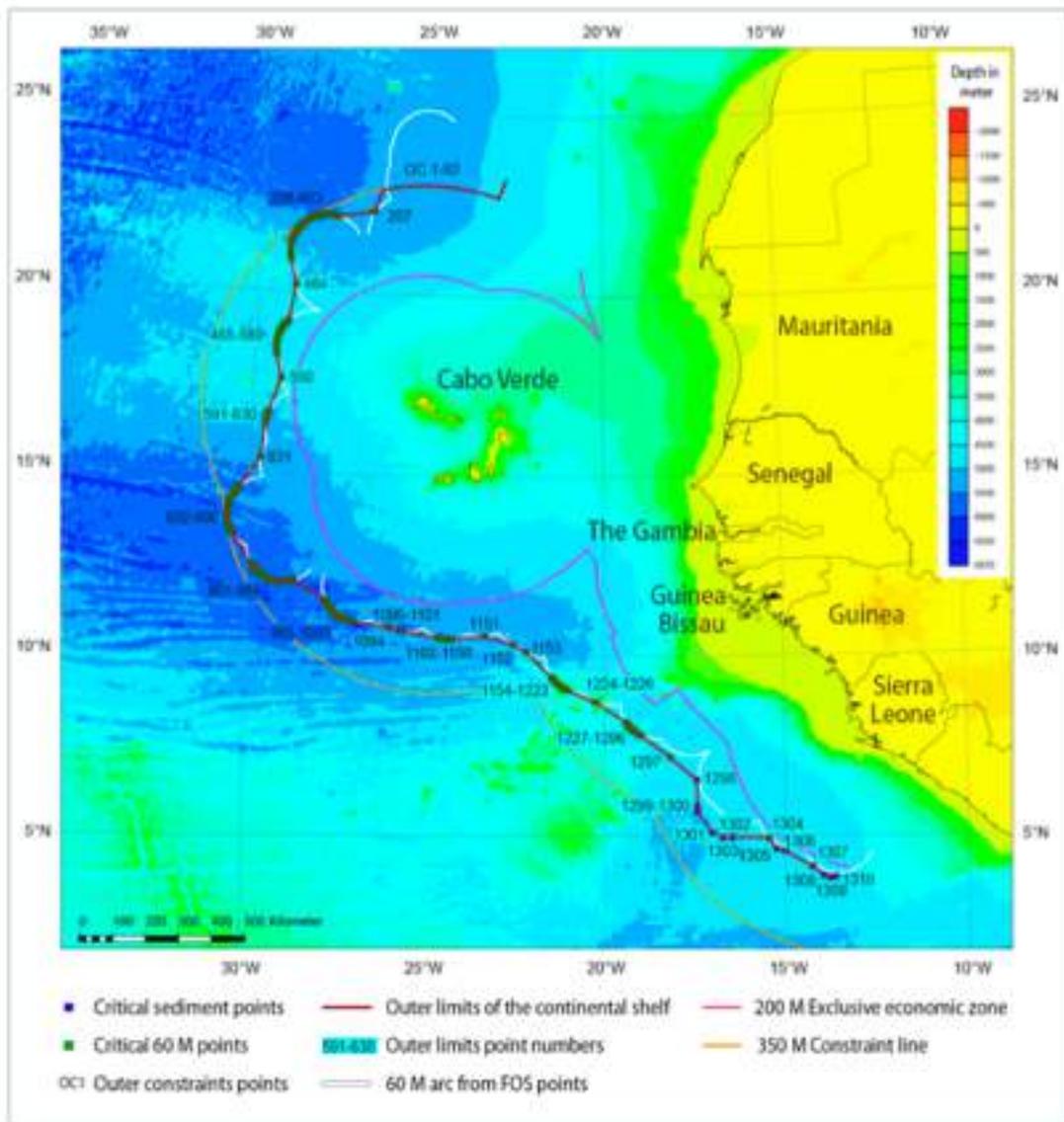
The requests for the extension of the outer limits of each of the Macaronesian archipelagos have been submitted and are under consideration by UNCLOS (three next figures). Portugal and Spain presented objections to each other's submission regarding the Selvagen Islands. Morocco has presented objections against the three submissions, noting that the extended continental shelves of Portugal, Spain and Cape Verde overlap with areas that Morocco wishes to claim as its own extended continental shelf. Nevertheless, the studies supporting the Moroccan claim are still underway and the request has not been submitted yet (based on the communications from Morocco in [http://www.un.org/depts/los/clcs\\_new/commission\\_submissions.htm](http://www.un.org/depts/los/clcs_new/commission_submissions.htm)).



**Figure 9:** Map of the outer limit of the extended continental shelf of Portugal. Source: The executive summary of the Portuguese Submission for Continental Shelf (2009).



**Figure 10:** Overview of the outer limits of the continental shelf of Spain beyond 200 nautical miles in the area to the West of the Canary Islands. Source: The executive summary of the Spanish Submission for Continental Shelf (2014).



**Figure 11:** The outer limits of Cape Verde continental shelf. Source: The executive summary of the Joint Submission of West African Coast for Continental Shelf (2014).

### 1.3 The socio-economic context: exploitation and uses of the maritime space

#### 1.3.1 Demography

The Macaronesia has three million inhabitants and a density of more than 200 persons/km<sup>2</sup> on average. The Canary Islands is the most populated archipelago with a total population of more than two million, it shares the highest population density with Madeira approximating the 300 persons/km<sup>2</sup> making both of them the densest Macaronesian archipelagos. The lowest density is found in the Azores with 106 persons/km<sup>2</sup> and a population approximating the 25 thousand peoples making it the least populated archipelago (Table 9). The population in each archipelago is heterogeneously distributed among the islands and mostly concentrated in the main ones. In the Azores 56% (137,856) of the population is concentrated in the island of São Miguel, similarity, Santiago island hosts more than half of the Cap Verdean population (55%) and Grand Canary island 41%. This high concentration in the main islands creates some social issues, along with immigration and high unemployment rates.

**Table 9.** Socioeconomics of the Macronesian Archipelago (\*2014 data; \*\*2015, annual averages.)

	Total Population	Population Density	GDP/per capita (€)*	Unemployment rate (%)**
Azores	246,353	106	15,111	12.8%
Cape Verde	524.833	130	3,065	12.4%
Canary Islands	2,104,815	283	19,581	29.1%
Madeira	258,686	323	15,710	14.7%

Source: Authors from Regional ecosystem profile–Macaronesian Region, 2016 and Instituto Nacional de Estatística Cabo Verde (INE CV), 2018.

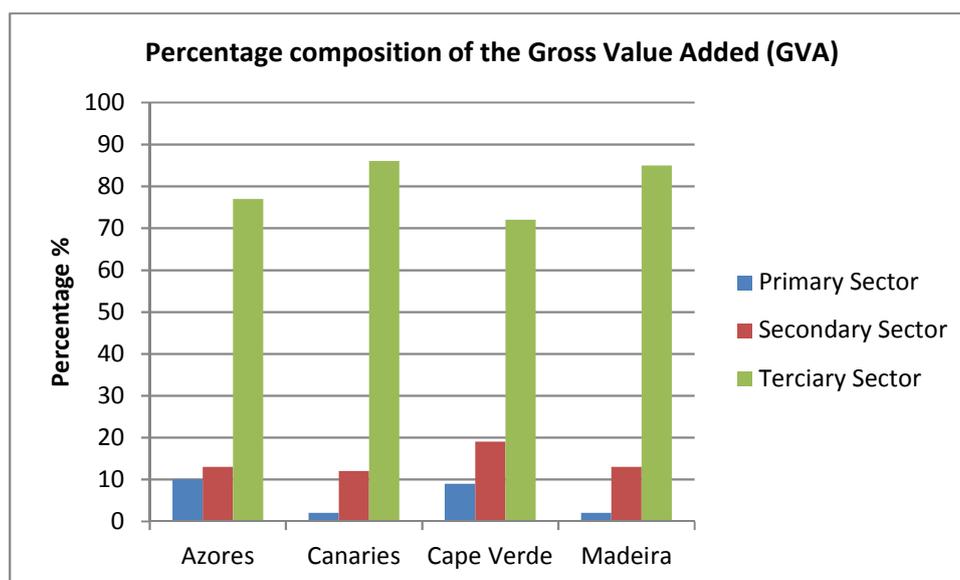
The standard of living in the islands, measured by GDP per capita, varies significantly between the European Macaronesia and Cape Verde. While the three archipelagos (the Azores, Madeira and Canary Islands) record a GDP of over €15,000, Cape Verde records the lowest with €3,000. Despite the relative high GDP per capita in the three archipelagos, it still stays below the EU average of €29,121 (EU Commission, 2018(a)). On the other hand, even though the Cape Verde records the lowest GDP per capita among the archipelagos it presents the lowest unemployment rate, thanks to the government's fiscal stimulus that helped safeguard jobs in 2010-11, making the unemployment rate fell from 13.1% in 2009 to 10.7% in 2010 (African Economic Outlook, 2012). The Canaries, contrarily, record the highest rate in term of unemployment (29.1%) especially among youth (under 25 years old) and women. This rate has shown an improvement during the last years, yet it is still above the national Spanish and EU average of 18.6% and 8.1%, respectively (EU Commission, 2018(a)). Contrariwise, Madeira and Azores witnessed a severe increase in their unemployment rates only in the years following the world economic crisis.

### 1.3.2 Economic development

The Macaronesian economy is service-oriented with the tertiary sector accounting for more than 70% of the total GVA in all archipelagos (Figure 12). The main contributor is the tourism sector especially in the Canaries (more than 13 million visitors in 2016) and Madeira (more than one million visitors in 2016) where the tourism specialization goes back to the end of the 19th century (Matos, 2002). In fact, the sector has been thriving during the last decades in the four archipelagos as a source of income; however, the secondary sector remains generally undeveloped and the primary in regression.

<b>Table 10. Percentage composition of the Gross Value Added (GVA). (2014 data)</b>				
	Primary Sector	Secondary Sector	Tertiary Sector	Total GVA
Azores	10	13	77	100
Canaries	2	12	86	100
Cape Verde	9	19	72	100
Madeira	2	13	85	100

Source: Authors from Regional ecosystem profile–Macaronesian Region, 2016 and Cabo Verde, Statistical Yearbook, 2015



**Figure 12:** Percentage composition of the Gross Value Added (GVA), extracted data from Table 10. Source: Authors from Regional ecosystem profile–Macaronesian Region, 2016 and Cabo Verde, Statistical Yearbook, 2015.

#### 1.3.2.1 The primary Sector

The development of the primary sector is very limited in the Macaronesia due to the rugged topography, the climatic factors, and the water scarcity. These factors reduce the adequate surface for cultivation, the average size of farms and limit their access and mechanization. However, some small-scale subsistence agriculture production is still present in Cape Verde, Madeira, and the Canaries. Contrariwise, in the Azores, the agriculture is one of the mainstays of the economy along with the fisheries contributing with 10% of GVA.

The main agricultural productions in the **Azores** are the livestock and dairy production that use more than 100 000 hectares of the total farmland. Despite the relatively small size farms hosting between 5 and 20 heads, the annual milk production accounts for more than 500 million liters of milk, which is about 25% of the Portuguese milk production (Regional ecosystem profile, 2016). Besides, some crops are cultivated such as pineapples, corn, sugar beet, vine plantations, potatoes, oranges, tobacco, and tea. The forest production is relevant in the Azores with two-thirds of the total forest surface area, which account for 30% of the surface of the archipelago, destined to timber production. Fisheries are also an essential economic activity in the Azores, it brings an average annual revenue of about €35 million euros, with 9 to 19 tons of fish extracted between 2010 and 2014 (Regional ecosystem profile, 2016). The sector, however, is facing problems of overexploitation and limitations under agreements with third countries; therefore aquaculture is progressively being promoted as an alternative. As a result of the high productivity of the primary sector in the Azores, several goods are exported: the dairy products, meat, milk, cheese and butter in addition to the pineapple, tea, tobacco, fish and canned tuna.

In **Madeira**, the primary sector accounts for 2% of the GVA (Table 9). The agriculture sector is based mainly on the production of sugar, wine, and bananas along with some European vegetables. Also, some temperate fruits such as lemons, oranges, guavas, mango, pineapple, and figs are cultivated for export. Fisheries are quite irrelevant in Madeira contrary to what it could be expected; they contribute to only 0.71% of the Madeiran GDP and 0.64% of employment (Vallerani et al., 2017).

Despite being an agricultural society not long ago where the primary sector contribution to the **Canary Islands'** GVA accounted for 30% in the 1960s, nowadays it has barely any weight (2% of GVA in 2014) (Regional ecosystem profile, 2016). Currently, only 10% of the archipelagos surface is farmed with mainly dryland farming (barley, wheat, vines, and potatoes) a small portion of irrigation farming (bananas, tomatoes) destined for the Spanish and European market, and other crops mainly tropical fruits (avocados, pineapples, mangoes) and flowers destined to the export as well. The fisheries in the Canary Islands in 2011 reached a total production of 18 055.45 tonnes, with a total value of 46.99 million euros despite the narrow continental shelf of the islands and the relatively poor waters around the Canaries as compared with the very rich fishing grounds in the upwelling area (Popescu et al, 2013).

Notwithstanding employing nearly 40% of the population, the primary sector in **Cape Verde** contributes only by 9% to the GVA. The arid climate and drought affect extensively the agriculture leading the country to import nearly 90% of its food needs and everything else it consumes. Therefore, the imports account for over 60% of the country's GDP, which makes the country's balance of payments in chronic deficit (African Economic Outlook, 2012). However, a recent trend in the primary sector consisting of the utilization of drip irrigation spawned a vibrant commercially focused production of fruit and vegetables. The fisheries, however, remain small-scale and artisanal despite the country's vast exclusive economic zone and the enormous potential of its marine resources. The major source of imports of Cap Verde is Portugal (60%), in 2011 the imports included food, mineral fuels and lubricants, chemicals and chemical products, as well as machinery and equipment. Most of the country's trade is with the European Union, with 85% of total exports of goods, and over 95% of exports of services (tourism) (African Economic Outlook, 2012).

### 1.3.2.2 *The secondary sector*

The industrial sector in the Macaronesia is dominated by traditional industries, mainly food beverage, and tobacco. It faces difficulties linked to the low internal demand, the remoteness of the archipelagos and their dependence on the external supply that increases the costs of the produces compared with the same manufactured in the mainland. The construction industry is subject to difficulties as well as it is dependence on the evolution of other sectors, and on the substrate shortage. In the **Azores**, the industry is mainly based on the production of dairy products (milk, cheese) and transformation of fisheries products such as tuna. There is little industry in **Madeira**, most of it is related to the production of artisanal goods such as embroideries. However, the recently advanced financial services and the favorable fiscal conditions offered by the archipelago is attracting many international finance companies



which place the Madeira in the global economic and financial map as an interesting place for investment (EU Commission, 2018b). In the **Canary Islands**, the industry and construction sector are responsible for 7.9% and 5% of the total GVA, respectively (EU Commission, 2018a) even though, they do not have a significant impact on the economy of the island. Although the construction sector is showing recent signs of recovery, the economy stays reliant on the service sector especially the one related to the tourism activities. **Cap Verde's** industry is also limited to light manufacturing and accounts for only 3.4% of the GDP. The principal industries are the food industry and the manufacture of furniture and mattresses both accounting for almost half of the industry companies existing in 2013 (45%) (Cabo Verde Statistical Yearbook, 2015). Construction played an essential role in the economy as well and represented 8.4% of GDP in 2017. The main export of Cape Verde is tourism for European markets. Other exports include fuels, lubricants, and fish (Nshimyumuremyi, 2018).

