DGRM DIREÇÃO-GERAL DE RECURSOS NATURAIS, SEGURANÇA E SERVIÇOS MARÍTIMOS

ANNUAL REPORT
PORTUGUESE FISHING FLEET – 2019

1. SUMMARY

❖*Conclusions on the balance between fleet capacity and fishing opportunities*

Combined analysis of the results of the vessel use, biological sustainability and economic indicators shows that the capacity of the Portuguese fleet is in balance with the fishing opportunities in the case of all fleet segments. Management measures aimed at limiting vessel activity were taken in certain segments which displayed some vulnerability, thus bringing the fleet capacity more in line with the available resources.

The seiner segment was perhaps the most vulnerable in the light of the catch limits imposed on sardine in Portugal and Spain within the framework of the 2018-2023 Recovery and Management Plan, which was submitted to the Commission after successive opinions from the International Council for the Exploration of the Sea (ICES). The recommendations referred to the poor state of the stock, although professionals in the sector did not take the same view. Nevertheless, the management and monitoring model adopted for this fishery, which involves the authorities, the sector and the scientific community, has been useful for implementing the considerable restrictions on the capture of sardine, enabling a sustainable socio-economic balance to be maintained in the main fishing communities dependent on the species.

❖*Fleet capacity*

On 31 December 2019, the Portuguese fishing fleet comprised 7,768 vessels with a total gross tonnage of 87,290 GT and a total propulsion power of 345,420 kW.

❖*Description of the major segments*

The seiner and trawler segments accounted for approximately 48% and 13% respectively of the total volume of fresh and chilled fish caught. Atlantic chub mackerel, sardine and horse mackerel are the main species landed in the seiner segment, representing 88.3% of the total landings in that segment. Atlantic chub mackerel stands out as the species most commonly caught by seiners, accounting for about 56.4% (37,483 tonnes). Horse mackerel, Atlantic chub mackerel and blue whiting were the three main species of fresh and chilled fish landed in the trawler segment, representing 68.7% of the total volume of fish landed in that segment. We should underline the proportion of horse mackerel in the total volume landed by trawlers: about 47.1% (8,365 tonnes). The polyvalent fleet segment, which mainly fishes tuna and tuna-like species, Atlantic chub mackerel, octopus and black scabbardfish, landed approximately 39% (53,745 tonnes) of the total catch of fresh and chilled fish.

❖*Entries into and exits from the fleet during 2019*

In 2019, 64 vessels (totalling 6,376 GT and 11,079 kW) entered the national fishing fleet and 140 vessels (totalling 3,640 GT and 8,226 kW) left. The majority of the vessels entering and leaving the fleet were vessels in the polyvalent fishing segment (PGP), most of which did so in the context of renewal of the fishing fleet.

❖*Changes in the resource situation and/or the fishing opportunities*

As regards the state of the resources fished by the Portuguese fleet and subject to total allowable catch (TAC) limits, we have continued to observe positive developments in the abundance and availability of species important to fisheries in Portugal. This is clear from Regulation (EU) 2019/124 of 30 January 2019, as updated. It should be noted that fishing opportunities for TAC species in 2019 increased by 29% compared to 2018, with quota increases for horse mackerel, megrim, red seabream, skates/rays, anglerfish and Norway lobster. The increased fishing opportunities reflect the good state of the stocks, which is undoubtedly linked to responsible management by the national authorities. Furthermore, assessment methodologies have also been frequently reviewed in the light of the work carried out by scientific institutions, particularly those represented on the International Council for the Exploration of the Sea (ICES). This has had direct consequences for our understanding of the state of resources, as well as an impact on fishing opportunities.

Although anchovy was less abundant than in 2018, there were still very high levels of the fish on the western coast. There was therefore a need to increase the quota, which occurred as a result of exchanges with Spain aimed at addressing the abundance of the species.

In the case of sardine, the ICES already recognised the improvement in the state of the resource at the end of 2019 and acknowledged that the species was being managed in accordance with a precautionary fishing rule in light of its low productivity. However, fishing opportunities actually remained at very low levels in 2019, compared to historical levels of fishing. Moreover, restrictive management measures based mainly on agreements between the sector and the authorities, measures limiting daily quantities and possibilities to close fishing activity in real time continued to be implemented.

We should add that the Commission no longer sets TACs for stocks fished in European waters covered by the CECAF and now delegates the task of setting the fishing levels to be requested to the Member States with opportunities in those waters. The Member States base those levels on scientific opinions from national institutions or the ICES.

With regard to the activity of the national fleet operating in external fishing grounds during 2019, external fishing opportunities generally remained relatively stable, with no significant changes to those available to the Portuguese fleet. Nevertheless, as regards the most important fisheries for the national fleet, the most significant changes concerned activity carried out in the context of the:

- NAFO – where there was a 51% decrease in the cod quota for 3M and a 2% increase in the leerfish quota. The quotas for species such as redfish, forkbeard and skates/rays remained the same compared to the previous year. However, the launch of shrimp fisheries, which had been in moratorium since 2010, should be highlighted. Despite the continued application of a management system based on fishing effort rather than TACs, Portugal will be able to fish this species for 17 days.
- NEAFC – where, at its annual meeting held in November 2019, management measures were adopted for 2020, and, in the case of Portugal, a TAC of 5,500 tonnes was adopted for redfish in the Irminger Sea.
- ICCAT – where we should highlight the adoption of a new recommendation that will guide the management of tuna, especially tropical tunas. This new management model will introduce significant changes to the previous regulatory framework as from 2020. This will have implications for the overall TAC and, above all, for the EU quota, with EU fishing opportunities decreasing by 21%. In the longliner segment, the increase in scientific observer activity coverage from 5% to 10% should also be noted. In the case of blue shark, a TAC has been established and divided among the parties, and Portugal has been allocated a quota of 5,363 tonnes. With respect to all the other stocks relevant for Portugal, the status quo will generally be maintained in relation to fishing opportunities and operating conditions.

