

# CONTENT

<i>CONTENT</i> .....	2
<i>List of Maps</i> .....	6
<i>List of Tables</i> .....	13
<i>List of Figures</i> .....	16
<i>Appendices</i> .....	17
<i>DISCLAIMER</i> .....	19
<i>EXPLANATORY NOTE</i> .....	20
1. INTRODUCTION.....	21
2. ATLANTIC REGIONAL GEOPOLITICAL CONTEXT .....	22
2.1. General overview.....	23
2.1.1. Macaronesia as ecosystem .....	27
2.1.2. Macaronesia and planning geographical scope .....	28
2.1.3. Macaronesia as political entity .....	31
2.2. Planning Scope in its Context .....	32
2.2.1. Portuguese and Spanish maritime jurisdictions. An overview .....	33
2.2.2. Planning scope in the Macaronesian context .....	35
2.2.3. Planning scope in the North Atlantic context .....	37
2.2.4. Planning scope in the EU context.....	39
2.3. Major Territorial Divisions .....	41

2.3.1.	Assessment of Assessments.....	43
2.3.2.	FAO Fishing Areas.....	45
2.3.3.	FAO Regional Fishery Bodies.....	47
2.3.4.	UNEP Regional Seas Programme.....	53
2.3.5.	IHO Marine Regions .....	55
2.3.6.	Worldwide Met-Ocean Information and Warning Service (WWMIWS) Metareas .....	57
2.3.7.	ICES Advisory Areas.....	59
2.3.8.	Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) .....	61
2.3.9.	ASCOBANS Agreement Areas.....	63
2.3.10.	Large Marine Ecosystems .....	65
2.3.11.	Biogeographical provinces (Longhurst) .....	67
2.3.12.	Marine Ecoregions of the World (Spalding) .....	69
2.3.13.	Major EU Framework Directives.....	71
2.3.14.	Regional Advisory Councils.....	75
2.3.15.	Search and Rescue Regions (An approach) .....	78
2.3.16.	Organisation for Economic Co-operation and Development (OECD) .....	80
2.3.17.	North Atlantic Treaty Organization .....	81
2.3.18.	Conference of Peripheral Maritime Regions (CPMR).....	85
2.3.19.	Classification of Territorial Units for Statistics (NUTS).....	86
3.	THE MACARONESIAN REGION .....	87
3.1.	Scope and Boundaries .....	88

3.1.1.	Planning scope borders. Outer borders .....	99
3.1.2.	Planning scope borders. Inner borders .....	100
3.2.	Islands and Insularity .....	103
4.	USES AND ACTIVITIES .....	109
4.1.	Socioeconomic framework .....	110
4.2.	Uses and Activities .....	116
4.2.1.	Fisheries and fishing grounds .....	117
4.2.2.	Infrastructures and facilities for the exploration, exploitation and extraction of oil, gas and other energy resources, of minerals and aggregates, and for the production of energy from renewable sources .....	131
4.2.3.	Maritime transport routes and traffic flows .....	146
4.2.4.	Military exercise areas .....	168
4.2.5.	Nature and species conservation sites and protected areas .....	170
4.2.6.	Submarine cables and pipeline routes .....	181
4.2.7.	Tourism .....	183
4.2.8.	Underwater heritage .....	184
4.2.9.	Waste Disposal, spoils and dumpings .....	189
5.	NATIONAL-SUBNATIONAL SCALE AND MSP .....	190
5.1.	Political-administrative organization of Azores .....	193
5.1.1.	Azores. Regional Level .....	195
5.1.2.	Azores. Insular level .....	196
5.1.3.	Maritime jurisdictions of Azores .....	200