### 1.3.2.3 The tertiary sector

As mentioned before, the structure of the economy in the Macaronesia is much more oriented towards services where tourism has a significant role especially in Madeira and the Canary Islands where the tourism industry started at the end of the 19th century and is still striving.

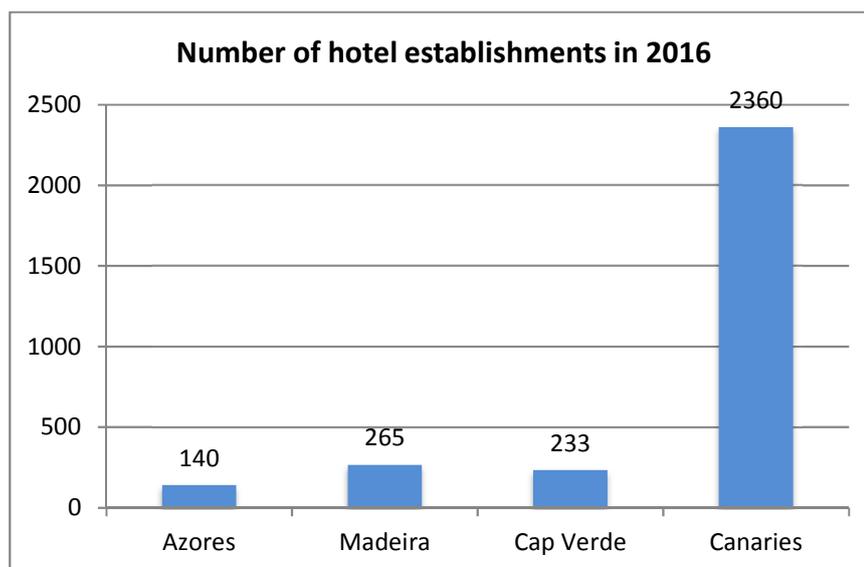
### 1.3.3 Tourism

With about 12 million visitors a year, the tourism in the **Canary Islands** accounts for 86 % of the economy (Table 8) and employs 87% of the population making the archipelago the third -largest Spanish tourist region, only behind Catalonia and the Balearic Islands (Regional ecosystem profile, 2016). The growth of the sector, especially after the 1970's, has promoted construction and services linked to the tourism activity making the Canary Islands offer more than 2000 hotel establishment and a total lodging capacity of 422,505 available beds in 2016 which put the islands's offer way ahead of the three other Macaronesian archipelagos (Eurostat, 2018) (Graph below).

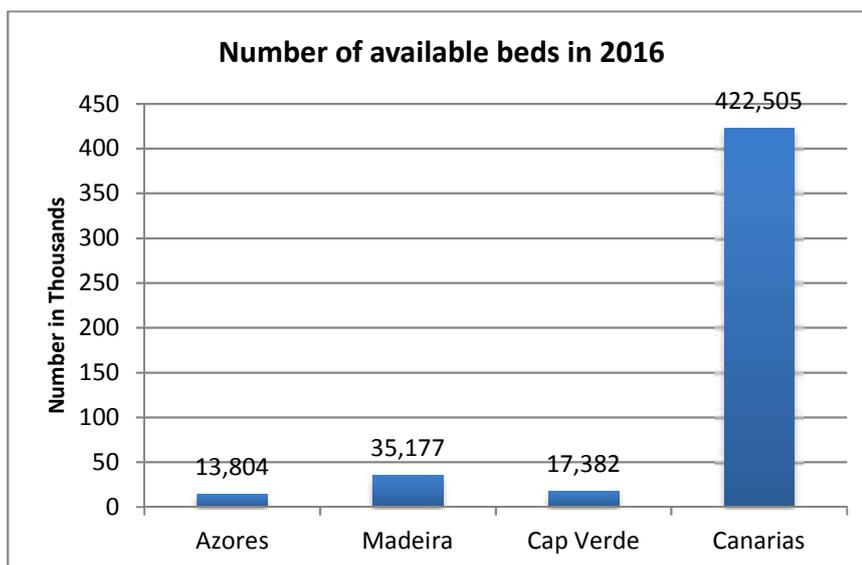
The tourism in **Madeira** also accounts for 85% of the GVA and concentrates 75% of the employed population. The archipelago is a popular touristic destination in Europe known for its natural landscapes and its levadas (walking paths). Madeira's touristic offer focuses on its natural beauty, high-quality hotels, tax breaks' and accessibility. In fact, Madeira is well connected to 30 different main European cities, and since 2009 a low-cost carrier has been operating from it. The archipelago has a good supply of top quality hotels, (12% of hotels offer 5-star facilities) (Almeida, 2010), and according to the 2016 data, there are around 265 hotels available with a total lodging capacity of 35,177 beds, which means that the local industry is ready to accommodate more than one million tourists per year. Most tourism development is concentrated around Funchal (a share of 53% regarding hotels, 66% in terms of rooms and 66% concerning lodging capacity) (Almeida, 2010).

The tourism industry in the **Azores** is far less well developed than those of Madeira or the Canary Islands, but thanks to the Azores' weather, natural landscapes, ecosystems, and biodiversity, tourism has been progressively gaining weight in the archipelago and contributing to its economy, employability, and internationalization. The tourism infrastructure has grown exponentially with the accommodation capacity reaching nearly 14,000 beds in 2016 (Eurostat, 2018) tourist nights spent in touristic accommodation increased from 568,800 in 2011 to over 974,598 in 2016 (Eurostat, 2018). Economically, the total tourism revenue increased from about €48 million in 2011 to over €87 million in 2017 (SREA, 2018). The archipelago is well connected to mainland Europe with several air companies operating in the regional space and offering several direct connections and tour packages to, among others, the Nordic countries, Germany, the UK, Spain, the Netherlands, the USA and Canada (Calado et al.2017) as well, The archipelago has become more accessible thanks to the arrival of low cost companies in 2015.

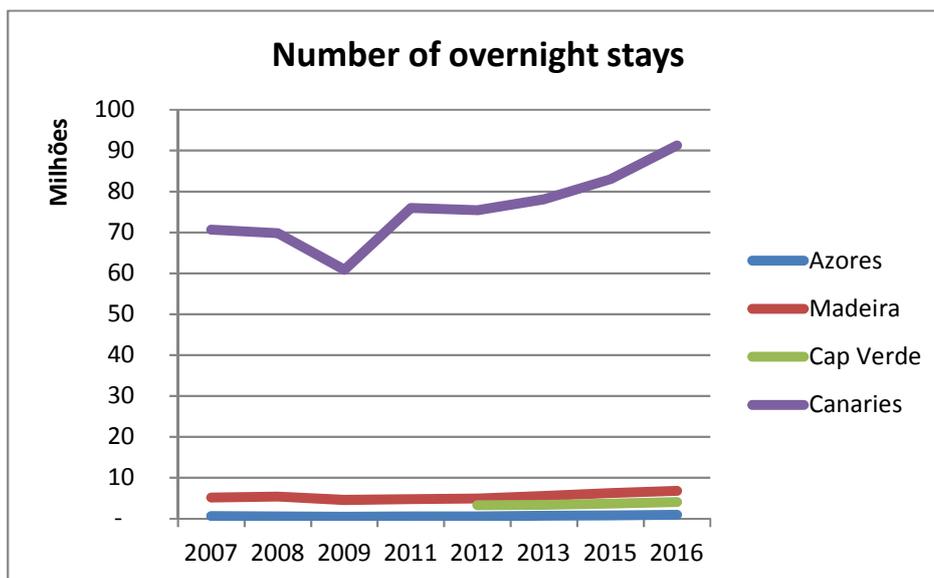
Similarly to the European Macaronesia, the tertiary sector in **Cape Verde** represented about 70% of GDP in 2016 and is dominated by tourism and foreign direct investment in the sector (Nshimyumuremyi, 2018). The tourism in the archipelago has a strong potential thanks to the pleasant climate, the white and black sand beaches, the abundance of submarine life and the rugged and unexplored landscapes. Along with these natural elements, Cape Verde is also notable for the hospitality of its inhabitants, and for their significant cultural diversity, and is associated with democratic stability, which is a facilitator characteristic for tourism development (Lopez-Guzman et al. 2011). However, the tourism in the archipelago did not start until the 1960s after the construction of the International Airport in the Island of Sal and did not grow as a substantial economic activity in the development process of the country until the 1990s (Ribeiro et al. 2013). However, between the 2000 and 2010 the number of tourists in Cape Verde has grown by an average of 11.4% per year which is considered to be higher than the growth rates of world tourism (Ribeiro et al. 2013) and after 2010 the number of tourists doubled from 381.831 to 644.429 tourists in 2016 with overnight stays in the same period increasing from 2.3 to 4 million (INE, 2013 and INE 2017). In 2016 tourism infrastructure counted 233 hotel establishment and a total lodging capacity of 18.382 available beds 46,2% of them concentrated in Sal island (INE, 2017). In 2016 the primary source of inbound tourists to Cape Verde came from the United Kingdom (25.0%), followed by Germany (11.1%), Portugal and France representing the same percentage (10.1%) and the Netherlands (9.7%) (INE, 2017). Presently the archipelago has four international airports that connect it with regular flights to several European, African and American cities. The majority of tourists (60%) visiting the country do it on charter flights mostly to the islands of Sal and Boa Vista, which are the two main tourist centers of the country (Ribeiro et al. 2013). In parallel, cruise tourism is an industry that has been growing at a rapid rate over the past years. It is estimated that, in 2012, approximately 50,000 tourists visited Cape Verde through cruise tourism, the Porto Grande in Mindelo, on the island of St. Vincent, is the main port of the country (Ribeiro et al. 2013). Projections for the service sector in 2018 are optimistic and include a considerable increase in private investment in tourism. However, boosting tourism and generating more substantial economic benefits in Cape Verde will require structural reforms, such as better organization of the local production of goods and services, the creation of a quality certification system for local products, and improvements in inter-island transportation (Nshimyumuremyi, 2018).



**Figure 13:** Number of hotel establishment in the Macaronesian archipelagos in 2016. Source: Eurostat (Azores, Madeira, and the Canary Islands) and INE CV (Cabo Verde).



**Figure 14:** Number of available beds in the Macaronesian archipelagos in 2016. Source: Eurostat (Azores, Madeira, and the Canary Islands) and INE CV (cabo verde).



**Figure 15:** The evolution of the Number of overnight stays in the Macaronesian archipelagos between 2007 and 2016. Source: Eurostat (Azores, Madeira, and the Canary Islands) and INE CV (Cabo Verde).

### 1.3.1 Fisheries and aquaculture

The fishing activity is an ancestral practice in the Macaronesia. Predominantly small scale with the use of reduced size vessels that hardly attain 12m in length. On account of the reduction of outermost regions' fleets and fleet capacities in order to maintain a sustainable balance between capacity and fishing opportunities; the fishing activity has witnessed a decreasing tendency of the number of vessels and fishers.



Catches in the **Azores** focus on the large pelagic species (tuna and swordfish), blue jack mackerel and conger are very important, but crustacean- fishing (spiny lobster and common lobster) and mollusc-fishing (essentially clams) are also very significant. Fishing of deep-water species is multispecific and employs a great variety of gear. Most resources harvested are tuna (39%), blackspot seabream (16%) or blue jack mackerel (12%) (EU Commission, 2017(h)). The Azores fishery is mostly dominated by trends in blackspot seabream (*Pagellus bogaraveo*). The most significant proportion of catches is by vessels less than 12 m long. With an average value of fish auctions being about 13 000 to 15 000 tonnes/year (a volume which relies heavily on tuna), the fishing in the Azores employs around 500 fishers, haulers and support staff on land. The remaining chain generates close to 1 000 jobs, mainly in the processing industry, especially preserves, as well as the fish marketing circuit and maritime and air transport. Although the archipelago accounts for the largest sub-area of Portugal's EEZ, it has a relative lack of biomass and is biologically fragile, especially regarding demersal and deep water species, because it does not have a continental shelf and has high average depths. Only 2.2% of this total area can potentially be used up to a depth of 1 000 meters (EU Commission, 2017(h)). Owing to their characteristics, the vast majority of fish caught in the Azores Region are sold fresh, hindered by difficulties arising from the geographical distance from markets. Processing of fish products is concentrated in units producing preserved tuna, mainly exclusively aimed at exports. Considering the limited demand for fresh fish this industry is the main purchaser of production of the regional tuna fleet, especially the bonito species, Some private investment projects have recently been proposed to process other kinds of fish of less economic potential. Currently there is no marine aquaculture in the Azores, mainly because natural and weather conditions are not favourable.

The fishery in the archipelago of **Madeira** faces the same difficulties as in the Azores, its extremely deep low productive waters and the narrow continental shelf limits available habitats for coastal and demersal species and fishing methods. The main exploited species consist deep-water fish and migratory pelagic fish: mostly tuna (around 42 % of Madeiran landings in value terms), black scabbardfish (almost 46 % of the total value of landings) and, to a much lesser extent, blue jack mackerel. The fishery sector is predominantly artisanal (EU Commission, 2017(h)). As regards aquaculture, it is an activity with a slight economic weight but with a high potential, due to favourable climatic and environmental conditions. In order to meet the need of creating a technical infrastructure for the development of aquaculture, the Regional Government of Madeira created in 2000 the 'Centro de Maricultura' in Calheta. Today, the Centre produces juveniles for active companies, and has a nursery where native species cultivation techniques are being developed.

Marine fishing is an economic activity with a long tradition in the **Canary Islands** though it is mostly artisanal with around 87 % of the fleet is dedicated to artisanal activities with diverse fishing gears, while the remaining boats are trawlers, longlines and purse seiners. The most important catches in the archipelago waters are small pelagic species such as Atlantic chub mackerel (21 % of landings), sardinellas (18 %), skipjack tuna (16 %), parrotfish (5 %), yellow fin tuna (4 %). Concerning the aquaculture, in 2015 aquaculture production totalled 7 648 tonnes, with a value at first sale prices of EUR 34 million (EU Commission, 2017(h)). The activity is almost entirely based on the culture of sea bass and sea bream reared in sea cages. In 2011, the sector started to produce microalgae, Senegalese sole and shrimps. Processing activity consists mainly of processing fresh and frozen fish for distribution, freezing and production of cured and smoked fish. During the 1980s and 1990s, the Canary Islands possessed a large canning industry, which processed fish and shellfish captured by the Canarian fleet in the Canarian-Saharan fishing ground. In the year 2000, Morocco imposed strong access restrictions on the fishing ground, and this led to the closure of the canning industry and a substantial reduction of the fishing fleet. The processing activity has almost disappeared in the archipelago.