❖ ***Effort reduction and capacity adjustment schemes***

In 2019, the following fishing effort recovery/adjustment plans and capacity control schemes came into effect:

The Multiannual Plan for Western Waters

The Commission published the Western Waters Management Plan (Regulation (EU) 2019/472 of 19 March 2019) with a view to organising the particular management of the most economically relevant resources in European waters, and specifically to optimising the productive potential of a wide range of resources managed at MSY. This cancelled a number of outstanding recovery plans, even though they were out-of-date in technical terms.

The Fishing Capacity Control Scheme, which involves managing permits in accordance with the objective of aligning fishing capacity with existing opportunities on an annual basis, the principle being to reduce fishing permits for gear that has the greatest environmental impact, particularly towed gear.

The Multiannual Plan for the Conservation and Management of Tropical Tunas (yellowfin tuna (*Thunnus albacares*), bigeye tuna (*Thunnus obesus*) and skipjack tuna (*Katsuwonus pelamis*)), which aims to reduce the current levels of mortality in tropical tuna, particularly bigeye and yellowfin tuna, will be implemented in provisional form for 2020 and 2021, while the Commission obtains additional scientific advice with a view to adopting a long-term strategy.

The Recovery and Management Plan for Sardine Fishing (2018-2023), which was implemented in 2018 on the joint initiative of the Portuguese and Spanish administrations, lays down the quantities that may be fished and establishes measures aimed at managing and monitoring the activity of vessels fishing for sardine. This plan was drawn up in response to ICES Special Request Advice, Bay of Biscay and the Iberian Coast Ecoregion, sr.2017.15, 14 July 2017, which stated that the previous plan was not

precautionary. As the plan seeks to promote the most up-to-date scientific information, it is put into effect through the publication of regular orders making adjustments to effort and implementation.

The Management Plan for European Eel, which has been in force since 2009, establishes effort control measures, catch limits for young eels (glass eels) and adult eels (silver eels), a restriction on recreational fishing and the closed season. In 2018, a new plan entered in force establishing regular reporting and extending the closed season to all Member States (COM(2012) 413 final – 2012/0201 (COD) and Regulation (EU) 2018/120 of 23 January 2018).

❖ ***Compliance with the entries/exits scheme***

The fleet entries and exits scheme is implemented in accordance with Article 22(5) and (6) and Article 23(1) of Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy (CFP). In other words, entries or re-entries of vessels are only permitted if at least the same capacity in terms of gross tonnage (GT) and propulsion power (kW) is withdrawn from the fleet.

In 2019, Portugal complied with the fishing capacity ceilings laid down in Annex II to the CFP Regulation, in the case of the fleet registered on the mainland (MFL) and the fleets registered in the outermost regions.

❖ ***Plans for improving the fleet management system***

In 2019, licensing restrictions for certain types of gear remained in force in the context of improving the fleet management system. Some were aimed at regulating fishing effort and catches of species that are considered more vulnerable or where the levels of fishing are considered less sustainable, while some applied to certain river basins or in the context of establishing marine biodiversity reserves. Restrictions in connection with the granting of new permits were also maintained in order to prevent increases in the fishing effort for the various resources fished and to help maintain the existing balances. Another measure that has been used in managing the fleet is vessel decommissioning, whereby the respective gear is transferred to other vessels remaining active. This ensures greater profitability without any increase in fishing effort.

❖ ***Application of the balance indicators***

Vessel use indicators and economic indicators were calculated in all segments, while biological sustainability indicators were used for the main species that had been fished by Portugal and which had been the subject of an assessment by the International Council for the Exploration of the Sea (ICES).

2. **BALANCE BETWEEN FLEET CAPACITY AND FISHING OPPORTUNITIES**

In 2019, Portugal continued to implement a policy of sustainable exploitation of resources, seeking to reconcile that policy with the balanced management of the capacity of the national fishing fleet. At the same time, measures were taken to improve the safety and habitability of vessels by providing greater safety and better working conditions for crews. However, this is insufficient overall, given the progressive ageing of the fishing fleet.

As regards the balance between fleet capacity and fishing opportunities, the combined application of the biological, economic and activity indicators shows that there are no structurally imbalanced fleet segments. In terms of the coastal fleet, the seiner segment is the most significant with regard to the volume of landings. It also accounts for most of the sardine fishing. Despite the restrictions applicable to sardine, the abundance of anchovy (although levels are lower than in 2018) and the exchanges with Spain regarding this species enabled the economic performance of the seiner segment to remain positive overall. As regards the biological indicators, the segments are generally in biological equilibrium. However, the assessments of the ICES indicated that there were still some problems with respect to sardine.

3. GENERAL DESCRIPTION OF THE FLEET IN TERMS OF FISHERIES

Description of the fleet

On 31 December 2019, the Portuguese fishing fleet consisted of 7,768 vessels with a total gross tonnage of 87,290 GT and a total propulsion power of 345,420 kW. It is spread across the mainland (MFL), the Azores (RAA) and Madeira (RAM).

The national fleet mainly comprises small fishing boats. Around 91% of the registered vessels have an overall length of less than 12 metres and a low gross tonnage, which, as a whole, only accounts for about 14% of the total national tonnage. The average age of the registered fleet is around 35 years and, in terms of the active fleet, around 24 years. Additional information can be found in Annex I, which provides a more detailed breakdown of the national fishing fleet.

Fishing activities carried out

The national fishing fleet comprises the mainland fleet and those of the peripheral regions of Madeira (RAM) and the Azores (RAA). It carries out its fishing activities according to the areas of operation and the gear assigned, which can be divided into the following groups: gillnets and trammel nets (DFN); dredges (DRB); trawls (DTS); traps (FPO); lines and hooks (HOK); *xávega* (beach seines) (MGO); seines (PS); beam trawls (TBB) and polyvalent vessels (MGP, PGP and PMP). Annex II provides a breakdown of the fishing activities carried out, with information on the main species fished, the areas of operation and the proportion of each group's activity in relation to the total active fleet. Annex III shows the situation of the Portuguese fleet on 31 December 2019, by region and licensed gear, according to the segmentation established in the national data collection programme (*PNRD*).