5.2.	Political-administrative organization of Madeira .....	203
5.2.1.	Madeira. Regional Level .....	205
5.2.2.	Madeira. Insular level.....	206
5.2.3.	Maritime jurisdictions of Madeira .....	207
5.3.	Political-administrative organization of the Canary Islands.....	209
5.3.1.	Canary Islands. Regional Level .....	211
5.3.2.	Canary Islands. Insular level (Cabildos) .....	213
5.3.3.	Maritime jurisdictions of the Canary Islands .....	217
5.4.	Regulations related to marine/maritime planning .....	222
5.4.1.	Spanish Law 44/2010. “Canarian Waters” .....	225
5.4.2.	Water Framework Directive .....	228
5.5.	Spatial Planning .....	237
5.5.1.	Spatial planning .....	239
6.	MSP ZONNING PROPOSALS .....	278
6.1.	Land-sea interaction .....	281
6.2.	General zoning.....	286
	<i>GLOSSARY</i> .....	297
	Jurisdictional concepts .....	297
	Commission of the limits of the continental shelf (CLCS) .....	299
	Territorial organization of Portugal and Spain .....	300
	Territorial organization. Spain. ....	301

Territorial organization. Portugal .....	302
Spatial planning of marine and terrestrial space .....	302
Land-sea interaction .....	305
Cross-border maritime spatial planning.....	306
Marine regionalization .....	307
Fisheries.....	308
Economy .....	308
<i>BIBLIOGRAPHY AND SOURCES</i> .....	310
<i>Bibliography</i> .....	310
<i>Datasets</i> .....	310
<i>Legislation</i> .....	315
<i>INDEX</i> .....	317
<i>APPENDIX</i> .....	320
Appendix 1. Matrix of boundaries identified in planning scope.....	321
Appendix 2. List of local entities according to their statistical code .....	322
Appendix 3. List of Protected Areas in Planning Scope. ....	332

### *LIST OF MAPS*

Map 1. Macaronesia as ecosystem .....	27
Map 2. Macaronesia and planning geographical scope.....	28
Map 3. Macaronesia as political entity .....	31

Map 4.	Portuguese and Spanish Maritime Jurisdictions.....	34
Map 5.	Maritime jurisdictions of states with presence in Macaronesia .....	36
Map 6.	Planning scope in the North Atlantic context.....	38
Map 7.	Planning scope in the EU context .....	40
Map 8.	Assessment of Assessments Regions.....	44
Map 9.	FAO Fishing Areas .....	46
Map 10.	FAO Regional Fishery Bodies. International Commission for the Conservation of Atlantic Tunas. (ICCAT) .....	48
Map 11.	FAO Regional Fishery Bodies. North Atlantic Salmon Conservation Organization (NASCO).....	49
Map 12.	FAO Regional Fishery Bodies. International Council for the Exploration of the Sea (ICES).....	50
Map 13.	FAO Regional Fishery Bodies. North Atlantic Marine Mammal Commission (NAMMCO) .....	51
Map 14.	FAO Regional Fishery Bodies. North East Atlantic Fisheries Commission (NEAFC) .....	52
Map 15.	UNEP Regional Seas Programme .....	54
Map 16.	IHO Marine Regions .....	56
Map 17.	WWMIWS Metareas .....	58
Map 18.	ICES Advisory Areas.....	60
Map 19.	Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR).....	62
Map 20.	ASCOBANS Agreement Areas.....	64
Map 21.	Large Marine Ecosystems .....	66
Map 22.	Biogeographical provinces (Longhurst) .....	68
Map 23.	Marine Ecoregions of the World (Spalding).....	70
Map 24.	Ecoregions EU Water Framework Directive .....	72