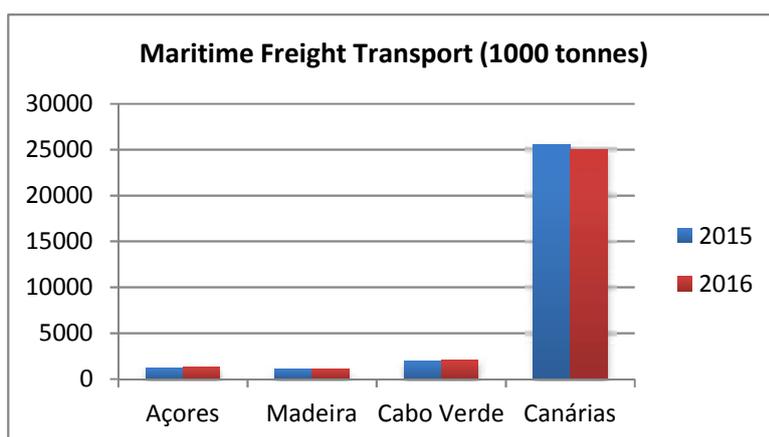
Fishing activity in the republic of **Cape Verde** is an important branch of the economy, and is one of the leading sectors in terms of exports. Activity is mostly based on fish and shellfish of high commercial value, exported fresh, frozen and canned. In 2008, the sector employed 10 500 people (61 % in the harvesting activity). In relative terms, the Cape Verdean processing industry is the most

important in Macaronesia. This constitutes one of the most important sectors of the Cape Verdean economy.

### 1.3.2 Regional maritime geo-economics

Since the nineteenth century, the strategic position of the Macaronesian archipelagos around the mid-point of the Atlantic trading routes made them attractive as way stations between Europe and the rest of the world. They were used for resupplying water, fresh goods and coal to the earlier steamships (Bosa, 2013). The situation has not changed since then, and the islands are still considered as a convergence of shipping lanes where no significant commercial activity is taking place except in the Canary Islands (FIGURE). In fact, the Canaries compared to the other archipelagos, present a high rate of maritime carriage of goods due to its growing population that surpasses the two million and to its extreme dependence on the maritime transportation with mainland Europe to supply goods in order to meet the local demand.

Besides, the Canaries host one of the major shipping ports in Spain, the port of Las Palmas. It is ranked 87th in the top 200 ports worldwide and is an important trans-shipment point on international shipping routes with 433 linked port (Tovar et al., 2015). It stands out in fuel supplies, in passenger traffic and also in container traffic with a total transaction of 1, 057,314 Twenty-foot Equivalent Unit (TEUs) in 2010 (Orive et al., 2016).



**Figure 16:** Maritime freight transport in the Macaronesian archipelagos in 2015 and 2016. Source: Eurostat (Madeira, and the Canary Islands), SREA (Azores) and INE CV (cabo verde).

### 1.3.3 Other relevant maritime economic activities

#### 1.3.3.1 Blue biotechnologies

Other relevant maritime activities in the Macaronesia include the blue biotechnologies in Madeira and the Canary islands. In Madeira in conjunction with the University of Madeira a micro company is investing in the blue biotechnologies market by producing natural extracts obtained from marine macroalgae. In Porto Santo Island a pilot project was launched, in 2006 consisting of a biofuel production plant using microalgae. The project however did not work as envisaged as there were problems using this technology at industrial levels but the plant still exists and works at a micro level sector (EU Commission, 2017 (h)). In the Canary Islands a production of microalgae is taking place as a branch of the aquaculture.



### 1.3.3.2 Marine renewable energies

In Pico Island, Azores exists one of the first wave energy plants in the world, OWC type (oscillating water column connected with a Wells turbine). The plant is a pilot project and has been designed by the Instituto Superior Técnico in collaboration with the Queen's University of Belfast and the University College Cork. Technical problems cropping up so far and the marginal volumes of energy produced do not allow wave energy to be considered as a promising activity for the short to medium term.

In the Canary Islands, the regional government is requesting from Spain the recognition of competences in relation to marine renewable energies. The regional government is devoting funds to the Plataforma Oceanográfica de Canarias (PLOCAN), which has great potential to become a world reference as a platform for the development and testing of marine technologies. The natural oceanographic conditions of the archipelago provide the opportunity for transforming the Canary Islands into an international laboratory for the testing of new blue energy developments (EU Commission, 2017(h)).

### 1.3.3.3 Extraction of aggregates

The extraction of aggregates is conducted only in the Azores and Madeira. In Azores the activity consists of sand extraction, while in Madeira the activity comprises gravel and sand extraction. In both cases activity has limited economic weight, and employs few people. This activity does not offer good prospects due to the decline of demand and high investments required to carry out the activity (EU Commission, 2017(h)).

### 1.3.3.4 Desalinisation

This activity is carried out almost entirely in the Canary Islands. There is one plant in Madeira, which seems sufficient to satisfy local demand. The activity is being developed in Cape Verde. No official data are available on the number of plants currently operated in the Cape Verdean archipelago though. Development of the activity is receiving international support. In turn, the Canary Islands are among the world leaders in the desalination of seawater. The large sector comprises 320 plants. This activity has been one of the factors allowing tourism development in the Spanish archipelago. This activity consumes large amounts of electricity produced from fossil fuels. This condition substantially increases costs, producing an environmental impact. Experiences are ongoing in the Canarian archipelago to use on-land wind energy in desalination plants (EU Commission, 2017 (h)).

### 1.3.3.5 Shipbuilding and repair

Shipbuilding is a marginal activity in the Macaronesia sea basin. In the Azores, the activity consists of the construction of fishing vessels. In the Canary Islands there is no steel vessel building activity. Wooden vessels are still constructed, but the activity is in decline. Ship repair activity is also in decline in Azores, and consists of the repair of fishing vessels and recreational boats. The activity, especially ship repairs, could represent an important development possibility, considering the potential increase of yachting and sailing boats calling for services in Azores. Ship repair activity in Madeira is concentrated in Funchal, with a number of companies involved in the repair of engines, electric and electronic parts and mechanical repairs. Its development is linked to the increase in yachts and sailing boats calling in at the islands and to the management of spaces in port areas. Ship repairs in the Canary Islands have declined, with the problem of access to third-country-fishing grounds. Revision, repair and maintenance of oil platforms of the Gulf of Guinea carried out by shipyards in the Canary Islands have contributed to the reactivation of shipyard activity during the last five years, although the drop in oil barrel prices has slowed down the growth of the sector. In turn, the growth of nautical activities offers opportunities for the reactivation of the sector, e.g. fitting out & repair of nautical craft (EU Commission, 2017 (h)).



## 2. Current state of international cooperation

### 2.1 Maritime governance and fisheries

The area of Macaronesia extends from the North-East Atlantic to the Central-East Atlantic Ocean. In this area, there are different Regional Fishery Bodies (RFBs) that with the role of intergovernmental entities, mediate the cooperation between the States in the management of fishery of the region. Some RFBs have a binding regulation within their member states. They coordinate the conservation and management measures on the fishing activity of their member states and they are referred as Regional Fisheries Management Organisations or Arrangement (RFMO/ As).

The RFBs can have an area of competence that include the national jurisdiction while others are established to regulates the activities in the Areas Beyond National Jurisdiction (ABNJ). Also, they can be specific for some species or stocks (tuna or tuna-like species, or deep-sea stocks) or they can have a general framework on the totality of the fisheries activity, including the enforcement of rules for the Illegal, Unreported and Unregulated (IUU) fisheries through the Port State Control (NEAFC 2011, FAO 2017(b)).

The RFBs that don't have a mandate to manage the fisheries, play a supporting role providing scientific advises for the regional fishery management. These scientific bodies, such as the International Council for the Exploration of the Sea (ICES), have direct contacts with RFMO to provide scientific information and council.

In the North-East Atlantic area, for example, ICES provides information about the fish stocks, through a mandate, to the North East Atlantic Fishery Commission (NEAFC), the RFMO of this Area.

Many of the RFBs were established within the constitutional framework of FAO while others joined later. There are different types of RFBs, two have being set within the FAO Constitution:

- RFBs with Management Mandate: established in accordance with Article XIV of the FAO Constitution (APFIC, GFCM, IOTC, RECOFI and CACFish);
- RFBs with Advisory Mandate: established in accordance with Article VI of the FAO Constitution (CECAF, CIFAA, COPESCAALC, EIFAAC, SWIOFC, and WECAFC);

and two outside the FAO constitutional framework:

- RFBs with Depository Function: established outside the FAO constitutional framework (ICCAT, NACA, COMHAFAT, LVFO, SEAFO and SIOFA).
- With functions as RFBs in global and regional fisheries governance. FAO closely monitor these RFBs due to their key role (CCAMLR, CCSBT, NAFO, NEAFC (there are 2 version of it. In one of the text of FAO Neafc is outside of the constitutional framework (text from 2013). In another table is positioned under the XIV Article.), WCPFC and IATTC).

Nevertheless, FAO cooperates with all the RFBs through the support to the Regional Fishery Body Secretariats Network (RSN) providing also secretariat services for the RFBs under Article XIV, and through technical assistance in support to regions and countries (FAO 2017 (a-b)).

The Archipelagos of Macaronesia are distributed in two FAO Major Fishing Areas:

- The 27: Atlantic, North East (Azores);
- The 34: Atlantic, Eastern Central (Canarias, Madeira and Cape Verde).

In **Table 2** are shown the Subarea and the Division related with the archipelagos and the position with the main coordinates of the related areas.

**Table 11.** FAO Areas of the Archipelagos in Macaronesia.

Archipelago	Subarea	Division	Latitude	Longitude
Azores	Azores Ground and Northeast Atlantic South (27.10)	Azores Ground NEAFC Regulatory Area 27.10. a1	South of 43°N to 36° N	From 18°W to 42°W
		Azores Ground not-NEAFC Regulatory Area 27.10. a2	Remaining parts of Subarea 27.10 south of 43°N not within NEAFC area I (Subdivision 27.10.a.1)	
Canaries and Madeira	Northern Coastal (34.1)	34.1.2	36°N – 26°N Line southwesterly direction from 29° to 26°N	20° W – 13°W Line southwesterly direction from 13°W to 16°N
Cape Verde	Southern Coastal (34.3)	34.3.2	20° N – 10° N	20°W – 8° W

**Source:** © FAO 1990-2017 (a- b).

The Table below (Table 12) shows which are the Regional Fisheries Bodies and the International Commission present in Macaronesia. To simplify the understanding of the location of these organisms, here are divided using the FAO area present in the North East and Central Atlantic Ocean. In Area 27 the RFMO NEAFC and the International Commission OSPAR works complementary on distinct aspects of the conservation and management of the marine ecosystem, with ICES as scientific support. ICCAT is the only Fishery Body that is present in the whole Atlantic, therefore it is in common to both FAO Areas of interest.

While in the FAO Area 34, the situation is a bit more complex: The RFB CECAF is in common to the whole area and to the archipelago of the Canaries, Madeira and Cape Verde. While the SFRC is the RFB that manage the EEZ of the African Countries in Macaronesia including Cape Verde. At last, the international Convention of Abidjan covers the coastal area of the African countries facing the Central and the South Atlantic. In the next paragraphs, there are more complete explanations of the role of each of the RFBs and Conventions illustrated in the Table.

**Table 12.** RFBs and Commissions on the Macaronesia Region. **ICES** (International Council of the Exploration of the Sea, **NEAFC** (North East Atlantic Fishery Commission), **OSPAR** (Convention for the Protection of the Marine Environment of the North-East Atlantic), **CECAF** (Central East Atlantic Fishery Commission), **SRFC** (Sub Regional Fishery Commission), **Abidjan Convention**, **ICCAT** (International Council for the Conservation of the Atlantic Tuna).

FAO Area	Archipelagos	Regional Bodies or Commissions		Function	Secretariat
27	Azores	ICES (1964)		Scientific Advisor for NEAFC	Copenhagen, Denmark
		NEAFC (1980)		RFMO	London, United Kingdom
		OSPAR (1992)		International Convention	London, United Kingdom
34	Canaries	SRFC (1985)	CECAF (1967)	RFB	Accra, Ghana
	Cape Verde			RFB	Dakar, Senegal
	Madeira			Depository Function	Madrid, Spain
				Abidjan Convention (1981)	International Convention

Source: FAO, 2017. <http://www.fao.org/fishery/rfb/search/en>

The **International Council for the Conservation of Atlantic Tuna (ICCAT)** is the only Regional Fishery Body that is common between the different archipelagos and the two FAO areas. In fact, the regulatory Area of ICCAT comprises the whole Atlantic Ocean including the adjacent sea such as the Mediterranean, the Baltic and the Black Sea (Figure 17). The conservation of highly-migratory species such as tuna and swordfish is handled internationally through arrangement within multiple countries, because of the wide nature of the distribution of these stocks. Indeed, the ICCAT commission has 51 contracting parties, all of which have an interest in the commerce of the Atlantic tuna and tuna-like stocks. “*The Commission may be joined by any government that is a member of the United Nations (UN), any specialized UN agency, or any inter-governmental economic integration organization constituted by States that have transferred to it competence over the matters governed by the ICCAT Convention*”. The arrangement between the parties are made to share the information about scientific study that utilize different type of data source (fishery-dependent and not) to investigate about the fish stocks of interest, listed in the manual and in the website along with the different researches and publication (ICCAT 2006-2016).

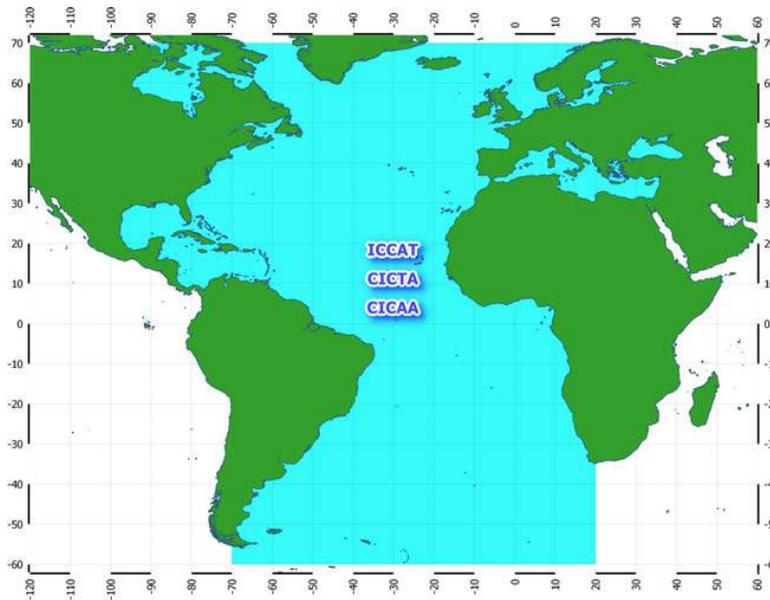


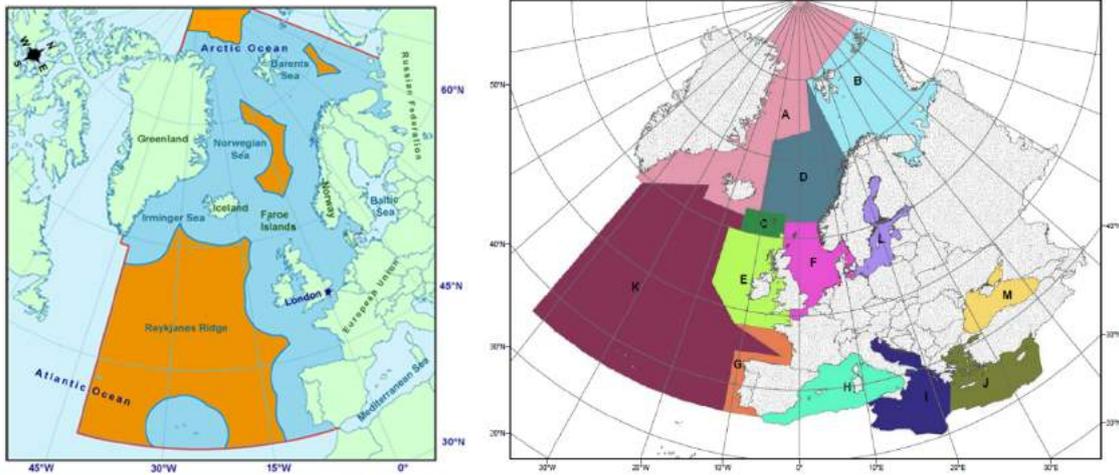
Figure 17: ICCAT Convention Area. Source: ICCAT SECRETARIAT 2016.