The fishing fleet registered in Madeira is active mainly in subarea 2 of the Madeira EEZ, with vessels operating at certain times of the year in the waters of the Azores and the Canary Islands, under reciprocal agreements and in international CECAF waters. This fleet, which is mostly polyvalent, is licensed in the main for pole and line, deep-water longline and seine fishing. The most commonly fished species are tuna, black scabbardfish and small pelagics (Atlantic chub mackerel and blue jack mackerel), which represent around 91% of the fish landed. Coastal demersal species and shellfish account for around 9% of the total volume of fish landed in the region and are caught mainly by bottom-set lines, handlines, traps and harvesting tools in the case of shellfish (limpets).

The fishing fleet of the Azores (RAA) is a small-scale fleet which consists mainly of vessels less than nine metres in length. In 2019, such vessels still accounted for approximately 63% of the total fishing fleet in the Azores (Figure 1), although this percentage has been falling over time.

In the Azores, the fishing fleet is dominated by vessels operating with hooks and lines, which account for 85% of the region's total active fleet (Figure 2). The remaining vessels carry out their activity mostly using gillnets, seines and lift nets aimed at catching small pelagic species.

Figure 1 – Composition of the Azores fleet by length class

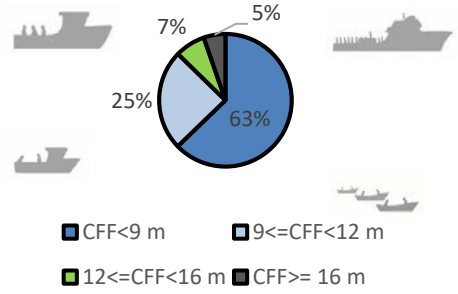
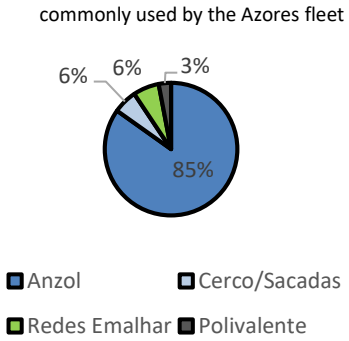


Figure 2 – Composition in terms of groups of fishing gear most commonly used by the Azores fleet



Portuguese	English
CFF	Overall length
Anzol	Hooked gear
Cerco/Sacadas	Seines/lift nets
Redes Emalhar	Gillnets
Polivalente	Polyvalent gear

As regards the activity of the national fleet operating in external fishing grounds during 2019 and activity under Sustainable Fisheries Partnership Agreements (SFPAs), it is only necessary to indicate the activity carried out by the national fleet operating under the EU-Morocco SFPA, with authorisation to fish issued under Category 4 of that agreement.

On the subject of these fisheries agreements, we should also highlight the EU's conclusion of new SFPAs with Morocco, Guinea-Bissau, São Tomé and Príncipe and Senegal, as well the provision application of the Agreement with Mauritania in the form of an exchange of letters.

As an EU Member State, Portugal benefits from fishing opportunities under the SFPAs in force with the following countries: Morocco, Guinea-Bissau, Cape Verde, Senegal, São Tomé and Príncipe and Mauritania.

As regards the EU-Norway Fisheries Agreement, which covers the waters around Svalbard, the Portuguese fleet maintained its pattern of activity of recent years, i.e. the regular presence of two fishing units primarily involved in cod fishing.

As regards Regional Fisheries Management Organisations (RFMOs), the activity carried out by national vessels in 2019 was mainly within the framework of the International Commission for the Conservation of Atlantic Tunas (ICCAT), the North East Atlantic Fisheries Commission (NEAFC) and the Northwest Atlantic Fisheries Organization (NAFO). Nevertheless, fishing activity was also carried out in other RFMOs, but of a more peripheral nature, for example the Indian Ocean Tuna Commission (IOTC), where three nationally flagged vessels were involved in fishing tuna and tuna-like species, the General Fisheries Commission for the Mediterranean (GFCM), where there was one vessel using traps to catch shrimp, and the Inter-American Tropical Tuna Commission (IATTC), where four fishing units were involved in fishing tuna and tuna-like species.

We should point out that the national tuna fleet operating in external fishing grounds only uses surface longlines, and the relevant catches consist mainly of swordfish and other highly migratory species.

Development of the fleet

The downward trend in the national fishing fleet is continuing as a result of the ongoing process of adapting capacity to the available resources. Comparing the situation on 31 December 2019 with the situation on 1 January 2014, there has been a 5.54% reduction in the number of vessels, a 13.99% reduction in capacity in terms of gross tonnage and a 5.68% reduction in capacity in terms of propulsion power (Table 1). In terms of the active fleet, Annexes IV and IV-a show the development over the last five years (2015-2019) by region, length class and fleet segment. A reduction of approximately 6% in the number of licensed vessels can be observed, which corresponds to an increase of 1% in gross tonnage (GT) and a steadying of the figures for propulsion power (kW).

Table 1

REGION	FLEET ON 1.1.2014			FLEET ON 31.12.2019			DIFFERENCE IN ABSOLUTE TERMS			DIFFERENCE IN PERCENTAGE TERMS		
	NUMBER	GT	POWER (kW)	NUMBER	GT	POWER (kW)	NUMBER	GT	POWER (kW)	NUMBER	GT	POWER (kW)
MFL	6,996	85,453	294,683	6,612	74,217	277,464	-384	-11,236	-17,219	-5.81	-15.14	-6.21
RAA	764	10,112	54,124	739	9,310	52,370	-25	-802	-1,754	-3.38	-8.61	-3.35
RAM	438	3,938	16,222	417	3,763	15,586	-21	-175	-636	-5.04	-4.64	-4.08
TOTAL PORTUGAL	**8,198**	**99,503**	**365,029**	**7,768**	**87,290**	**345,420**	**-343**	**-15,067**	**-23,799**	**-5.54**	**-13.99**	**-5.68**

Changes in 2019 – entries and exits

In 2019, 64 vessels entered the national fishing fleet, amounting, in terms of capacity, to 6,376 GT and 11,079 kW. Most of the vessels renovated were in the mainland fleet (89%). Table 2 shows the number of vessels registered per fleet segment and Table 3 shows their origin. It can be concluded that 57.8% were newly constructed vessels (CST), 34.4% were

vessels that had changed activity (CHA) and 7.8% were units imported from other Member States (IMP). The figures reflect the effort to renew the fishing fleet through new units.