Map 25.	EU Marine Strategy Framework Directive .....	74
Map 26.	Regional Advisory Councils .....	76
Map 27.	Regional Advisory Councils. Subdivisions in Planning Scope.....	77
Map 28.	Search and Rescue Regions.....	78
Map 29.	Search and Rescue Regions Borders in Planning Scope. An approach.....	79
Map 30.	Organisation for Economic Co-operation and Development (OCDE).....	80
Map 31.	Planning Scope in NATO Context .....	81
Map 32.	North Atlantic Treaty Organization.....	82
Map 33.	Commanders' Areas of Responsibility (N.A.T.O.) .....	84
Map 34.	Conference of Peripheral Maritime Regions (CPMR) .....	85
Map 35.	Classification of Territorial Units for Statistics (NUTS) .....	86
Map 36.	Planning Scope Outermost Borders.....	97
Map 37.	Planning scope borders.....	99
Map 38.	Inner Borders .....	101
Map 39.	Contact between states. Triple points in planning scope.....	102
Map 40.	National Fishing Ground of Canary Islands.....	117
Map 41.	Fishery Grounds surrounding Canary Islands .....	118
Map 42.	Fishery quotas assigned by Council Regulation (EU) 2018/120 .....	120
Map 43.	Aquaculture, fishery protection areas and marine protected areas in Azores I .....	121
Map 44.	Aquaculture, fishery protection areas and marine protected areas in Azores II .....	122
Map 45.	Aquaculture, fishery protection areas and marine protected areas in Azores III .....	123

Map 46.	Aquaculture areas and marine protected areas in Madeira .....	124
Map 47.	Potential aquaculture areas and marine protected areas in Canary Islands I.....	125
Map 48.	Potential aquaculture areas and marine protected areas in Canary Islands II.....	126
Map 49.	Potential aquaculture areas and marine protected areas in Canary Islands III .....	127
Map 50.	Location of Deep Sea Mineral Resources in Azores surrounding waters .....	132
Map 51.	Location of Deep Sea Mineral Resources in Azores surrounding waters (according to EMODnet).....	133
Map 52.	Location of Deep Sea Mineral Resources in Madeiran surrounding waters (according to EMODnet).....	134
Map 53.	Location of Deep Sea Mineral Resources in Canarian surrounding waters (according to EMODnet) .....	135
Map 54.	Location of Hydrocarbon Extraction and Exploration Areas in Planning Scope .....	136
Map 55.	Aggregates and Dredging locations .....	137
Map 56.	Sand Mining in Azores I.....	138
Map 57.	Sand Mining in Azores II.....	139
Map 58.	Sand Mining in Azores III.....	140
Map 59.	Offshore windfarms (Gran Canaria).....	141
Map 60.	Ocean energy facilities in Azores .....	142
Map 61.	Ocean energy facilities in Canary Islands.....	143
Map 62.	Water infrastructures. Madeira .....	144
Map 63.	Water infrastructures. Canary Islands .....	145
Map 64.	Maritime waterways in Planning Scope .....	147
Map 65.	CO <sub>2</sub> flow patterns derived from maritime traffic in North Atlantic Ocean .....	148
Map 66.	CO <sub>2</sub> flow patterns derived from maritime traffic in Planning Scope .....	149



Map 67.	Ports in Macaronesia. Azores and Madeira .....	150
Map 68.	Ports in Macaronesia. Canary Islands .....	151
Map 69.	Ports infrastructures. Hypothetical area of influence (1,5 nm). Azores (I) .....	152
Map 70.	Ports infrastructures. Hypothetical area of influence (1,5 nm). Azores (II) .....	153
Map 71.	Ports infrastructures. Hypothetical area of influence (1,5 nm). Azores (III) .....	154
Map 72.	Ports infrastructures. Hypothetical area of influence (1,5 nm). Azores (IV) .....	155
Map 73.	Ports infrastructures. Hypothetical area of influence (1,5 nm). Azores (V) .....	156
Map 74.	Ports infrastructures. Hypothetical area of influence (1,5 nm). Azores (VI) .....	157
Map 75.	Ports infrastructures. Hypothetical area of influence (1,5 nm). Canary Islands (I) .....	158
Map 76.	Ports infrastructures. Hypothetical area of influence (1,5 nm). Canary Islands (II) .....	159
Map 77.	Lightening Space. Lighthouses in Azores .....	164
Map 78.	Lightening Space. Lighthouses in Madeira .....	165
Map 79.	Lightening Space. Lighthouses in Canary Islands.....	166
Map 80.	Spanish Army Military Training Areas in Canary Islands.....	168
Map 81.	Spanish Army Training Areas and Protected Areas in Canary Islands .....	169
Map 82.	World Database of Protected Areas – Planning Scope.....	171
Map 84.	Natura 2000 Network members in Planning Scope. General Overview .....	175
Map 85.	Natura 2000 Network members. Azores .....	176
Map 86.	Natura 2000 Network members. Madeira and Canary Islands .....	177
Map 87.	Network of Spanish Marine Protected Areas (RAMPE).....	178
Map 88.	Particularly Sensitive Sea Area (PSSA) of Canary Islands.....	179