The **North East Atlantic Fishery Commission (NEAFC)**, the **Convention for the Protection of the Marine Environment of the North-East Atlantic** known as **OSPAR Convention** and the **International Council of the Exploration of the Sea (ICES)** are respectively the Regional Fishery Management Organisation, an International Convention and their Scientific Advisor that operate in the **FAO Area 27**. The **NEAFC** is the RFMO of the North East Atlantic Ocean. The scope of the area of management goes from the south of Greenland to the south of Portugal, and it has eight contracting parties: the European Union, Denmark (in respect of the Faroe Island and Greenland), Iceland, Norway and the Russian Federation.

NEAFC manage different type of fish stock in the area, excluding the highly-migratory species, measuring and controlling that the rules delineated between the contracting parties are respected. Also, it is involved in the control of the Illegal, Unreported and Unregulated (IUU) Fishing with the Port-States Control program.

The final objective of NEAFC is to “ensure the long-term conservation and optimum utilisation of the fishery resources in the Convention Area, providing sustainable economic, environmental and social benefits”. All the recommendation from NEAFC are based on the best scientific evidence available or, in case of lack of information, they follow the precautionary approach, they always take into account the impact of fisheries on the marine ecosystem and on other species to address conservation and management measure of the living marine resources and marine ecosystems.

The Area of Competence of NEAFC include the EEZ of the appertaining countries and the High Sea, and only the last is defined as Regulatory Area (Figure 18). Therefore, The Archipelago of Azores are included in the Area of Competence of NEAFC, but the recommendation of NEAFC concern the fishery activities conducted beyond the areas under jurisdiction of Contracting Parties unless requested otherwise from a Contracting Party, in this case NEAFC may give advice concerning fisheries within an area under national jurisdiction. Moreover, NEAFC can give recommendation that apply to management and conservation of stocks that occur both within and outside national jurisdiction, and in this case the Contracting Parties shall promote the coordination of such recommendations, measures and decisions (NEAFC Convention 2004).



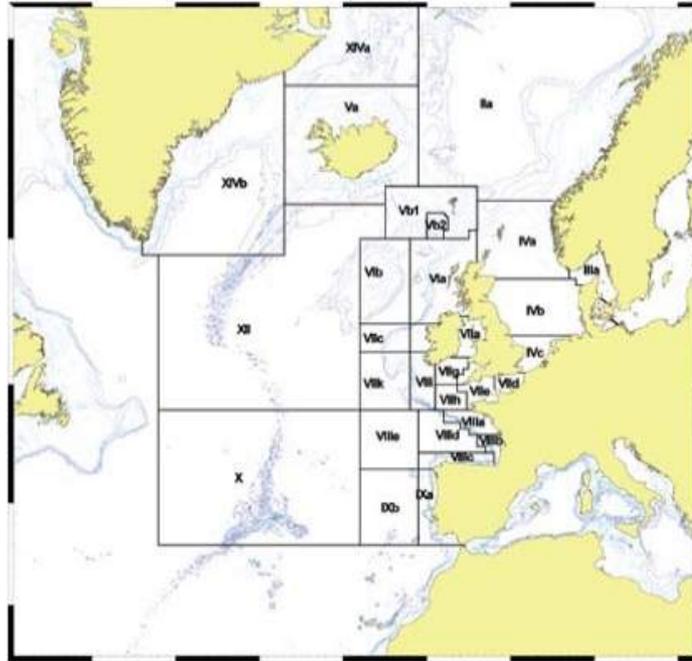
**Figure 18:** NEAFC regulatory area and Ecoregion based on ICES Advice ACFM/ACE report (2004) ICES Convention area (FAO area 27) includes regions A-G, L Zones H-J, M are outside the ICES area. Source: NEAFC 2017. Retrieved from: © North East Atlantic Fisheries Commission (NEAFC) 2011, ICES 2004.

The **Convention for the Protection of the Marine Environment of the North-East Atlantic** known as **OSPAR Convention** works complementary with the NEAFC on a sustainable use of the marine ecosystem and its resources. The OSPAR Convention has 16 Contracting Parties (Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom, together with the European Union) and the implementation of the Convention and its strategies are applied by the adoption of decision, which are legally binding, recommendations and other agreements. Decision and recommendations guide the actions that are taken by the Contracting Parties, while other agreements are related to issue of importance, monitoring programs and collection of information with relevant guidelines, and eventual action to be taken by the OSPAR Commission on behalf of the States. The action taken under OSPAR Convention are related mainly with pollution by dumping from ship and from land resources considering hazardous substances that can alter the equilibrium of the ecosystems. Moreover, they manage the offshore industries and other human activities related with energy production. Both, OSPAR and NEAFC base their decision on the precautionary approach (©OSPAR Commission 2015 – 2017 (a)).



**Figure 19:** OSPAR Sub-regions. I. Arctic Waters, II. Greater North Sea, III. Celtic Seas, IV. Bay of Biscay and Iberian Coast, and V. Wider Atlantic **Source:** SwAM 2013.

**ICES** is an intergovernmental organisation that works as scientific advisors for governments and international commissions on the sustainable use of marine resources. NEAFC is one of its clients in the North Atlantic area but ICES also works in the Arctic, the Mediterranean Sea, the Black Sea and the North Pacific Ocean (*Fig 2*). The advises provided consider how human activities affect marine ecosystems and *vice-versa*. ICES main function is to provide the best available scientific information to decision-makers to make knowledge-based choices for a sustainable use of the marine environment and ecosystem. In fact, ICES is building a science based ground on the Integrated Ecosystem Understanding that imply a more holistic view of the marine ecosystems (© ICES 2017).

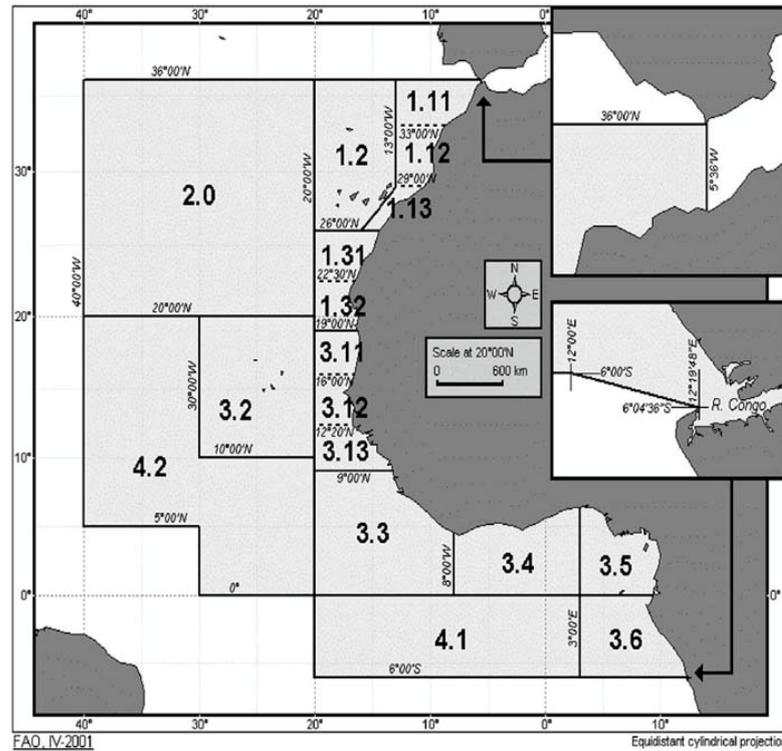


**Figure 20:** Map of ICES Sub-areas and divisions, NE Atlantic. **Source:** Clarke 2003.

In FAO area 34 the organisms operating in this zone are the **Fishery Committee for the Eastern Central Atlantic (CECAF)**, the **Sub-Regional Fishery Commission (SRFC)** and the **Abidjan Convention**.

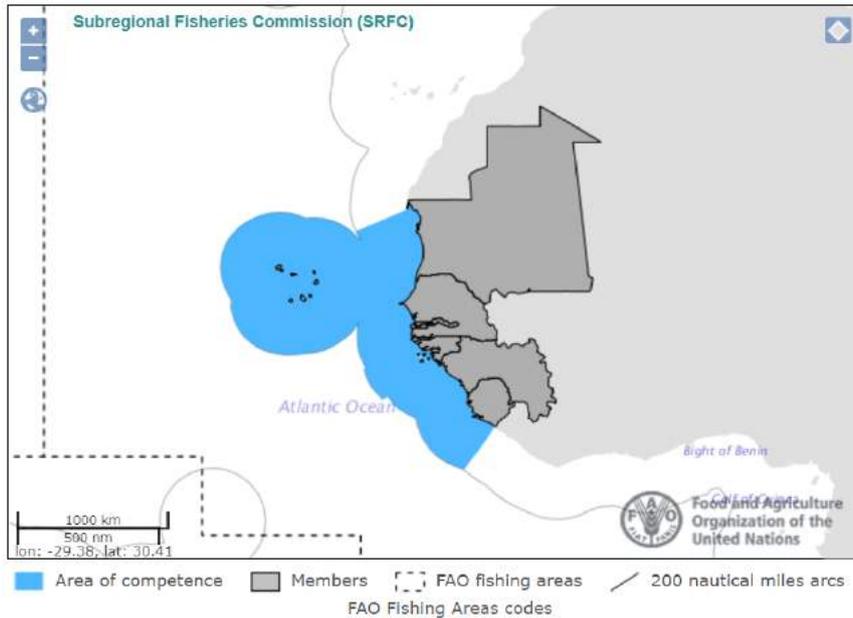
The purpose of **CECAF** is the same of the previous mentioned RFBs in the North East Atlantic, the promotion of a sustainable use of the living marine resources through a proper management of the fishing activities. Therefore, CECAF works to keep updated the state of the fishery resources and of the industries based on them, to promote scientific research and collection and sharing of information, to establish regulatory measures based on scientific data for the conservation and the management of marine resources and to manage the monitoring of the situation. Moreover, others key functions are to provide advice for the adoption of regulatory measures to the Member States, Sub-regional or regional organisations and to promote connection among the competent institutions and to promote and keep under review working arrangement with other international organisation which have similar objectives within the area of competence.

The Area of competence of the CECAF is the whole FAO Area 34 including high seas and waters under national Jurisdictions and its regulation cover all living marine resources within this area. The Committee is composed of a total of 34 between Member Nations and Associate Members, these are selected by the Director-General among the Organisations in Africa whose territory is adjacent to the Atlantic Ocean from Cape Spartel to the mouth of Congo River, and others that are carrying out fishing or research activities in the sea area concerned or that have some other interest in the fisheries (© FAO 2001-2017 (c)).



**Figure 21:** Map of FAO Statistical Area 34 – Coincides with CECAF Area. **Source:** Swan 2003.

The **SRFC** is an inter-governmental fisheries cooperation organization established in 1985 and amended in 14 July in Praia in Cape Verde. It has seven Member States: Cabo Verde, The Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal and Sierra Leone. The SFRC it is a sub-regional institution that enforce the mechanisms of sustainable governance of the fisheries resources in the waters included in National Jurisdiction of its Member States, promoting and strengthening the regional cooperation for the well-being of the population. The EEZ of the Member States has an estimation of 2 million tons/year of catches of which the 77% are small pelagic species of low commercial value but vital for the food and nutrition security of the local population, while the rest is mainly exported to other continents (Europe and Asia). The principal areas of competence are related with national fisheries policies, monitoring, control and surveillance of fishery zones including legal and operational support for the IUU fishing, fisheries research activities and scientific and technical information and ensuring the adoption of joint strategies by international bodies (© SRFC 2016).



**Figure 22:** Map of SRFC Region.

While the CEEAC and the SRFC are involved in fishery sustainability, the **Abidjan Convention** was created for the Cooperation in the protection, management and development of the marine and coastal environment of the Atlantic coast of the West, Central and Southern Africa Region. This Convention geographical scope cover the marine environment, coastal zones and related inland waters that are within the jurisdiction of the States of the West and Central African Region, from Mauritania to Namibia inclusive. As well as the OSPAR convention in the Northern East Atlantic, the Abidjan Convention protocol concern the cooperation in combating pollution, especially in case of emergency, and it manage the associated action plan for the protection and development of the marine environment and coastal areas of the member states. The Contracting Parties of the Abidjan Convention that have ratified the Convention are, Benin, Cameroon, Congo, Côte d'Ivoire, Democratic Republic of Congo, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mauritania, Nigeria, Senegal, Sierra Leone, South Africa and Togo, while Angola, Cape Verde, Equatorial Guinea, Namibia and Sao Tome and Principe are in the process or yet have not ratified the Convention. The Convention designated Cote d'Ivoire as the Depository, and UNEP as the Secretariat (Abidjan Convention 2017).

The Abidjan Convention works together with the OSPAR Convention since 2011. This relationship is an important link inside the framework of the UNEP Programme of Regional Seas and Action Plans, which covers 18 regions of the world. This cooperation is very important specially to share knowledge and experience to facilitate the achievement of a coherent implementation of the Ecosystem Based Management (EBM) within the Action Plans that involve the different areas. The Maritime Areas of the two Convention are adjacent and they cover the whole eastern part of the Atlantic Ocean from the North Pole to South Africa, therefore a transparent relationship between them it is crucial for the common objective, the protection and conservation of the marine ecosystem and its resources, that goes beyond the borders (©OSPAR Commission 2015 – 2017 (b)).

### 2.1.1 The Sustainable Fisheries Partnership Agreement

The first European Fishery Agreement with developing countries started in 1980's before the adoption of the United Nations Convention on the Law of the Sea (UNCLOS) of 1982 that settled the jurisdictional regulation of the coastal states.

The Fishery Agreements are bilateral agreement that permit to EU countries to fish in the Exclusive



Economic Zone (EEZ) of another non-EU country. The EEZ is an area where the coastal states have sovereign rights over their resources and where the states regulate the access to them, as stated in the UNCLOS. Therefore, to fish in the EEZ of another country the **Fishery Agreement** sets rules and guidelines for the financial contribution and the exploitation of the fish stock between the states (Goulding, Megapesca Lda 2016).

In 2002 the reform of the Common Fishery Policy (CFP) brought to an evolution of the traditional and purely commercial Fishery Agreements into the **Fishery Partnership Agreement (FPAs)**, built on the principle of partnership. A further change happened in 2013 with the reform of the CFP, bringing the **Sustainable Fishery Partnership Agreements (SFPAs)**. This new agreement is based on a set of principles:

- Mutual benefits to the Union and to the third country involved;
- Set the standards for EU vessel fishing in EU waters that are also applied outside the EU waters;
- the fishery target can be only a surplus of the allowable catch, as referred to in UNCLOS;
- a clause concerning the respect of human rights.

The European Union has 12 active fishery agreements worldwide. Nine are in the East Atlantic Area with Cape Verde, Senegal, Mauritania, Guinea Bissau, Morocco, Ivory Coast, Sao Tome and Principe, Liberia and Gabon.