ENTRIES BY FLEET SEGMENT

Table 2

SEGMENT/REGION	DFN	DRB	DTS	HOK	MGO	PGP	PMP	PS	TOTAL
MFL	13	2	6	3	1	29	1	2	**57**
RAA	0	0	0	0	0	0	5	0	**5**
RAM	0	0	0	2	0	0	0	0	**2**
TOTAL	**13**	**2**	**6**	**5**	**1**	**29**	**6**	**2**	**64**

ENTRIES BY EVENT TYPE

Table 3

REGION	TYPE OF ENTRY			TOTAL
	CHA	CST	IMP	
MFL	18	34	5	57
RAA	2	3	0	5
RAM	2	0	0	2
TOTAL	22	37	5	64

In 2019, 140 units left the national fishing fleet, amounting, in terms of capacity, to a gross tonnage of 3,640 GT and a propulsion power of 8,226 kW. Table 4 shows the number of vessels decommissioned by fleet segment and Table 5 shows the number of exits from the fleet by type of event. It can be concluded that 64% were scrapped (DES), 34% were registered for an activity other than fishing (RET) and 1% were decommissioned for registration in another country (EXP).

EXITS BY FLEET SEGMENT

Table 4

SEGMENT/REGION	DFN	DRB	DTS	FPO	HOK	MGO	PGP	PMP	PS	INACTIVE	TOTAL
MFL	6	2	2	4	5	2	19	0	1	77	118
RAA	0	0	0	0	5	0	0	10	0	1	16
RAM	0	0	0	0	0	0	0	0	0	6	6
TOTAL	**6**	**2**	**2**	**4**	**10**	**2**	**19**	**10**	**1**	**84**	**140**

EXITS BY EVENT TYPE

Table 5

REGION	TYPE OF EXIT			TOTAL
	DES	EXP	RET	
MFL	72	1	44	117
RAA	13	1	3	17
RAM	5	0	1	6
TOTAL	**90**	**2**	**48**	**140**

Table 6 shows, by region, the movements of the fleet in 2019 in terms of entries, exits and changes in capacity (GT and kW). The overall downward trend is maintained in both the mainland fleet and the fleets of the outermost regions.

Table 6

DEVELOPMENT OF THE FLEET IN 2019	PORTUGAL			MAINLAND – MFL			AZORES – RAA			MADEIRA – RAM		
	NUMBER	GT	POWER (kW)	NUMBER	GT	POWER (kW)	NUMBER	GT	POWER (kW)	NUMBER	GT	POWER (kW)
FLEET CAPACITY ON 1.1.2019	7,844	84,412	341,234	6,672	70,564	271,597	751	10,055	53,968	421	3,794	15,669
ENTRIES IN 2019	64	6,376	11,079	57	6,349	10,773	5	23	225	2	5	82
CHANGES IN 2019	0	142	1,333	0	119	1,356	0	23	-66	0	0	42
EXITS IN 2019	140	3,640	8,226	117	2,815	6,263	17	790	1,756	6	35	207
FLEET CAPACITY ON 31.12.2019	7,768	87,290	345,420	6,612	74,217	277,464	739	9,310	52,370	417	3763	15,586
CHANGE IN ABSOLUTE TERMS	76	-2,878	-4,186	60	-3,653	-5,867	12	745	1,598	4	30	83
CHANGE IN PERCENTAGE TERMS	-0.98	3.30	1.21	-0.91	4.92	2.11	-1.62	-8.00	-3.05	-0.96	-0.80	-0.53

4. FISHING EFFORT

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Fishing effort reduction and fishing capacity reduction schemes

In 2019, the plans referred to in Table 7 entered into force.

Fishing effort recovery/adjustment or capacity control plans

Table 7

In force in 2019 or established in 2019	Target group	Objectives
Fishing Capacity Control Scheme	Vessels licensed for a wide range of fishing gear	Limiting fishing capacity through the number of licences
Recovery Plan for Bluefin Tuna	Traps Vessels licensed for surface longline or pole and line fishing (by-catches)	A 15-year plan, in force from 2007 to 2022, aimed at achieving a biomass level consistent with the maximum sustainable yield (B_{MSY}), with at least 60% probability
Recovery and Management Plan fo the Iberian Sardine (2018-2023)	All catches of sardine, particularly by vessels licensed to use seines and *xávega* (beach seines)	Limiting catches with a view to the recovery of spawning stock biomass at a rate of at least 10% per year
Management Plan for European Ee (in effect since 2009)	All vessels/fishermen involved in commercial and recreational fishing (recreational fishing of eel has been banned)	To recover silver eel biomass to pristine values
Implementation Plan for North Atlantic Salmon	Vessels licensed to operate in the areas betweer the River Lima and the River Minho as far as the border with Galicia	In force since 2007, with the objective of managing salmonid fisheries. Participation in NASCO activities.
Multiannual Plan for Western Waters	All vessels operating in the territorial seas of the Netherlands, Belgium, France, Spain and Portugal, within ICES areas 8b, 8c, 9a and 10	Joint management of some of the most important stocks throughout the area, balancing the respective Maximum Sustainable Yield ranges so that the various optimal fishing levels can be aligned

Impact of reduction schemes on fishing capacity

The Recovery Plan for Sardine Fishing

In 2018, a plan was implemented on the joint initiative of the Portuguese and Spanish administrations laying down the quantities that may be fished and establishing measures aimed at managing and monitoring the activity of vessels fishing for sardine. This plan was drawn up in response to ICES Special Request Advice, Bay of Biscay and the Iberian Coast Ecoregion, sr.2017.15, 14 July 2017, which stated that the previous plan was not precautionary. Since the establishment of the new plan, the fishing effort has been adjusted through the publication of various legal provisions as part of a local, rapid response management system, adapting fishermen's activity to the level of exploitation and the existence of juvenile fish.

The Adjustment Plan for Vessels Covered by the Recovery Plan for Hake and Norway Lobster

The Multiannual Management Plan was published in early 2019, replacing the Recovery Plan for Hake and Norway Lobster.