Map 89.	Lighthouses, PSSA and traffic in Canary Islands .....	180
Map 90.	Submarines cables in North Atlantic Ocean (EMODnet) .....	182
Map 91.	Underwater Heritage in Azores I .....	184
Map 92.	Underwater Heritage in Azores II .....	185
Map 93.	Underwater Heritage in Azores III .....	186
Map 94.	Underwater Heritage in Azores IV .....	187
Map 95.	Underwater Heritage in Azores V .....	188
Map 96.	Dumped munitions and Dredge spoils in Planning Scope .....	189
Map 97.	Macaronesian Regions in Planning Scope .....	192
Map 98.	Azores Archipelago. Place names .....	194
Map 99.	Autonomous Region of Azores .....	195
Map 100.	Local organization of Corvo and Flores.....	196
Map 101.	Local organization of Graciosa and Terceira.....	197
Map 102.	Local organization of São Jorge, Faial and Pico .....	198
Map 103.	Local organization of São Miguel and Santa Maria .....	199
Map 104.	Corvo and Flores. Territorial Sea and Internal Waters. ....	200
Map 105.	Faial, Graciosa, Pico, São Jorge and Terceira. Territorial Sea and Internal Waters.....	201
Map 106.	São Miguel and Santa Maria. Territorial Sea and Internal Waters.....	202
Map 107.	Madeira Archipelago. Place names .....	204
Map 108.	Autonomous Region of Madeira (including Selvagens).....	205
Map 109.	Local organization of the Madeiran islands.....	206

Map 110. Desertas, Madeira and Porto Santo. Territorial Sea and Internal Waters. ....	207
Map 111. Savages islands. Territorial Sea.....	208
Map 112. Canary Islands. Place names. ....	210
Map 113. Autonomous Region of Canary Islands .....	211
Map 114. Provinces of Canary Islands .....	212
Map 115. Island councils of Canary Islands .....	213
Map 116. Local organization of El Hierro and La Palma .....	214
Map 118. Local organization of Gran Canaria, Fuerteventura and Lanzarote.....	216
Map 119. El Hierro. Territorial Sea and Internal Waters. ....	217
Map 120. La Palma. Territorial Sea and Internal Waters.....	218
Map 121. La Gomera and Tenerife. Territorial Sea and Internal Waters. ....	219
Map 122. Gran Canaria. Territorial Sea and Internal Waters. ....	220
Map 123. Fuerteventura and Lanzarote. Territorial Sea and Internal Waters. ....	221
Map 124. Maritimes Zones. Law 17/2014, 10 April establishing the Basis of the Policy for the Marine Spatial Planning and Management of the National Maritime Space.....	223
Map 125. Spanish Marine Demarcations according to Law 41/2010.....	224
Map 126. Spanish Law 44/2010. “Canarian Waters” .....	227
Map 127. Water bodies according to Water Framework Directive. Azores I.....	229
Map 128. Water bodies according to Water Framework Directive. Azores II.....	230
Map 129. Water bodies according to Water Framework Directive. Madeira .....	231
Map 130. Water bodies according to Water Framework Directive. Canary Islands I .....	232