In Macaronesia the principal West African actors are, again, Cape Verde, Senegal and Mauritania. There are two main types of Fishery Agreements (Goulding, Megapesca Lda 2016):

- the “tuna-only” Agreements that concern the catches by EU vessel of large pelagic species such as tunas and tuna-like species;
- the “Mixed Agreement” in regards the access for EU vessels to catch a wider range of fish stocks (including tuna in some cases).

With the country present in the Macaronesia region, all the FPAs are “tuna-only” Agreement, but one is partially a Mixed Agreement: Senegal, that was recently modified since historically was included in the first category.

In all the SFPAs, the EU pays to the third country the access rights, to exploit the fish stocks from their EEZ, and a budgetary support for implementing the Sustainable Fishery Policy (SFP) (Goulding, Megapesca Lda 2016).

With the reform of the Common Fishery Policy in 2013, an innovative approach on the fishery policy based on a more selective type of fishing and a stricter control is now ongoing. The discharge it's now prohibited, while the mandatory landing lead to a more effective control on the condition of the fishing stocks. One of the main objective is the accomplishment of a fishery based on the maintenance of a healthy fish stocks based on the Maximum Sustainable Yield (MSY) established by scientific studies. Moreover, local knowledge started to be considered during the process, creating a more bottom-up type of management, with attention also to the consumers (EU Commission - Maritime Affairs and Fishery Magazine 2013)

The Agreements are settled at the beginning of the fishing campaign, through an authorization between the fishing operators. The dimensions of the Protocol are negotiated by the European Commission. Often, the vessel operators do not know the extent of the Agreement and some of the fishing opportunities are completely misunderstood (no authorisations drawn, or they might be drawn but not utilised) or only partially (fishing in the delineated zone for only part of the period or for part of the fishing opportunities available) (Goulding, Megapesca Lda 2016).

In the Atlantic Ocean, the **tuna fishery** consists in 25-28 French and Spanish purse seiner vessels operating in the area under the provision of all the nine SFPAs. The operational base of the East Atlantic is the port of Abidjan of the Ivory Coast, far away from the home bases in Brittany (France) and in the Basque region of Spain.

While the ports of Canary Island and in Mindelo in Cape Verde are the operational base of 35 Spanish and Portuguese surface longline vessels that operate through the region in the all nine SFPAs.

The tuna fishery for the cannery supplies is concentrate in Macaronesia, in the EEZ of Senegal, Guinea

Bissau, Cape Verde and Mauritania that provides for tuna opportunities for up to 40 vessels from Spain and France, with a reference tonnage of 20 000 tonnes a year. The fleet operating is of 14 Spanish and French pole and line vessels. While the vessels from the Atlantic Outermost Regions (usually seasonal) are operating in Morocco together with a fleet of 27 EU pole and line vessel. The fishes are sorted in two directions: The large pelagic fishes such as shark, blue-fin tuna and swordfish are frozen on-board and shipped to the EU market while the smaller tuna such as the yellow fin and tuna-like species supply the cannery operation located most of all in Dakar (Senegal) and along the coast of West Africa (Goulding, Megapesca Lda 2016, Popescu 2016).

Four of the East Atlantic FPAs are **Mixed Agreement**, so EU have the access to a wider range of fish stocks. These are with Mauritania, Morocco, Senegal and Guinea Bissau.

The EU-Mauritania FPA is economically the most significant, as shown in Table 13 where there is a resume of the current situation of the FPA included in the Macaronesian region. The numbers of vessel that can enter in the Mauritanian EEZ is 58 but of these only 20 are actually active. The vessels are divided in five categories: trawler and bottom long-liners, pelagic freezer trawler, non-freezer pelagic vessels and specialized in crustacean and demersal fishery. The fishing opportunity of non-tuna species is 261,500 tonnes per year. This amount is divided within the EU fleet with most of the fishing opportunity for shrimps allocated to Spain, as well as the entire demersal fish quotas, while Italy and Portugal has the rest of the shrimp quotas. Small pelagic fish are allocated to Netherlands, Lithuania, Latvia and Poland for the most, but also to Germany, UK, Ireland and France.

**Table 13.** Current situation of SFPAs with the West African countries in Macaronesia.

Third Country	European Country	Expiry Date	Fishing Opportunities	Total contribution per year (Euro)	Earmarked for SFP (Euro)
Cape Verde	Spain, France and Portugal	22 December 2018	Tuna	500,000 to 550,000	250,000 to 275,000
Senegal	Spain and France	19 November 2019	Mixed	1,668,000 to 1,808,000	750,000
Mauritania	EU	15 November 2019	Mixed	59,125,000	4,125,000

**Source:** Goulding, Megapesca Lda 2016.

The EU-Senegal FPA is peculiar, since is the first Agreement in place after a period of 19 years. It is based mainly on tuna fishery but it has a quota of 2,000 tonnes per year of demersal fisheries, to be divided between maximum two vessels in any quarter.

In any case, the fact that a licence is drawn with one state it does not necessarily mean that the vessel operator will fish only in the EEZ of that state. These fleets operate also in coastal waters and in other EEZ depending from the time of the year since they take arrangement with more than one states. For example, vessels from Las Palmas and/or Dakar operates in Mauritania, Morocco and Senegal (Goulding, Megapesca Lda 2016).

### 2.1.2 The Atlantic ORs in the context of the Common Fishery Policy

Since, the presence of the archipelagos of Azores, Madeira and Canaries that are defined as Outermost Regions, they are currently under a special status by the Article 349 and 355(1) of the Treaty on the Functioning of the European Union (TFEU) (TFEU 2012). There are specific aspects that must be considered in this area related with the protection and preservation of the marine biological resources



since they highly depend on them. In fact, in the Regulation of the CFP it's clearly stated that small offshore island highly dependent from fisheries must be supported with a special status in order to maintain their possibility to prosper. Therefore, it is delineated a limit of 100 nautical miles from the baseline of the islands where the fishing activities are restricted to the vessels appertaining to the fleets registered in the local ports, until 31 December 2022. This restriction it's applicable to all the Union vessel except to the one that traditionally fish in those waters (Goulding, Megapesca Lda 2016, Regulation (EU) 1030/2013).

Therefore, it is drawn a separate assessment between the fleets operating in EU continental waters and the fleets operating in the ORs waters and outside of EU waters, and it is based on the balance between the fishing capacity of the fleets and their fishing opportunities (Regulation (EU) 1030/2013). Moreover, to create a better dialog with local stakeholder, considering the regionalisation of the CFP in EU, the Regulation 1030/2013 proposed the creation of separate Advisory Councils for the ORs divided by the sea basins (West Atlantic, East Atlantic and Indian Ocean), as well as a division for different activities such as aquaculture and markets. Each Advisory Council should establish an appropriate protocol (Regulation (EU) 1030/2013).

## 2.2 General framework for cooperation in Macaronesia: EU policies

The **European Development Policy** is the main instrument that connects the EU with developing countries. It aims to encourage the sustainable development prioritizing the eradication of poverty. It is one of the main policies that put in relation EU with the rest of the world and contribute to the objectives of the EU external action, together with foreign, security and trade policy and international aspects of other policies related with environment, agriculture and fisheries.

The foundation of the EU action on development are the EU treaties and the European Consensus on Development of 2006, which set a common vision for the EU council, the European Parliament and Commission. More recently, in 2011 the Commission proposed a more specific strategy for the objective of the European Development Policy, the Agenda for Change, that includes a more precise guideline for the allocation of funding.

Furthermore, the EU is preparing a new European Consensus and Development to create a stronger connection with the 2030 Agenda for Sustainable Development set by the UN Summit in September 2015 (EU Commission 2017 (b)).

This new European Development Policy, beside to maintain the reduction of poverty as first objective, it integrates economic, social and environmental aspects of sustainable development creating connection with other policies related with peace and security, humanitarian aid, migration and environment and climate change (EU Commission 2017 (a)).

The financial instrument that promotes the cooperation between the European Union and developing countries is the **European Development Fund (EDF)**. It was first provisioned in 1957 with the Treaty of Rome that put the basis to grant technical and financial assistant to African countries with which some of the Member States had historical links. Now is the main tool that provide assistance to develop cooperation in the African, Caribbean and Pacific (ACP) States and Overseas countries and territories (OCTs) (EDF 2014). The EDF is funded by the Member States and it has specific financial rules managed by its own committee (International Agreement (L 210/1) 2013) that established several EDF cycles defined by conventions and partnership agreements. Currently the 11<sup>th</sup> EDF is active with a total financial resource amount of € 30.5 billion for the period 2014-2020 (EDF 2014).

In the context of cross-border cooperation, another crucial point was the Cotonou Convention signed on the 23<sup>th</sup> of June of 2000 that first established **the EU Partnership Agreements (EPAs)**. Lately in 2010 was renewed to include topic such as climate change, food security, HIV-AIDS, sustainability of fisheries, strengthening security in fragile regions and for create synergy with the Millennium Development Goals (replaced in 2016 by the 17 Sustainable Development Goals) (Cotonou Agreement 2016). The principal objective of EPAs is to help ACP countries to integrate them into the global economy.



During the same year of the Cotonou Convention also happened the Africa-EU Summit in Cairo, where the general partnership framework was first established, the situation evolved in time constructing new level of cooperation such as the Joint Africa-EU Strategy (JAES) that aims to a sustainable development (EU Council 2007).

The latest Africa-EU Summit was the fourth, held in Brussels in 2014, where a Roadmap 2014-2017 was discussed. The Roadmap focuses the implementation of the Joint Strategy (EU Council 2007) on 5 priority areas: Peace and security, democracy, good governance and human rights, human development, sustainable and inclusive development and growth and continental integration and global and emerging issues (EU-Africa Summit 2014). The next summit is planned to take place in Abidjan in November 2017 (EU Commission 2017-d).

The relevant EPA in Macaronesia is the one with the West African countries. The principal political alliances that are part of the trade, are the European Union, the Economic Community of West African States (**ECOWAS**) and the West African Economic and Monetary Union (**WAEMU**) (EU Commission 2017 (e)).

The **ECOWAS** is a regional group installed to promote the economic integration in all fields of activity of the 15-member countries: Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Sierra Leone, Senegal and Togo. As a trading union, it is considered as a single, large trading bloc of the African Economic Community. It was created in 1975, but only in July 2014 entered in the European Partnership Agreement together with Mauritania establishing the **West Africa – European Union EPA**. This agreement will lead to the gradual removal of trade restriction between the two trade partners. The regional agreement is related with trades of goods and development-cooperation (ECOWAS 2016). Included in the ECOWAS' members there are the ones that are part of the **WAEMU** (also known with the French acronym UEMOA). The WAEMU was established in 1994 between the states that use the CFA Franc (Benin, Burkina Faso, Cite D'Ivoire, Mali, Niger, Senegal, Togo and Guinea Bissau that entered in 1997) (UEMOA, 2017). The principal aim of ECOWAS is the creation of a peaceful and secure region without border, where the population can enjoy an elevated level of education and health system and engage in economic and commercial activity using sustainably the abundant resources of the region.

West Africa is the largest EU's trading partner in the Sub-Saharan African region and the EU is the most important trading partner of West Africa. In fact, most of the resources that contributes to the West African economic growth come from the EU. Part of the goods that are exported from West Africa are from fisheries, agriculture and textile market, nevertheless, the main sector of collaboration between them is related with fuel and food products, machinery, chemicals and pharmaceutical products. (EU Commission 2017 (e)).

Among the relationships with the member states of the ECOWAS and EU, Cape Verde is one of the oldest. Since it is more than 35 years that are involved in a significant and stable cooperation in the sign of development. Cape Verde and EU share the values of democracy, respect for human rights and for the law, and the strength of this bond between EU and Cape Verde is probably related to the creation of the **EU-Cape Verde Special Partnership** in 2007.

One of the reason for which this partnership started is the geographical and cultural inclusiveness in the region of Macaronesia with the European archipelagos of the Canaries, Madeira and Azores. The partnership, beside of fortify the bond between the Atlantic ORs, it also intensifies the relationship between the ECOWAS and the EU creating the basis for the West African – EU EPA. The EU-Cape Verde Special Partnership is built on six pillars:

- Good Governance;
- Security/stability;
- Regional integration;
- Technical and Regulatory Convergence;
- Knowledge-based Society;
- Development and the fight against poverty.



The special partnership was established in the framework of the 10<sup>th</sup> EDF country strategy and national indicative programme, and it was included in the ERDF for cooperation with the ORs. The integration of Macaronesia created more synergy in relation with the Wider Neighbourhood European Policy, since this partnership increased dynamism and competitiveness through the participation of Cape Verde in the transnational Madeira, Azores, Canaries (MAC) cooperation programme, that in 2007 started the period 2007-2013 (Commission of the European Communities 2007).

### 2.2.1 Regional Development:

In Macaronesia, the European cooperation agreements involve the West African countries with Senegal, Mauritania and Cape Verde as principal actors in the cross-border cooperation programs approved in the region.

The last program of partnership between EU and West Africa ended in 2013. It was the **10<sup>th</sup> EDF Regional Indicative Programme (RIP) for West Africa** that allocated a budget of 595 million of euro to improve social, political and environmental aspects enhancing the competitiveness, the capacity building and the Economic Partnership Agreement (EPA) in the region. It was focused especially on food security, poverty reduction in rural areas and natural resources protection; transport and infrastructure development and conflict prevention and peace building. Overall the 10<sup>th</sup> EDF supported the economic integration, the establishment of an effective common market and the consolidation of good governance in West Africa (EU Commission 2017-f).

Different studies have been developed on the cross-border cooperation (CBC) in West Africa specific of the region of Macaronesia during the 10<sup>th</sup> EDF period from 2008 to 2013. One was “Opportunities for CBC in West Africa”, carried out in 2011-2012 by the Association of European Border Regions (AEBR). Also, the “Transnational Cooperation Programme Madeira-Azores-Canaries 2007-2013” (MAC Programme) involved some West African partners within 50 projects carried out during the programme. One of the latest, published in 2014 had as objective to “support the preparation of an Action Plan for the development of CBC and the enhancement of social, cultural, economic and environmental sustainable development along the Western African seaboard” with a particular focus on the active involvement of regional and local stakeholders. This study underlined that the greatest potential for CBC lay in the fields of environment, culture (Senegal) and tourism (Cape Verde and European Macaronesia). Certainly, factors such as the linguistic and cultural affinity, proximity and the support of the EU for sharing the awareness and management of problems, facilitate the CBC in the region. However, lack of information and inadequate transport connections are the main constraining factors. The low level of transport connections is particularly problematic between Cape Verde and the rest of Macaronesia (Martinos *et al.* 2014). All these studies and programme highlight the will of the EU to continue to fortify the relationship with the African neighbour countries.

In this context, the role played by the ORs in the Atlantic it’s crucial for the CBC with the West Africa. The geographical proximity and the similar ecological condition are open opportunities to create a bridge between the continents. Within some co-funded programs, the European Union is involving Senegal, Mauritania and Cape Verde in numerous and mutually beneficial project together with Azores, Canaries and Madeira islands.

The projects are often multidisciplinary and they cover all the policies regarding the sustainable development, focusing on the environmental aspects, energy, transport, SMEs and social aspects.

Most of the initiatives developed in Macaronesia are co-funded with European Funds, mainly managed by the archipelagos within the EU while Cape Verde, Senegal and Mauritania collaborate in the initiatives. Many of the projects that involve the whole region are about the management of various aspects of Marine and Maritime areas, related with biodiversity conservation, transport, research & innovation, tourism and blue growth in general.