The Recovery Plan for Bluefin Tuna in the Eastern Atlantic and the Mediterranean

With a view to rebuilding this stock, the ICCAT adopted a provisional recovery plan for a period of 15 years at its 2006 annual meeting. As a result of the provisions relating to limiting capacity, and given the lack of national fleet activity during the reference period, national bluefin fishing was restricted to fishing traps.

In 2018, Recommendation 18-02 was adopted, approving a multiannual management plan for this stock. This was a direct consequence of the recovery in the biomass of *Thunnus thynnus*. The Recommendation entered into force on 21 June 2019.

The provisions adopted in the context of the ICCAT have been reflected in EU law through Regulation (EU) 2016/1627 of the European Parliament and of the Council of 14 September 2016, which repealed Council Regulation (EC) No 302/2009.

Overall fishing effort in South Western waters

The overall fishing effort of the Portuguese fleet in Western waters under Council Regulation (EC) No 1954/2003 of 4 November 2003 is set out in Table 8. We can see that the overall fishing effort (kW/day) fell by 36% between 2010 and 2019.

Table 8

Portuguese	English
Km/dias, por ano	Km/day, per year

5. ENTRIES AND EXITS SCHEME AND CAPACITY CEILINGS

In terms of the capacity of the EU fishing fleet, each Member State has its own defined segmentation. In the case of Portugal, capacity (in GT and kW) is managed by region (the mainland, the Azores and Madeira). The mainland fleet (the MFL fleet) is managed as a whole and the fleets of the Azores (ARA) and Madeira (RAM) are managed in accordance with the segmentation laid down in Annex II to Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 for Portugal's outermost fleets. In 2019, Portugal complied with the rules of the entries and exits scheme and observed the fishing capacity ceilings established for the mainland fleet and the fleets of the outermost regions.

Table 9 shows, by region, the capacity of the national fishing fleet on 1 January 2014 and 31 December 2019, in terms of tonnage and propulsion power, in accordance with Articles 22 and 23 of Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013.

Table 9

CALCULATION OF COMPLIANCE WITH THE FISHING CAPACITY CEILINGS IN ACCORDANCE WITH ARTICLE 22(6) AND (7) OF REGULATION (EU) NO 1380/2013 OF 11 DECEMBER 2013	MFL		RAM						RAA				TOTAL PT	
			Demersal species – overall length <12 m (4K6)		Demersal and pelagic species – overall length > 12 m (4K7)		Pelagic species – seine nets – overall length > 12 m (4K8)		Demersal species – overall length < 12 m (4K9)		Demersal and pelagic species – overall length > 12 m (4KA)			
	GT	kW	GT	kW	GT	kW	GT	kW	GT	kW	GT	kW	GT	kW
FISHING CAPACITY CEILINGS LAID DOWN IN ANNEX II TO REGULATION (EU) NO 1380/2013 OF 11 DECEMBER 2013	94,054	313,468	604	3,969	4,114	12,734	181	777	2,617	29,870	12,979	25,721	114,549	386,539
CAPACITY AS AT 1.1.2014	85,452	294,721	471	3,871	3,333	11,581	136	777	2,267	29,549	7,845	24,578	99,503	365,078
CAPACITY WITHDRAWN WITH PUBLIC AID (GTa AND kWa)	1,946	4,319	0	0	0	0	0	0	0	0	0	0	1,966	4,797
FISHING CAPACITY CEILING AS AT 31.12.2019	92,108	309,149	604	3,969	4,114	12,734	181	777	2,596	29,392	12,979	25,721	112,583	381,742
FISHING CAPACITY AS AT 31.12.2019	74,217	277,464	437	3,505	3,191	11,304	136	777	2,283	28,928	7,027	23,442	87,290	345,420
BALANCE	17,892	31,685	167	464	923	1,430	45	0	313	464	5,952	2,279	25,292	36,322

6. MANAGEMENT OF THE FISHING FLEETS

Strengths and weaknesses of the fleet management system

Strengths:

•Existence of an effective integrated fisheries information system (*SI2P*) which, in addition to enabling the recording of all fishing vessel movements, namely entries, changes and exits, facilitates the proper management of the national fleet capacity and enables, among other things, the management and monitoring of fishing licences and the monitoring of catches.

•Establishment of a digital licensing system, which enables the cross-checking of fishing authorisations with closed seasons, as well as the management of seaworthiness certificates, allowing licences to be activated and deactivated as necessary. The system also allows the particularities of each licence to be monitored by the inspection and monitoring personnel, via a dedicated website (https://www.portugueseflagcontrol.pt/).

•Existence of a vessel monitoring system (*MONICAP*), ensuring surveillance and monitoring of fishing activity.

•Requirement for fish to be sold first at auction, which enables better checks of landings in relation to catches made.

•24/7 operation of the Fisheries Monitoring and Surveillance Centre [*Centro de Controlo e Vigilância da Pesca – CCVP*], allowing ongoing monitoring and surveillance of the activity of the fleet.

•Linking licences to proof of activity for each sale at auction, so as to order to minimise the tendency of underdeclaration.

Weaknesses:

•In the case of multispecies fisheries, the difficulty in implementing fishing effort control schemes for each species, as it is not possible to identify a target species or the use of a particular gear in a given fishing operation.

•Large number of vessels using various types of gear throughout the year, which makes it difficult to analyse the fishing effort linked to each gear.

•Large number of small or very small vessels that are not equipped with monitoring equipment, which makes it difficult to monitor the vessels and also to cross-check information.

Plans to improve the fleet management system

For several years, licensing restrictions regarding the use of certain types of gear have been in place for the fishing of species that are considered to be more vulnerable or where the levels of exploitation are considered to be less sustainable, for certain river basins or in the context of establishing marine biodiversity reserves. Furthermore, with a view to preventing resources that could be exploited in a sustainable manner from being wasted, the authorities allow gear to be transferred between vessels in specific situations. In cases where the viability of the activity is at stake, transferring gear from vessels to be decommissioned increases the profitability of the vessels remaining active, without any increase in fishing effort. Restrictions are imposed on the granting of new fishing permits for the use of certain gear, in order to prevent increases in the fishing effort for the various resources fished and to help maintain the existing balances.