Map 131. Water bodies according to Water Framework Directive. Canary Islands II .....	233
Map 132. Coastal Waters and Canarian Waters (Spanish Law 44/2010) .....	236
Map 133. Marine areas in Azores affected by regional planning .....	251
Map 134. Marine areas in Canary Islands affected by regional planning.....	273
Map 135. Marine areas regulated by regional planning. Tenerife and Gran Canaria in detail .....	274
Map 136. Maritime Spatial Planning: Zoning Framework (III) .....	285
Map 137. Zonning Proposal for Planning Scope. Overview .....	287
Map 138. Zonning Proposal for Planning Scope. Overview considering Canarian waters .....	288
Map 139. Zonning proposal for Madeiran Exclusive Economic Zone .....	289
Map 140. Zonning proposal for Azorean Exclusive Economic Zone .....	290
Map 141. Zonning proposal for Portuguese Extended Continental Shelf .....	291
Map 142. Zonning proposal for Canary Islands Maritime Jurisdictions.....	292
Map 143. Zonning proposal for Canary Islands Maritime Jurisdictions. Adding Canarian Waters (I) .....	293
Map 144. Zonning proposal for Canary Islands Maritime Jurisdictions. Adding Canarian Waters (II) .....	294
Map 145. Proposal for a global network of marine reserves – Greenpeace .....	296

### *LIST OF TABLES*

Table 1. Planning Scope. Maritime Jurisdictions .....	24
Table 2. Coordinates of Planning Scope and Archipelagos .....	29
Table 3. Distance between Macaronesian archipelagos and the continents .....	30
Table 4. Portuguese and Spanish maritime jurisdictions .....	33

Table 5.	Maritime jurisdictions of states with presence in Macaronesia .....	35
Table 6.	Planning scope in the North Atlantic context .....	37
Table 7.	Planning scope in the EU context .....	39
Table 8.	Major Divisions located in Planning Scope .....	42
Table 9.	Assessment of Assessments Regions.....	43
Table 10.	FAO Fishing Areas .....	45
Table 11.	FAO Regional Fishery Bodies. Area .....	47
Table 12.	UNEP Regional Seas Programme .....	53
Table 13.	IHO Marine Regions .....	55
Table 14.	WWMIWS Metareas .....	57
Table 15.	ICES Advisory Areas.....	59
Table 16.	Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR).....	61
Table 17.	ASCOBANS Agreement Areas.....	63
Table 18.	Large Marine Ecosystems .....	65
Table 19.	Biogeographical provinces (Longhurst) .....	67
Table 20.	Marine Ecoregions of the World (Spalding).....	69
Table 21.	Ecoregions EU Water Framework Directive .....	71
Table 22.	EU Marine Strategy Framework Directive .....	73
Table 23.	Regional Advisory Councils .....	75
Table 24.	Commanders' Areas of Responsibility (N.A.T.O.) .....	83
Table 25.	Planning Scope outer borders.....	96

Table 26.	Borders of Planning Scope Countries Shared With Third Countries .....	98
Table 27.	Inner borders .....	100
Table 28.	Islands in Planning Scope. Surrounding waters and Area .....	104
Table 29.	Matrix of Distances between Islands in Planning Scope .....	105
Table 30.	Condition of compactness of inhabited islands in planning scope .....	108
Table 31.	Population of Portuguese archipelagos by islands and regions .....	112
Table 32.	Population of Canary Islands by islands and regions.....	113
Table 33.	Classification of Macaronesian Ports according to Lloyd’s Maritime Atlas (2016) .....	160
Table 34.	Azores and Madeira Ports ownership.....	162
Table 35.	Canary Islands Ports ownership.....	163
Table 36.	List of main lighthouses in Macaronesia and their light range (nm) .....	167
Table 37.	Natura 2000 Network members. Area, Number and Type of Special Areas of Conservation (SAC) in Planning Scope. ....	174
Table 38.	Spanish Law 44/2010. “Canarian Waters” I.....	226
Table 39.	Spanish Law 44/2010. “Canarian Waters” II.....	226
Table 40.	Water Framework Directive. Surface of water bodies and jurisdictions involved .....	228
Table 41.	Coastal Waters and Canarian Waters (Spanish Law 44/2010) .....	235
Table 42.	Spatial Planning tools in Azores .....	239
Table 43.	Plano Regional de Ordenamento do Território dos Açores.....	242
Table 44.	Sectorial Plans in Azores .....	243
Table 45.	Planos de Ordenamento da Orla Costeira. Azores .....	245
Table 46.	Marine areas affected by regional planning in Azores .....	250