For the 5<sup>th</sup> consecutive year, the European Territorial Cooperation (ETC) program or INTERREG, established the latest edition of the program: **INTERREG V 2014-2020**. This aims to implement cohesion policies and create synergies between policy framework throughout joint actions at national, regional and local level. The final goal is to build up a harmonious economic, social and territorial development of the EU.

The program comprises three cooperation actions:



- Cross-border (Interreg A);
- Transnational (Interreg B) and;
- Interregional (Interreg C).

The total amount of funds displaced for this program is 10.1 billion of Euro (EU Commission 2015). The latest meeting was held in Malta in April 2017, to discuss the state of play of implementation of the Interreg programmes and for sharing experience and reflection about the Interreg VI (EU Commission 2017 (c)).

Under the umbrella of INTERREG there is the program **MAC 2014-2020** that is specific for Macaronesia to improve the already strong regional partnership between Canaries, Madeira and Azores and to introduce a better cross-border relationship with the West Africans' neighbours Cape Verde, Mauritania and Senegal. Among the various project, many are related with Blue Growth and the use of the marine resources and the maritime space. Not all of them involve all the islands of the Macaronesia but it is noteworthy the participation of the Non-EU countries. A strong sign of the will to build a stronger cross-border cooperation. Listed below there are the approved project with a brief description:

- Under the INTERREG Atlantic Area:
  - **CAPITEN:** Cluster Atlântico para a Inovação Tecnológica e Económica no Sector Náutico (Atlantic Cluster for Innovation, Technology and Economy in the Nautical Sector) A three years project to improve the economic development of the Nautical Industry in the Atlantic Area that worth 8.9 million of Euro and employ 85 thousand persons. The consortium consists of 20 participants of Portugal, Spain, UK and Ireland and involve 14 regions including the ORs of Madeira and Canary Islands (ACIF- CCIM 2017).
- Under the INTERREG V – MAC 2014-2020:
  - **DESAL +:** a Macaronesian platform to increase excellence in R & D in water desalination and knowledge on the combination of desalinated water and renewable energy. The water will be used as supply and for agricultural activities. The partners involved are universities, governmental and non-governmental institution from Canary Island, Madeira, Cape Verde and Mauritania.
  - **REBECA:** A Network of excellence in blue biotechnology of the Macaronesia using the collection of microalgae and cyanobacteria of the region to improve the knowledge for the conservation of biodiversity and develop an industry based in the use of natural products for cosmetics and other material such bioplastics. This will generate a line of cooperation between the archipelagos through the creation of jobs and the involvement of regions at risk of social inclusion. The partners are from Canaries, Azores, Madeira, Cape Verde and Mauritania.
  - 1. **PLASMAR:** a base for the Sustainable Development of Marine Areas in Macaronesia. The project starts the MSP process, and it aims to balance the integrated development of the maritime sector and the protection of the environment, with 3 objectives: apply the ecosystem approach to Blue Growth by studying the current and future needs of the maritime sector and striking the balance between maritime development and environmental planning; develop the Distributed Marine Data Infrastructure (IDDM) as a base for knowledge for MSP; and provide monitoring methods, with innovative methodologies to apply the ecosystem approach to the MSP. The partners are from the Canaries, Azores and Madeira.
  - **MACBIOBLUE:** Demonstrative and technology-transfer project to help companies to develop new products and processes in the field of Blue Biotechnology in Macaronesia with the use of micro and macroalgae. Canary Islands, Azores, Madeira, Senegal, Cape Verde and Mauritania will collaborate through a joint process of investigation.



- **MARCET:** A Multidisciplinary and Interregional network of technology and knowledge-transfer in Macaronesia, to protect, follow and monitoring the cetacean of the region and analyse and exploit in a sustainable manner the associated touristic activity. The partners are from the Canaries, Azores, Madeira, Senegal and Cape Verde.
- **ECOMARPORT:** Technology transfer and eco-innovation for environmental and marine management in port areas of Macaronesia. The project aims to promote R&D in the European and African Macaronesian regions by implementing an operational network for environmental and marine observation in terms of water and air quality in ports area, through the development and use of sustainable technologies, generation of products and tools, all through cooperation and adequate and efficient technology transfer between the public and private sectors in the field of science and technology. The partners are from the Canaries, Madeira, Azores and Cape Verde.
- **MARISCOMAC:** technical-scientific development, training and transfer of technology and knowledge for the exploration, sustainable exploitation, transformation and commercialization of shellfish in Macaronesia. The partners are from Madeira, the Canaries and Cape Verde.
- **INTERPORT:** boosting the internationalisation, export and competitiveness of port SMEs through innovation, technology and business cooperation. The project will be developed especially between two port activities, the supplier of ships and the naval and auxiliary repairers. All the participating Ports have high incidence in both sector, such as Las Palmas of Gran Canaria and Cape Verde but Mauritania and Madeira are more related with the second and the first activity respectively.
- **PLAMACAN:** The main objective of the project is to facilitate the internationalization of companies in Mauritania by creating a platform for the management of common business projects in the area of services and industries linked to the treatment of fisheries, of services to the extractive industry and off-shore activities, and finally to the tourism. These sectors have been chosen because of the renewal of the fishing agreement and the boom of the extractive industry in the region and are sectors of high value where to develop joint projects between the Canaries and Mauritania.
- **SMART-BLUE:** a network of marine-maritime clusters for boost the SMEs competitiveness in blue economy. The aim is to develop consolidated maritime subsectors such as fisheries, shipping and ports, or emergent such as maritime tourism (nautical and cruising), aquaculture or marine biotechnology, as reflected in the European Blue Growth. In this line, the SMART BLUE ATLANTIC project will develop a network to promote activities and to support services in innovation and internationalization focused on the regional maritime clusters and aimed at enhancing SMEs in the blue economy of the MAC cooperation space. The partners are from the Canaries, Azores, Madeira and Cape Verde.
- **NAUTICOM:** Nautical Cooperation Network in Macaronesia. Fostering Internationalization, Tourism Competitiveness and the Blue Growth of the Macroregion MAC. This project aims to create the conditions for marinas and small nautical companies of the Canary Islands, Azores, Madeira, Cape Verde and Mauritania to lead a process of business renewal, based on internationalization, business cooperation and innovation.
- **ECOTUR-AZUL:** Development of a common model of ecotourism to valorise and protect the patrimonial resources of the coastal and maritime territories, contributing to the "Blue Growth" strategy of the area of Macaronesia. The partner are from the Canaries, Madeira, Azores, Cape Verde and Mauritania.



- **MARGULLAR:** A project to protect the environment and the natural and cultural heritage of the Macaronesia. The main objectives are to conserve, protect and promote the sustainable use of the underwater heritage in Macaronesia through the creation of a new touristic products. Stakeholder are from the Canaries, Madeira, Azores, Cape Verde and Senegal.
- **ECOTOUR:** Valuation of natural resources in coastal protected areas as an ecotourism attraction. This initiative seeks to promote ecotourism as an economic activity to contribute to the conservation of ecosystems and to the maintenance of the environmental services that these generate and, at the same time, to contribute to the financial sustainability of these areas and of the population that lives in them. The stakeholders are from the Canaries, Azores, Senegal, Mauritania and Cape Verde.
- **MIMAR:** Monitoring, control and mitigation of proliferations of marine organisms associated with human disturbances and climate change in Macaronesia. The project aims to know and measure the changes that are taking place in the habitats of major interest or relevance (Natura 2000 Network), identifying the resilient elements for protection and conservation and providing the necessary tools to mitigate the detrimental effects of these changes. This project will comply with the Strategic Plan for Biological Biodiversity 2011-2020; and point 9 of the Aichi Targets of the Convention on Biological Diversity. The partners of the project are from the Canaries, Madeira, Senegal, Cape Verde and Mauritania (Listado de proyectos aprobados y beneficiarios 1ª convocatoria 2014)

### 2.2.2 The Atlantic Action Plan

All the project mentioned above are well in concordance with the principles of the Action Plan for a Maritime Strategy in the Atlantic Area, proposed through a Communication from the Commission in 2013. The strategy is based on the development of the blue economy in the Atlantic area, with the five Atlantic Member States (France, Ireland, Spain, Portugal and United Kingdom) fully committed to create a sustainable and inclusive growth in the coastal area, using the marine resources of the Atlantic waters following an ecosystem based management approach.

The aims are to reduce the ecological footprint supporting a low-carbon economy; to increase the capacity for research and innovation implementing educational training and join the investigation with the industry; to increase the competitiveness of SMEs such as the touristic sector, fisheries and aquaculture (European Commission 2013).

The Plan has settled four priorities: i) Promote entrepreneurship and innovation; ii) Protect, secure and develop the potential of the Atlantic Marine and Coastal environment; iii) Improve accessibility and connectivity; and iv) Create a socially inclusive and sustainable model of regional development (Support Team for the Atlantic Action Plan 2016).

In this context, the cross-border cooperation within and outside of EU has a great potential to help to deliver the expected results on the agreed four priorities of the strategy, and in the region of Macaronesia it's already happening with the cooperation with the West African coast and islands and the East Atlantic ORs. (Martinos *et al* 2014).

### 2.2.3 Region and Sub-region of the Marine Strategy Framework Directive

The Marine Strategy Framework Directive (MSFD) was adopted in EU in 2008 as the first EU Directive for effectively protect the marine environment in European waters.

The main goal is to achieve the Good Environmental Status (GES) by 2020 implementing the ecosystem approach in the management of the human activities on the marine environment, and as one of its principal pillar it has the maintenance of the marine biodiversity.

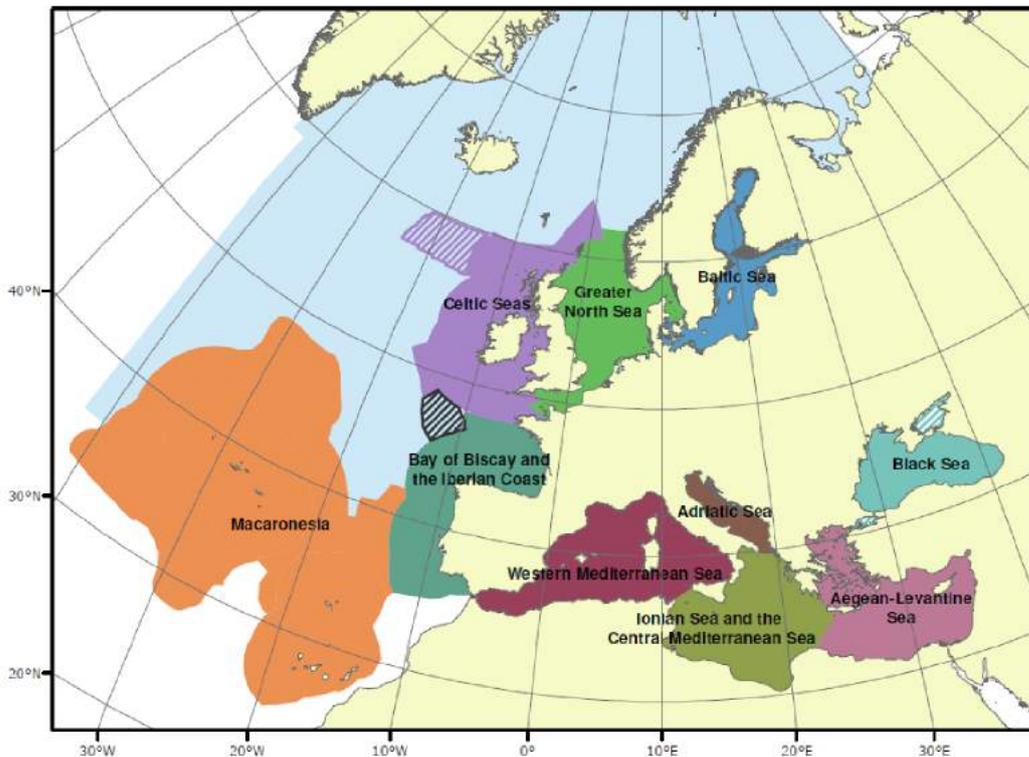
Also, the MSFD established European marine regions and sub-regions based on geographical and environmental criteria. The Directive list four marine regions in art. 4: the Baltic Sea, the North-east Atlantic Ocean, the Mediterranean Sea and the Black Sea.

The Directive does not give precise indication on the boundaries of the region and sub-regions in the EU waters, but they have recently been harmonized within the boundaries previously settle by the Regional Sea Conventions, Habitats Directive, the ICES Areas and the jurisdictional waters of the Member States (Jensen et al 2017).

Within the context of this study, the area of interest is the North East Atlantic, that is divided in four sub-regions:

- The Greater North Sea, including the Kattegat and the English Channel
- The Celtic Seas
- The Bay of Biscay and the Iberian Coast
- Macaronesia

The Sub-ecoregion of Macaronesia includes the EEZ and the Extended Continental Shelf, which so far have been reported from Portugal and Spain, of course in this map, Cape Verde is not included in the sub-region since is not part of the EU (Jensen et al 2017).



**Figure 23:** MSFD Region and Sub-region. **Source:** Jensen et al 2017

**Table 14.** Sub-regional location of Macaronesian Archipelagos.

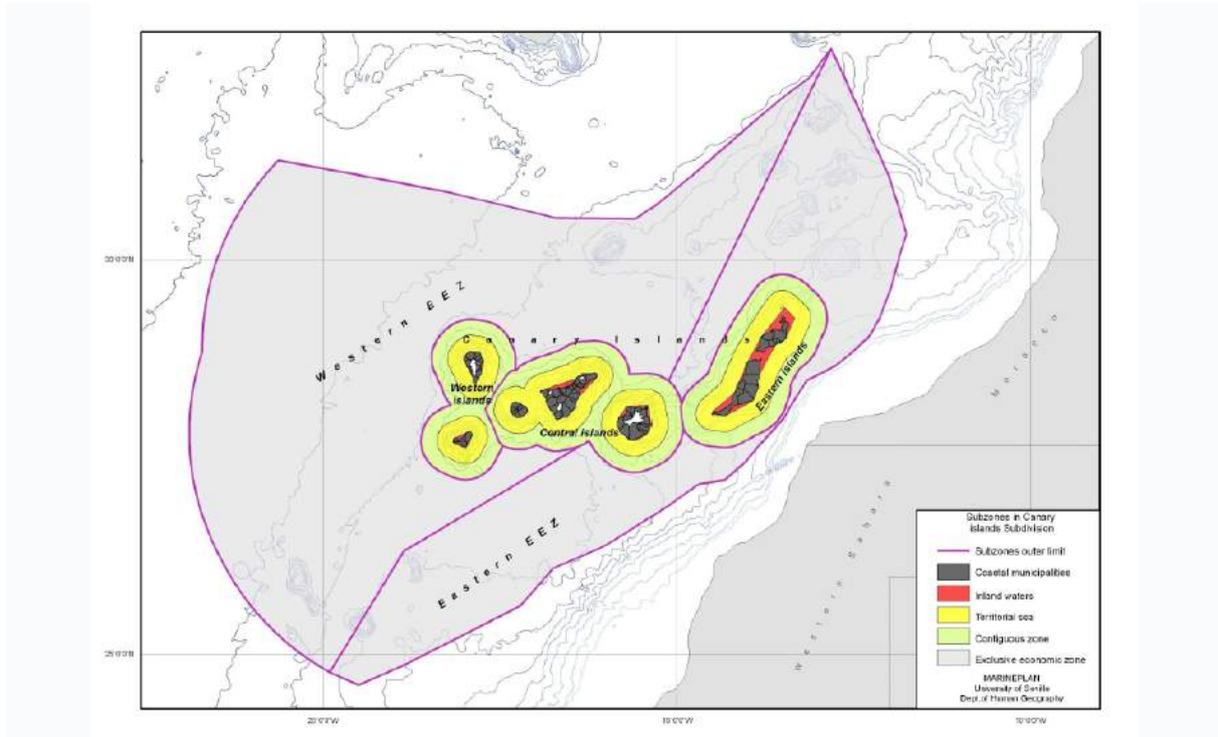
Archipelago	OSPAR Sub-reg.	ICES Area	CECAF Area	MSFD Sub-reg.
<b>Azores</b>	V	X	---	Macaronesia
<b>Canaries</b>	---	---	34.1.2 and 34.2.0	Macaronesia
<b>Madeira</b>	---	---	34.1.2	Macaronesia
<b>Cape Verde</b>	---	---	34.3.2	---

### 2.3 Maritime Spatial Planning in Macaronesia

Within the framework of the MSFD, the different region and sub-region previously indicated, define an umbrella where lie a recommendation for a regionalisation or zoning as a methodology to implement maritime plans. In this respect **Spain** has a proposal for its jurisdictional waters, including the waters around **Canary Island**. The Sub-zonation of the archipelago consider five areas. The Internal and Territorial Waters and the Continuous Zone of the three groups of islands, and a subdivision of the EEZ of the archipelago based on a territorial balance between the two:

- The Eastern Group (Fuerteventura, Lanzarote, La Graciosa, Alegranza, Eastern and Western Roques, Montaña Clara and Isla de Lobos);
- The Central Group (Gran Canaria, Tenerife and La Gomera);
- The Western Group (La Palma and Hierro);
- Eastern EEZ;
- Western EEZ (Suárez-de Vivero 2011).