We would underline the scale of the sector's involvement in the management of resources that present some weaknesses, with regular meetings having been stepped up in the framework of certain fisheries monitoring committees. We should also mention the establishment of a committee for the co-management of goose barnacles in the Berlengas. The committee has yielded extremely encouraging results, despite the informal way in which it currently exercises its powers, which are determined by consensus of all licensed catchers.

Information on the general level of compliance with fleet policy instruments

As regards the European rules concerning fleets, we consider it relevant to highlight the following areas:

Monitoring the capacity of the fishing fleet

The capacity of the national fleet in terms of tonnage (GT) and propulsion power (kW) is managed through rigorous monitoring of capacity added versus capacity withdrawn, in accordance with the common fisheries policy – Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013. The Directorate-General for Natural Resources, Safety and Maritime Services (*DGRM*) has the power to authorise both the entry of new capacity into the mainland fleet and increases in the capacity of the registered fleet. That same power is held by the regional bodies with regard to the fleets of the outermost regions. Fleet capacity monitoring is carried out on a case-by-case basis for all situations involving new entries or increases in capacity, and regular assessments are carried out on the basis of the data recorded in the EU register (Fleet Register).

Monitoring and inspection of fishing activity

The monitoring of fishing activity established by Council Regulation (EC) No 1224/2009 of 20 November 2009 and its implementation under Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011, as amended, are carried out by checking compliance with the technical measures adopted, in accordance with the procedures and systems for monitoring and cross-checking information from different sources. In this context, we should mention the information from the electronic fishing logbook and the continuous satellite monitoring system (VMS). Through VMS, information is obtained in real time on the location, route and speed of vessels equipped with such equipment (vessels with an overall length of more than 12 metres), which enables comprehensive monitoring of the relevant activity. The data transmitted is cross-checked with the catch/landing data, ensuring greater scrutiny. This also allows information to be obtained which is used for the purpose of fulfilling European requirements in the area of fishing activity, i.e. controlling fishing effort, monitoring quota uptake and closing fisheries, where applicable. In 2018, the testing phase started for vessels using the new electronic fishing logbook system (*DPE*), as well as the technological tools underpinning that system. Although widespread installation has not yet begun, a final version was established in 2019 for the *DPE+.*

Monitoring and inspection of fisheries and related activities under the common fisheries policy and the fight against illegal, unreported and unregulated fishing (IUU fishing) are carried out by the competent authorities of the autonomous regions and the *DGRM*, which is tasked with coordinating the activity carried out by the various bodies with responsibilities in the area of monitoring and surveillance. In addition to the *DGRM*, the Regional Fisheries Inspectorate of the Azores, the Regional Fisheries Directorate of Madeira, the National Republican Guard, the Air Force and the Directorate-General of the Maritime Authority, which form part of the System for Notifying, Monitoring and Inspecting Fishing Activities (*SIFICAP*), are involved in carrying out monitoring, inspection and surveillance activities.

In the context of monitoring, activities with a particular impact on species subject to TACs and recovery plans were established as the main focus in 2019. Inspections targeted at vessels operating in the NAFO and NEAFC RFMOs were considered to have priority. Accordingly, 1,954 vessels were subjected to 6,036 monitoring measures. Of those vessels, 372 were suspected of having committed infringements, which equates to 19%. We should also mention the inspection rate for vessels coming under the above-mentioned priority areas, namely 72% for vessels fishing for and landing pelagic species and 81% for vessels subject to the Atlantic mackerel quota. In the case of vessels authorised for NAFO fisheries and unloaded in Portugal, the inspection rate was 56%. It was the same for vessels authorised for NEAFC fisheries.

A regional control centre has been established in Madeira, which is an exact copy of the National Fisheries Monitoring and Surveillance Centre. The system allows the movements of fishing vessels to be monitored on a daily basis. Based on that information, data from landings and fishing logbooks are cross-checked and alerts leading to notifications in the event of infringements are triggered.

SIFICAP facilitates coordination between the different bodies that are part of it, as well as access to fleet, licensing and register data and other information that is relevant for the monitoring process. That information is used to carry out a risk analysis which allows monitoring and inspection priorities to be established and which is distributed among the competent authorities in the area of fisheries monitoring, the Navy, the National Republican Guard, the Air Force and the national fisheries authority, the *DGRM*.

Monitoring activities in Madeira are organised on a monthly basis with the other bodies on the Programming and Planning Committee, under the coordination of the *DGRM*.

7. CHANGES IN ADMINISTRATIVE PROCEDURES RELEVANT TO FLEET MANAGEMENT

In 2019, the establishment of fisheries management measures and technical measures led to the following changes in administrative procedures. These changes have consequences for the management of the fishing fleet:

- The establishment of management measures for sardine and anchovy, by means of the following ministerial implementing orders: 1) Ministerial Implementing Order No 2/2019 of 2 January 2019 amending the regulations governing the aid scheme for the temporary cessation of fishing activities using seine gear, approved by Ministerial Implementing Order No 290/2018 of 26 October 2018; 2) Ministerial Implementing Order No 6-B/2019 of 4 January 2019 establishing limits on the capture and landing of anchovy (*Engraulis encrasicolus*) in ICES subarea 9, with a view to managing the anchovy quota available in 2019; 3) Ministerial Implementing Order No 37/2019 of 28 January 2019 establishing an exceptional scheme in 2019 for the capture of by-catch species in seine fishing pursuant to Article 7(2) of the Regulation on Seine Fishing, approved by Ministerial Implementing Order No 1102-G/2000 of 22 November 2000, as amended by Ministerial Implementing Orders No 346/2002 of 2 April 2002 and No 397/2007 of 4 April 2007; 4) Ministerial Implementing Order No 394/2019 of 11 November 2019 laying down regulations governing the aid scheme for the temporary cessation of fishing activities using seine gear.
- The establishment of management measures for sardine and anchovy, by means of the following orders of the State Secretariat for Fisheries: 1) Order No 4859-A/2019 of 14 May 2019 maintaining the ban laid down in Order No 9193-B/2018 of 28 September 2018 and re-opening sardine fishing from 00.00 on 3 June 2019; 2) Order No 6683-A/2019 of 25 July 2019 maintaining the measures established by Order No 4859-A/2019 published in the Portuguese Official Gazette, Series II, No 92, of 14 May 2019, and prohibiting sardine fishing on Wednesdays, in addition to the ban on fishing at weekends and on national holidays; 3) Order No 7712-A/2019 of 30 August 2019 establishing a catch limit for sardines for the period that started on 1 August 2019; 4) Order No 9004-A/2019 of 8 October 2019 prohibiting the capture, on-board retention and landing of sardine (*Sardina pilchardus*) in ICES area 9, using any type of fishing gear, from 12.00 on 12 October 2019; 5) Order No 10003-A/2019 of 4 November 2019 closing fisheries and prohibiting the capture, on-board retention and landing of anchovy (*Engraulis encrasicholus*) by any vessel in ICES subarea 9 until 00.00 on 1 April 2020; 6) Order No 10215-A/2019 of 11 November 2019 revoking point 2 of Order No 9004-A/2019 of the State Secretary for Fisheries of 8 October 2019, published in Series II of the Portuguese Official Gazette of 8 October 2019.
- The establishment of management measures for sardine and anchovy, by means of the following orders of the Director-General of the *DGRM*: 1) Order No 12/DG/2019 of 26 February 2019 regulating anchovy fishing; 2) Order No 27/DG/2019 of 6 June 2019 regulating sardine fishing; 3) Order No 29/DG/2019 of 4 July 2019 regulating sardine fishing; 4) Order No 37/DG/2019 of 13 September 2019 regulating sardine fishing.
- The establishment of the management model for Atlantic mackerel (*Scomber scombrus*), distributing the available quota among the various fleets that traditionally enjoy fishing opportunities for the species (vessels authorised to use trawls with a mesh size of 65-69 mm and/or 70 mm in ICES area 8c under the Portuguese-Spanish Agreement), by means of Order No 15/DG/2019 of the Director-General of the *DGRM*.
- The allocation of individual swordfish quotas by means of Ministerial Implementing Order No 271-A/2018 of 1 October 2018, Order No 25/DG/2019 of 27 May 2019 and Order No 41/DG/2019 of 7 October 2019, on the basis of the established management model, which includes quotas for swordfish fishing with surface longlines in the Atlantic Ocean and the Mediterranean Sea.
- For biological reasons, a ban on fishing with dredging gear: in the northwestern zone, to the north of the parallel passing through the northern boundary of the Aveiro Port Authority (40° 56.0 N), from 16 June to 15 July, and to the south of the parallel passing through the northern boundary of the Aveiro Port Authority (40° 56.0 N), from 15 May to 15 June; in the southwestern zone, from 1 to 31 May; in the southern zone, from 1 to 31 May – all in accordance with Order No 19/DG/2019 of 30 April 2019.
- Ban on fishing with beam trawls in June (mesh size range 32-54 mm) and from April to September (mesh size range 20-31 mm). Limit on engine power (maximum 56 kW) for vessels using beam trawls.
- Regular/area/mesh size range bans for vessels using bottom otter trawls.
- Banning and/or limiting the use of gillnets, trammel nets and hooks (periods/areas), particularly in the case of diadromous species, with the involvement of local and national interest groups.

8. BALANCE INDICATORS

The indicators for analysing the balance between the fishing capacity and fishing opportunities of the Portuguese fleet were applied in accordance with the Commission's guidelines of 2 September 2014 (COM-545 final). The data for the fleets of mainland Portugal and the Autonomous Regions of Madeira and the Azores, as well as the fleet operating exclusively outside EU waters, are presented separately.

8.1. Inactive fleet indicator

In 2019, 4,154 vessels did not carry out any activity. Although the number of inactive units is significant, in terms of fleet capacity such vessels only represent around 22% of the gross tonnage (GT) and 25% of the propulsion power (kW) of the entire registered fleet. Most of the vessels in the inactive fleet (around 94%) have an overall length of up to 10 metres. Annex V sets out the number of inactive vessels and their capacity (GT and kW) by length class and region.

8.2. Vessel use indicator *– ratio between the average number of days and the maximum number of days at sea*

The activity levels of the national fishing fleet were assessed on the basis of the number of days at sea per vessel in each fleet segment. The data used to calculate the indicator were obtained from fishing logbook data (electronic and non-electronic) and data on landings at auction centres. The ratio between the average number of days at sea per vessel and the maximum number of days at sea observed was applied. The assessment of the activity of the Portuguese fleet was carried out by region (MFL, RAA and RAM), and the fleet operating exclusively in non-EU waters is also presented separately.

MFL fleet

Annex VI shows the values for the last five years for the MFL fleet and vessels operating exclusively in non-EU waters. The trawler (DTS and TBB) and dredger (DRB) segments include vessels that use only one group of gear. The seiner segment (PS) consists mainly of vessels operating exclusively with seines; however, it also includes smaller vessels which, although they mostly use seines, are licensed to use other types of gear. The other segments include vessels that use two or more types of gear.

As we can see, the ratios reflect rates of use ranging from 0.26 to 0.88 across the segments of the MFL fleet in 2019. The analysis of the period from 2015 to 2019 shows that ratios for use have, over time, been more consistently lower in the case of vessels in the dredger (DRB), trap (FPO), *xávega*/beach seine (MGO) and seine (PS) segments, where most of the gear is subject to regular restrictions on activity. We would highlight the case of vessels using *xávega*/beach seines (MGO), whose fishing season is extremely short (they are only active for three months a year). In the dredger segment (DRB), all length classes displayed unsatisfactory activity ratios in 2019 – a situation to which the considerable reduction in the activity of these vessels may have contributed. The said reduction was caused by the presence of toxins in bivalve molluscs, which prevented the vessels from carrying out their activity for long periods of the year.