Table 47. Spatial Planning Tools in Madeira.....	252
Table 48. Sectorial Plans. Madeira .....	253
Table 49. Spatial and Resources Planning in Canary Islands .....	254
Table 50. Spatial Planning Tools in Canary Islands .....	255
Table 51. Insular Plans in Canary Islands. Synthesis.....	256
Table 52. Special Territorial Plans in Canary Islands .....	269
Table 53. List of plans and normative relative to protected natural areas and areas related to Natura 2000 Network .....	271
Table 54. Marine areas affected by regional planning in Canary Islands.....	272
Table 55. Zonning Proposal for Planning Scope .....	295
Table 56. Azorian municipalities and their statistical code.....	322
Table 57. Madeiran municipalities and their statistical code.....	327
Table 58. Canarian municipalities and their statistical code.....	328

### *LIST OF FIGURES*

Figure 1. Continental Shelf. Block Diagram .....	25
Figure 2. Contacts among maritime jurisdictions. Typology .....	90
Figure 3. Maritime jurisdictions and boundaries. Contact between national jurisdiction and ABNJ (Western Sahara) .....	91
Figure 4. Maritime jurisdictions and boundaries. Contact between national jurisdiction and ABNJ .....	92
Figure 5. Maritime jurisdictions and boundaries. Contact between national jurisdictions .....	93
Figure 6. Maritime jurisdictions and boundaries. Savage Islands I. ....	94
Figure 7. Maritime jurisdictions and boundaries. Savage Islands II. ....	95
Figure 8. Comparing Land and Maritime Jurisdictions surface in Macaronesia (by state)(km <sup>2</sup> ).....	106

Figure 9. Comparing Land and Maritime Jurisdictions surface (by archipelago) (km <sup>2</sup> ).....	107
Figure 10. Maritime Jurisdictions and GDP.....	111
Figure 11. Population Density in Macaronesia (Inhabitants / Km <sup>2</sup> ) .....	114
Figure 12. Primary income of private households by NUTS 2 regions .....	115
Figure 13. Fishery quotas assigned by Council Regulation (EU) 2018/120 .....	119
Figure 14. Fisheries by island, value and weight (2016).....	128
Figure 15. Fishing fleet. Evolution of size (2013-2017).....	129
Figure 16. Fishing fleet (Gross tonnes) and power (Kw). 2017.....	130
Figure 17. Maritime Traffic. Macaronesian Ports (2017) .....	161
Figure 18. Protected Areas by surface and archipelago .....	173
Figure 19. Cruise Dockings (2014).....	183
Figure 20. Coastal Waters of the Water Framework Directive. Comparing Internal Waters and Territorial Sea involved .....	234
Figure 21. Regional planning scope I .....	275
Figure 22. Regional planning scope II .....	276
Figure 23. Regional planning scope III .....	277
Figure 24. Maritime Spatial Planning: Zoning Framework (I) .....	282
Figure 25. Maritime Spatial Planning: Zoning Framework (II) .....	283
Figure 26. Maritime Spatial Planning: Zoning Framework (III) .....	284

## *APPENDICES*

Appendix 1. Matrix of boundaries identified in planning scope .....	321
Appendix 2. List of local entities according to their statistical code .....	322



Appendix 3. List of Protected Areas in Planning Scope..... 332