In Canary Islands the implementation of MSP in the Internal Waters could be the competence of the regional government, since there has been an ambiguous modification on the Spanish legislation that did not specified the legal status of the waters. This could also create a precedent for eventual claims from others Autonomous Communities (de Vivero and Mateos, 2012).



**Figure 24:** Sub-division for implementation of MSP in Canary Islands. **Source:** Suárez-de Vivero 2011

Regarding **Portugal**, the Directorate-General for Natural Resources, Safety and Maritime Services (DGRM) had the first meeting in March 2016 related to the Portuguese Maritime Spatial Plan. Each of the Functional Unit listed below have been related with The Continental Land as well as **the Autonomous Region of Azores and Madeira**, except the Continental Shelf. The sub-division of the Functional Unit is:

- the Internal and Territorial Waters, for the geopolitical importance, for the common uses and activities and their compatibility present in this area, for the sea/land interface. Moreover, it's a crucial area for the Coastal Programs, for the relation with the Management of Protected Area and for the estuaries and lagoon areas.
- The EEZ, the water column of the maritime spaces between 12 - 200 Nm. This zone is critical for the mechanisms of compatibility for cross-border planning especially the two MSFD sub-regions the Iberian Coast and Bay of Biscay and Macaronesia.
- The Continental Shelf, the Maritime Public Domain from 12 Nm to the outer limit. In this case, the geopolitical and geostrategic importance of the continental shelf is crucial for the uses in relation with the EEZ, the High Seas and especially with the Area (DGRM 2016).

Currently, Portugal has a geoportal for the MSP in which the Autonomous Region of Madeira is also involved: PSOEM (Plano de Situação do Ordenamento do Espaço Marítimo Nacional) that is in phase of elaboration (PSOEM 2017). As well as the Autonomous Region of Azores that has recently construct a portal for the Azorian MSP called POEMA (Plano de Ordenamento do Espaço Marítimo dos Açores), also in phase of elaboration (© Direção Regional dos Assuntos do Mar 2017).

Also, the only non-EU Archipelago in Macaronesia, **Cape Verde** is constructing a framework for maritime planning. In the OCEAN CONFERENCE of the UN, held in New York at the beginning of June 2017, the Government of Cape Verde, more precisely the National Directorate of Environment presented the creation and implementation of a comprehensive framework for maritime sector planning and threat management under the SDG 14 – Life below Water.



The project involves the arrangement of a GIS-based Integrated Marine Spatial Planning (IMSP) platform to centralize the planning process and help the decision-makers for the development of the plans. The vision is based on a blue-economy development that sees as principal sectors: artisanal, industrial and sport fisheries as principal points of actions, aquaculture, energy generation, port construction and related industrial development, and marine traffic with a strong commitment in maintaining the biodiversity and ensure an environmental sustainability. In this matter, there is already on the way of development a first national Invasive and Alien Species (IAS) prevention and management initiative and a strategy for an emergency protocol in case of maritime accidents and oil/chemical spills. This initiative will also boost the ratification of the IMO Ballast Water Convention and establish the related national framework. On top of that, the IMSP will catalyse the creation of a national framework for other convention that the Government of Cape Verde signed but did not ratified yet, such as MARPOL, OPRC, the London Convention and the Anti-Fouling Convention. The time frame for the plan goes from January 2019 to December 2022 (© United Nation 2017).



## References

Abidjan Convention. 2017. The Convention. [http://abidjanconvention.org/?option=com\\_content&view=article&id=90&Itemid=189&lang=en](http://abidjanconvention.org/?option=com_content&view=article&id=90&Itemid=189&lang=en) [14 October 2017].

ACIF-CCIM (Câmara do Comercio e Indústria da Madeira). 2017. Projectos em curso. <http://www.acif-ccim.pt/Default.aspx?ID=747> [06 July 2017].

Almeida A. and Correia A. 2010. Tourism development in Madeira: an analysis based on the life cycle approach. *Tourism Economics*, 16(2), 427-441. <https://doi.org/10.5367/000000010791305644> [July 2018]

Assemblea da Republica. 2005. Constituição da república portuguesa, VII revisão constitucional [2005], p. 1–91.

Azevedo F. 2017. European Parliament. Outermost Regions (ORs). Factsheets of the European Union 2017, p.1– 3.

Bosa, M. S. 2013. The Control of Port Services by International Companies in the Macaronesian Islands (1850–1914). In *Global Histories, Imperial Commodities, Local Interactions*. pp. 58-76. Palgrave Macmillan, London. [https://link.springer.com/chapter/10.1057/9781137283603\\_4](https://link.springer.com/chapter/10.1057/9781137283603_4) [July 2018]

Calado H., Borges P., Ng K. and Vergílio M. 2017. Case Study Portugal: Addressing tourism development and climate change in small Atlantic islands: the case of the Azores. *Global Climate Change and Coastal Tourism: Recognizing Problems, Managing Solutions and Future Expectations*, 125. [July 2018]

CAM. 2010. Cimeira dos Arquipélagos da Macaronésia. Declaração Conjunta dos Governos da República de Cabo Verde, do Reino de Espanha, da República Portuguesa e dos Governos Regionais dos Açores, de Canárias e da Madeira, p. 1- 3.

Cabo Verde Statistical Yearbook. 2015. Instituto Nacional de Estatística. [http://ine.cv/wp-content/uploads/2017/02/statistical-yearbook-cv-2015\\_en.pdf](http://ine.cv/wp-content/uploads/2017/02/statistical-yearbook-cv-2015_en.pdf) [11 July 2018]

Camarero Orive A., Cerbán Jiménez M., Turias Domínguez, I., González Cancelas, N., & Camarero Orive, A. 2016. Metodología para la clasificación de los puertos mediante indicadores de explotación utilizando análisis de conglomerados. *INGE CUC*, 12(2), 41-49. <https://revistascientificas.cuc.edu.co/index.php/ingecuc/article/view/810> [July 2018]

Carracedo J.C. 2001. Volcanismo reciente y riesgo volcánico. In *Naturaleza de las Islas Canarias. Ecología y conservación* (Fernandez-Palacios, J.M. and Martín, J., editors), 65–76. Turquesa, Santa Cruz de Tenerife, Canary Islands.

Carvalho L. and Leitao N. 2005. The "strategic" notion of the Selvagens Islands. *GeoINova*, Volume 11.

EU Parliament, 2014. P7\_TA (2014)0133. Optimising the potential of outermost regions. European Parliament resolution of 26 February 2014 on optimising the potential of outermost regions by creating synergies between the Structural Funds and other European Union programmes (2013/2178(INI)), p. 1-12.

CIA. 2016. Central Intelligence Agency. Cabo Verde - The World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/cv.html> [30 June 2017].

Clarke M.W. 2003. A life history approach to the assessment of deepwater fisheries in the Northeast Atlantic. *Deep Sea 2003: Conference on the Governance and Management of Deep-sea Fisheries*. Fishery and Aquaculture Department, FAO 2005, pp: 196- 210.

Commission of the European Communities. 2007. COM (2007) 641 final. Communication from the Commission to the Council and the European Parliament on the future relations between the European Union and the Republic of Cape Verde. [SEC (2007) 1415], p. 1-7.



- Condé S., Richard D., Liamine N., Leclère A.S., Sotolargo B., Pinborg U. 2009. Biogeographical regions in Europe. The Macaronesian region – volcanic islands in the ocean. European Environment Agency, Luxembourg.  
<http://ec.europa.eu/environment/nature/info/pubs/docs/biogeos/Macaronesian.pdf>.
- Correia V.F. 2013. Núcleo de Avaliação e Comunicação/UEA do Insituto de Desenvolvimento Regional (IP-RAM). Espaço Global. Suplemento Anual sobre os Incentivo da Uniãp Europeia. Editor: Insituto de Desenvolvimento Regional (IP-RAM). N (6) p. 1-112.
- Cotonou Agreement, 2016. Summary of Partnership Agreement 2000/483/EC between the African, Caribbean and Pacific Group of States of the one part, and the EU, of the other part. <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=LEGISSUM:r12101&from=EN> [19 September 2017].
- DGRM. 2016. Direcção Geral de Recursos Naturais. Plano de Situação do Ordenamento do Espaço Marítimo. 1ª Reunião Plenária da Comissão Consultiva. 21 de março de 2016. Direcção Geral de Recursos Naturais, Segurança e Serviços Marítimos, pp. 1-9.
- DOALOS. 2013. Division for Ocean Affairs and the Law of the Sea. Declarations and Statements. [http://www.un.org/Depts/los/convention\\_agreements/convention\\_declarations.htm](http://www.un.org/Depts/los/convention_agreements/convention_declarations.htm) [13 July 2017].
- Domingues V.S., Alexandrou M., Almada V.C., Robertson D.R., Brito A., Santos R.S., Bernardi, G. 2008. Tropical fishes in a temperate sea: evolution of the wrasse *Thalassoma pavo* and the parrotfish *Sparisoma cretense* in the Mediterranean and the adjacent Macaronesian and Cape Verde Archipelagos. *Mar. Biol.*, 154: 1432–1793.
- Fernandez-Palacios, J.M., de Nascimento, L., Otto, R., Delgado, J.D., García del Rey, E., Arévalo, J. R., Whittaker, R.J., 2011. A reconstruction of Palaeo-Macaronesia, with particular reference to the long-term biogeography of the Atlantic island laurel forests. *Journal of Biogeography*, 38(2), p. 226–246.
- DRAM. 2017. Direcção Regional dos Assuntos do Mar. OEMA, Ordenamento do Espaço Marítimo dos Açores. Governo dos Açores. <http://sigmar.azores.gov.pt/Poema.aspx> [15 October 2017].
- Duarte, G.B.B. 2013. Ordenamento costeiro em territórios insulares. Recomendações para o processo em Cabo Verde, s.l.: s.n.
- ECOWAS. 2016. Economic Community of West African States. Economic Partnership Agreement. <http://www.ecowas.int/doing-business-in-ecowas/epa/> [20 September 2017].
- EDF. 2014. European Development Fund. Summaries of EU legislation. <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=LEGISSUM:r12102&from=EN> [28 July 2017].
- EU Commission. 2013. European Commission. COM (2013) 279 final. Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions action plan for a maritime strategy in the Atlantic area delivering smart, sustainable and inclusive growth, p. 1-12.
- EU Commission. 2013. European Commission Reform of the Common Fishery Policy: a sustainable future for fish and fishermen. *Maritime Affair and Fishery Magazine*. [https://ec.europa.eu/dgs/maritimeaffairs\\_fisheries/magazine/en/policy/reform-common-fisheries-policy-sustainable-future-fish-and-fishermen](https://ec.europa.eu/dgs/maritimeaffairs_fisheries/magazine/en/policy/reform-common-fisheries-policy-sustainable-future-fish-and-fishermen) [16 September 2017].
- EU Commission. 2015. European Commission. Regional Policy. Interreg: European Territorial Cooperation. [http://ec.europa.eu/regional\\_policy/it/policy/cooperation/european-territorial/](http://ec.europa.eu/regional_policy/it/policy/cooperation/european-territorial/) [06 July 2017]
- EU Commission. 2017a. European Commission. European Consensus on Development. International cooperation and development. Building partnership for change in development countries. [https://ec.europa.eu/europeaid/policies/european-development-policy/european-consensus-development\\_en](https://ec.europa.eu/europeaid/policies/european-development-policy/european-consensus-development_en) [20 September 2017].
- EU Commission. 2017b. European Commission. European development policy. International cooperation and development. Building partnership for change in development countries.



- [https://ec.europa.eu/europeaid/policies/european-development-policy\\_en](https://ec.europa.eu/europeaid/policies/european-development-policy_en) [20 September 2017].
- EU Commission. 2017.c. European Commission. Regional Policy. Interreg Annual Meeting, 26- 28 April 2017. [http://ec.europa.eu/regional\\_policy/en/conferences/etc2017/](http://ec.europa.eu/regional_policy/en/conferences/etc2017/) [06 July 2017].
- EU Commission. 2017d. European Commission. Toward the 5th Africa-EU Summit – EU Communication 4 May 2017 – Factsheets. International cooperation and development. Building partnership for change in development countries. [https://ec.europa.eu/europeaid/toward-5th-africa-eu-summit-eu-communication-4-may-2017-factsheets\\_en](https://ec.europa.eu/europeaid/toward-5th-africa-eu-summit-eu-communication-4-may-2017-factsheets_en) [24 July 2017].
- EU Commission. 2017e. European Commission. Trade. Countries and Region. West Africa. <http://ec.europa.eu/trade/policy/countries-and-regions/regions/west-africa/> [20 September 2017].
- EU Commission, 2017f. European Commission. West Africa. International cooperation and development. Building partnership for change in development countries. [https://ec.europa.eu/europeaid/regions/africa/west-africa\\_en](https://ec.europa.eu/europeaid/regions/africa/west-africa_en) [24 July 2017].
- EU Commission. 2017a. European Commission. Funding, Tenders. European structural and investment funds. [https://ec.europa.eu/info/funding-tenders/european-structural-and-investment-funds\\_en](https://ec.europa.eu/info/funding-tenders/european-structural-and-investment-funds_en) [07 September 2017].
- EU Commission. 2017h. European Commission - Executive Agency for Small and Medium-sized Enterprises (EASME). Realising the potential of the Outermost Regions for sustainable blue growth FINAL REPORT [http://ec.europa.eu/regional\\_policy/sources/policy/themes/outermost-regions/pdf/rup\\_2017/rup\\_sust\\_blue\\_growth\\_en.pdf](http://ec.europa.eu/regional_policy/sources/policy/themes/outermost-regions/pdf/rup_2017/rup_sust_blue_growth_en.pdf) [30 July 2018]
- EU Commission. 2018a. European Commission. Regional Innovation Monitor Plus Canary Island: Socioeconomic profile. <https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/base-profile/canary-islands> [16 July 2018]
- EU Commission. 2018b. European Commission. Regional Innovation Monitor Plus Madeira Region: Socioeconomic profile. <https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/base-profile/madeira-region> [16 July 2018]
- EU-Africa Summit. 2014. Brussels. Fourth EU-Africa summit 2-3 April 2014, Brussels roadmap 2014-2017, p. 1- 13.
- EU Council, 2007. The Africa-EU strategic partnership. A Joint Africa-EU Strategy. Lisbon, 9 December 2007, 16344/07 (Presse 291), p. 1- 82.
- FAO. 2017a. Food and Agriculture Organization. FAO Major Fishing Areas. Atlantic, Northeast (Major Fishing Area 27). CWP Data Collection. In: FAO Fisheries and Aquaculture Department [online]. Rome. Updated 30 January 2017. <http://www.fao.org/fishery/area/Area34/en> [22 September 2017].
- FAO. 2017b. Food and Agriculture Organization. FAO Major Fishing Areas. Atlantic, Northeast (Major Fishing Area 27). CWP Data Collection. In: FAO Fisheries and Aquaculture Department [online]. Rome. Updated 30 January 2017. <http://www.fao.org/fishery/area/Area27/en> [22 September 2017].
- FAO. 2001-2017(c). Food and Agriculture Organization. Regional Fishery Bodies summary descriptions. Fishery Committee for the Eastern Central Atlantic (CECAF). Fishery Governance Fact Sheets. In: FAO Fisheries and Aquaculture Department [online]. Rome. Updated 26 October 2015. <http://www.fao.org/fishery/rfb/cecaf/en#Org-GeoCoverage> [14 October 2017].
- FAO. 2017a. Food and Agriculture Organization. FAO and Regional Fishery Bodies. <http://www.fao.org/fishery/topic/16918/en> [22 September 2017].
- FAO. 2017b. Food and Agriculture Organization. Regional bodies involved in the management of deep-sea fisheries. <http://www.fao.org/in-action/vulnerable-marine-ecosystems/background/regional-fishery-bodies/en/> [22 September 2017].
- Goulding I. and Megapesca Lda. 2016. Research for Pech Committee – Impact on Fisheries Partnership Agreement on Employment in the EU and in the Third Countries. Directorate-General for



internal policies. Policy Department B: Structural and Cohesion Policies. European Parliament. Study, p. 1-64.

ICES. 2004. International Council for the Exploration of the Sea. Ecoregions based on ICES Advice ACFM/ACE report (2004) ICES Convention area (FAO area 27) includes regions A-G, L Zones H-J, M are outside the ICES area. [http://www.ices.dk/marine-data/maps/Documents/ICES\\_Ecoregions.pdf#search=area](http://www.ices.dk/marine-data/maps/Documents/ICES_Ecoregions.pdf#search=area) [13 October 2017].

ICES. 2017. International Council for the Exploration of the Sea. <http://www.ices.dk/Pages/default.aspx> [13 October 2017].

ICCAT Secretariat. 2006. International Commission for the Conservation of Atlantic Tuna. ICCAT Manual. In: ICCAT Publications [on-line]. Updated 2016. <https://www.iccat.int/en/ICCATManual.asp?mId=4> [11 October 2017].

ICCAT Secretariat. 2016. International Commission for the Conservation of Atlantic Tuna. Convention Area. <https://www.iccat.int/en/convarea.htm> [11 October 2017].

INE, 2013. Instituto Nacional de Estatística Estatísticas do Turismo 2012 - Movimentação de Hóspedes. <http://ine.cv/wp-content/uploads/2016/11/estatisticas-do-turismo-ano-2012.pdf> [July 2018]

INE, 2017. Instituto Nacional de Estatística Estatísticas do Turismo – Ano 2016. [http://ine.cv/wp-content/uploads/2017/03/turismo\\_2016\\_rev1.pdf](http://ine.cv/wp-content/uploads/2017/03/turismo_2016_rev1.pdf) [July 2018]

International Agreement L 210/1. 2013. Internal Agreement, between the Representatives of the Governments of the Member States of the European Union, meeting within the Council, on the financing of European Union aid under the multiannual financial framework for the period 2014 to 2020, in accordance with the ACP-EU Partnership Agreement, and on the allocation of financial assistance for the Overseas Countries and Territories to which Part Four of the Treaty on the Functioning of the European Union applies. Official Journal of the European Union, p. 1-14.

Jensen H.M., Panagiotidis P., Reker J. 2017. Technical document on the delineation of MSFD Article 4 marine regions and sub-regions. European Environment Agency, pp. 1-21. <https://www.eea.europa.eu/data-and-maps/data/msfd-regions-and-subregions-1#tab-documents> [15 October 2017].

Ley Orgánica 4/1996. BOE núm 305. Jefatura del estado. Disposiciones Generales, p. 38905 – 38912.

Lopez-Guzman T., Borges O. and Cerezo J. M. 2011. Community-based tourism and local socio-economic development: A case study in Cape Verde, African Journal of Business Management, 5(5), pp. 1608–1617. [July 2018]

MAC 2014-2020. Programa de Coperación Madeira-Açores-Canarias (MAC) 2014 – 2020. Cooperacion Territorial. Interreg, Fondo Europeo de Desarrollo Regional. <https://www.mac-interreg.org/> [04 July 2017].

MAC 2014-2020. Programa de Coperación Madeira-Açores-Canarias (MAC) 2014 – 2020. RegioPlus Consulting. Diagnóstico Territorial y Analysis DAFO del espacio de cooperación MAC, p. 1-119.

MAC 2014-2020. Listado de proyectos aprobados y beneficiarios 1ª convocatoria, 2014. MAC 2014-2020 Cooperación territorial. <https://www.mac-interreg.org/arborel/index.jsp?nivel=1&idPadre=e742aaf09ff6c42bc15dbc5c0bd9a39d&id=39a230bf-7989-4dc4-a2c4-08acc70ed0eb> [23 June 2017].

Madruza L., Wallenstein F., Azevedo J.M.N. 2016. Regional ecosystem profile–Macaronesian Region. EU Outermost Regions and Overseas Countries and Territories. BEST, Service contract 07.0307.2013/666363/SER/B2, European Commission, p. 1– 324.

Marchante, V. J. N. 2011. Problemática jurídica sobre la delimitación de los espacios marítimos del archipiélago canario (a propósito de la ley 44/2010). *Revista de Derecho Político*, (80), 150.

Martinos H., Guillermo M., Sanka J.L., Hernández Rivero A., Perou M.L. 2014. Association of European Border Regions (AEBR). EU Commission. Directorate-General for Regional and Urban Policy Final



Report DG Regio. Cross-Border Cooperation in West Africa: support to integrated and sustainable development and cross-border cooperation between Macaronesia, Cape Verde and Senegal.

Matos R. 2002. Naturalistes, malades, tourists: la naissance du tourisme à Tenerife, îles Canaries, 1850-1914. *Le Globe. Revue genevoise de géographie*, 142(1), 113-135.  
[https://www.persee.fr/doc/globe\\_0398-3412\\_2002\\_num\\_142\\_1\\_1455](https://www.persee.fr/doc/globe_0398-3412_2002_num_142_1_1455) [July 2018]

Matilde V., Carmen-Paz M. and Priit O. 2017. Fisheries in Madeira. DG IPOL Policy Department B for Structural and Cohesion Policies. European Parliament.  
[http://www.europarl.europa.eu/RegData/etudes/IDAN/2017/601978/IPOL\\_IDA\(2017\)601978\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/IDAN/2017/601978/IPOL_IDA(2017)601978_EN.pdf) [July 2018]

NEAFC. 2004. North East Atlantic Fishery Commission. Convention on future multilateral cooperation in North-East Atlantic fisheries, pp: 1-11. <https://www.neafc.org/system/files/Text-of-NEAFC-Convention-04.pdf> [13 October 2017].

NEAFC. 2011a. North East Atlantic Fishery Commission. Basic Text. <https://www.neafc.org/basictexts> [29 September 2017].

NEAFC. 2011b. North East Atlantic Fisheries Commission. Map showing NEAFC Regulatory Areas. <http://www.neafc.org/page/27> [13 October 2017].

Nshimyumuremyi A. 2018. African Economic Outlook Country Note, Cabo Verde.  
[https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/country\\_notes/Cabo\\_Verde\\_country\\_note.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/country_notes/Cabo_Verde_country_note.pdf) [July 2018]

OPA. 2014. Office of Ocean and Polar Affairs. Limits of the Sea. Cabo Verde Archipelagic and Other Maritime Claims and Boundaries, s.l.: Office of Coean and Polar Affairs.

OSPAR Commission. 2015a. Convention for the Protection of the Marine Environment of the North-East Atlantic, protecting and conserving the North East Atlantic and its resources. <https://www.ospar.org/about> [13 October 2017].

OSPAR Commission. 2015b. Convention for the Protection of the Marine Environment of the North-East Atlantic, protecting and conserving the North East Atlantic and its resources. Abidjan Convention. <https://www.ospar.org/about/international-cooperation/abidjan-convention> [14 October 2017].

Popescu I., Ortega Gras J.J. 2013. Fisheries in the Canary Islands. Policy Department B: Structural and Cohesion Policies. European Parliament  
[http://www.europarl.europa.eu/RegData/etudes/note/join/2013/495852/IPOL-PECH\\_NT\(2013\)495852\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/note/join/2013/495852/IPOL-PECH_NT(2013)495852_EN.pdf) [July 2018]

Popescu. 2016. At a glance, Plenary – 4 May 2016. EU-Mauritania fisheries agreement: New Protocol. EPRS, European Parliamentary Research Service, p. 1.

PSOEM, 2017. Plano de Situação do Ordenamento do Espaço Marítimo Nacional. Ordenamento do Mar Português. <http://www.psoem.pt/> [15 October 2017].

Ramalho, R.A.S. 2011. The Cape Verde Archipelago. In *Building the Cape Verde Islands*. Springer Berlin Heidelberg, p. 13–26

Regulation (EU) No 1380/2013, of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC. *Official Journal of European Union*, p. 1-40.

Regional ecosystem profile–Macaronesian Region. 2016. EU Outermost Regions and Overseas Countries and Territories, Luisa Madruga, Francisco Wallenstein, José Manuel N. Azevedo. BEST, Service contract 07.0307.2013/666363/SER/B2, European Commission, 233 p + 10 Appendices.  
[http://ec.europa.eu/environment/nature/biodiversity/best/pdf/best-ecosystem\\_profile\\_macaronesia\\_2016.pdf](http://ec.europa.eu/environment/nature/biodiversity/best/pdf/best-ecosystem_profile_macaronesia_2016.pdf) [9 July 2018]

RFI. 2014. RFI Portugues. Cabo Verde já faz parte do cluster marítimo da Macaronésia.



<http://pt.rfi.fr/africa/20141109-cabo-verde-ja-faz-parte-do-cluster-marinhomaritimo-da-macaronesia> [17 September 2017]

Ribeiro M. A., Valle P. O. D. and Silva J. A. 2013. Residents' attitudes towards tourism development in Cape Verde Islands. *Tourism Geographies*, 15(4), 654-679.  
<https://www.tandfonline.com/doi/abs/10.1080/14616688.2013.769022> [July 2018]

Rosado A.S. 2014. El nuevo mapa marítimo de Portugal y el caso de las Islas Salvajes. *Revista electrónica de estudios internacionales (REEI)*, (28), 1-29.

Spalding M.D., Fox H.E., Allen G.R., Davidson N., Ferdana Z.A., Finlayson M.A.X., Halpern B.S., Jorge M.A., Lombana A.L., Lourie S.A. and Martin K.D., 2007. Marine ecoregions of the world: a bioregionalization of coastal and shelf areas. *BioScience*, 57(7), pp.573-583.

SREA. 2018. *Statistic Series 2011—2017. Statistics by subject - Tourism*.  
[https://srea.azores.gov.pt/Conteudos/Relatorios/lista\\_relatorios.aspx?idc=29&idsc=1123&lang\\_id=2](https://srea.azores.gov.pt/Conteudos/Relatorios/lista_relatorios.aspx?idc=29&idsc=1123&lang_id=2) [July 2018]

SRFC. 2016. Sub-Regional Fishery Commission. Presentation. <http://www.spcsrp.org/en/presentation> [14 October 2017].

Suarez de Vivero J.L. and Rodriguez Mateos J.C. 2007. Atlas of the European Seas and Oceans. Marine jurisdictions, sea uses and governance. [http://www.marineplan.es/ES/ATLAS\\_EUROPA.pdf](http://www.marineplan.es/ES/ATLAS_EUROPA.pdf) [3 July 2017].

Suárez de Vivero J.L. 2011. An Atlas of Maritime Spatial Planning. *Marine Plan*.  
[http://www.marineplan.es/en/ATLAS\\_13\\_06\\_11\\_EN.pdf](http://www.marineplan.es/en/ATLAS_13_06_11_EN.pdf) [15 October 2017].

Suarez de Vivero, J.L. and Rodriguez Mateos, J.C. 2012. The Spanish approach to marine spatial planning. *Marine Strategy Framework Directive vs. EU integrated maritime policy*. *Marine Policy*, 36(1), pp.18-27.

Support team for the Atlantic Action Plan. 2016. Themes. <http://www.atlanticstrategy.eu/en/themes> [22 September 2017].

SwAM, 2013. International Gathering in Sweden for Protecting Environment in North-East Atlantic. <https://www.havochvatten.se/en/swam/our-organization/press-and-media/press-releases/press-releases/2013-12-03-international-gathering-in-sweden-for-protecting-environment-in-north-east-atlantic.html> [15 October 2017].

Swan J. 2003. Summary information on the role of international fishery organizations or arrangements and other bodies concerned with the conservation and management of living aquatic resources. *FAO of the United Nations*, pp. 1- 74.

Tavares A.J.C. 2013. Cape Verde and the challenges of contemporary internacional politics. *Revista Estudos Politicos*, 2(7).

TFEU. 2012. Treaty on the Functioning of the European Union. Consolidated Version of the Treaty on the Functioning of the European Union. *Official Journal of European Union*. (C) 326, p. 47- 390.

Tovar B., Hernandez R. and Rodriguez-Deniz H. 2015. Container port competitiveness and connectivity: The Canary Islands main ports case. *Transport Policy*. vol. 38. p. 40-51.  
<https://www.sciencedirect.com/science/article/pii/S0967070X14002261#f0010> [July 2018]

Tuya F. and Haroun R.J. 2009. Phytogeography of Lusitanian Macaronesia: biogeographic affinities in species richness and assemblage composition. *European Journal of Phycology*, 44(3), pp.405-413.

UEMOA. 2017. West African Economic Monetary Union. Eight countries, a common destiny. Presentation of UEMOA. <http://www.uemoa.int/en/presentation-uemoa> [20 September 2017].

UN. 1982. United Nations. United Nations Convention on the Law of the Sea (UNCLOS). 195pp+12pp (annexes).

UN. 2017. United Nations. Cabo Verde creates and implements comprehensive frameworks for



maritime sector planning and threat management by National Directorate of Environment (Government). #OceanAction17860. The Ocean Conference. United Nation, New York 5-9 June 2017. <https://oceanconference.un.org/commitments/?id=17860> [15 October 2017].

Whittaker R.J. and Fernández-Palacios J.M. 2007. Island Biogeography. Ecology, Evolution and Conservation. London, UK: Oxford University Press.