In the seiner segment (PS), the unsatisfactory activity ratios stem, in the main, from vessels whose fisheries continued to be subject to the activity restrictions implemented in the context of plans and management measures for the recovery of sardine. They also stem from the fact that there was a decrease in the anchovy quota in 2019, which contributed to an increase in the rest periods for these vessels. The segments comprising vessels with an overall length of up to 10 metres still display less satisfactory activity ratios, caused mainly by situations relating to adverse weather conditions which prevent smaller vessels from operating regularly during the winter. The traffic light system applied in 2019 indicates that 64.7% of the segments/length classes of the mainland fleet present ratios with unsatisfactory (red) values, while 35.3% present barely satisfactory (yellow) ratios.

In the case of the fleet operating exclusively in non-EU waters, there were no major changes compared to previous years. However, as that fleet is engaged in ongoing activity throughout the year, we consider that the ratios obtained suggest that the indicator used is not the most appropriate for assessing the activity of the vessels.

As we have stated in reports in previous years, we consider that the indicator – as it is defined – does not seem to be the most appropriate way to assess the actual activity of the vessels, and as a result it is not possible to draw reliable conclusions on potential overcapacity in the fleet. The variability between the maximum number of days at sea observed and the average number is mostly due to the particularities of vessels classified in those segments and has little to do with structural underactivity. While this observation applies to the majority of the fleet segments, the mismatch is more evident in the case of small-scale fishing vessels, as there is a high degree of heterogeneity in the activity carried out in that segment. The main factors contributing to these differences are the great variability in the weather and sea

conditions of the different areas/regions of the mainland, the exercise of part-time activity by a large number of vessels (seasonal activity) and the observance of specific closure periods for certain areas or types of fishing gear.

AAR fleet

As regards the activity of the fleet registered in the Azores, the values for the use ratios were relatively low between 2008 and 2019 and did not display a clear trend. The relative heterogeneity of the different segments of the Azores fleet is intrinsically linked to the technical characteristics of the vessels and their fishing pattern. Various factors contribute to this heterogeneity, such as weather conditions which significantly affect the operating capacity of the vessels, especially smaller vessels, and which can vary significantly between the different islands of the archipelago (e.g. the Western Group compared with the Eastern Group, the north coast compared with the south coast). Furthermore, a significant proportion of smaller vessel owners have more than one professional activity or carry out their activity on a seasonal basis as fishermen on board other vessels (e.g. during the tuna season).

Given the characteristics of the Azores fleet, the application of the proposed use indicator does not allow conclusions to be drawn regarding the existence of any imbalances in technical capacity.

Table 10 – Indicators for vessel use in the Azores fleet in the period 2015-2019

			2015			2016			2017			2018			2019		
			Average	Max.	Ratio	Average	Max.	Ratio	Average	Max.	Ratio	Average	Max.	Ratio	Average	Max.	Ratio
Azores, Area 27	DFN	VL0010	76	140	0.54	87	157	0.55	74	142	0.52	80	153	0.52	68	156	0.44
	HOK	VL0010	66	191	0.35	63	195	0.32	59	250	0.23	69	203	0.34	63	237	0.27
		VL1012	120	204	0.59	90	194	0.46	90	244	0.37	110	134	0.82	127	225	0.56
		VL1218	114	192	0.59	82	185	0.44	63	198	0.32	71	186	0.38	118	217	0.54
		VL2440	129	181	0.71	83	176	0.47	12	49	0.25	89	165	0.54	129	254	0.51
	PGP	VL0010	78	138	0.57	89	134	0.66	83	162	0.51	91	153	0.59	85	222	0.38
	PS	VL0010	88	143	0.62	83	155	0.54	74	134	0.55	71	123	0.58	92	143	0.64
		VL1012	187	213	0.88	126	168	0.75	118	185	0.64	136	194	0.70	195	259	0.75

MAR fleet

As regards the activity of the fleet registered in Madeira, we can see that the V1218HOK segment maintained a positive trend in the period 2015-2019, achieving a state of balance in 2019. The VL2440HOK segment has shown a slight improvement, moving closer to a state of balance. The VL0010HOK segment presents a variable pattern over the period under analysis, with a decrease in 2019. This is largely due to the fact that the segment is made up of vessels whose activity is very seasonal and is also influenced by the weather conditions.

As regards the MGP0010 segment, there was a clear upturn in the activity ratios, reversing the previous year's trajectory. The MGP1824 segment remains in balance, and a substantial improvement in the ratio values was recorded.

Table 11

	GEAR DCF	OVERALL LENGTH CLASS	2015			2016			2017			2018			2019		
			Average	Max.	Ratio	Average	Max.	Ratio	Average	Max.	Ratio	Average	Max.	Ratio	Average	Max.	Ratio
Madeira OFR	HOK	VL0010	153	210	0.73	186	235	0.79	187	212	0.88	170	188	0.91	173	200	0.87
		VL1218	276	323	0.85	263	312	0.84	262	296	0.89	244	276	0.88	245	269	0.91
		VL1824	177	274	0.65												
		VL2440	130	158	0.82	120	149	0.81	184	259	0.71	180	208	0.86	163	187	0.87
	MGP	VL0010	107	178	0.60	94	138	0.68	97	108	0.90	80	105	0.76	83	103	0.81

		VL1824	193	214	0.90	200	219	0.91	184	189	0.97	180	193	0.93	207	212	0.98

8.3. Biological sustainability indicators

MFL fleet

The fleet was grouped into segments based on the gear identified in previous years, but aggregated into the three most broad-ranging categories of gear: trawl, seine and polyvalent (which includes certain types of trawl and seine). As these segments are larger in size, the analyses carried out are considered more reliable. In 2019, 72 stocks subject to some form of scientific assessment, with proposals for catch limits, were identified. Of those 72 stocks, 38 are considered to be relevant for Portuguese continental waters. Each fleet segment fishes a variable share of the stocks, seiners being the segment with the fewest interactions (50%). Trawlers fish 82% of the stocks, while the polyvalent fleet fishes all stocks.

On average, each of the fleet segments identified now fishes 77% of the stocks subject to assessment, to a greater or lesser extent. This is despite the increase in the number of stocks assessed and is a consequence of the diversity of the stocks fished by each segment.

As in previous years, the total number of stocks fished is high: 338. This means that the proportion of scientifically assessed stocks continues to be much lower (11%), even taking into account the increase observed. This is largely because there are few stocks which are of relevance to the majority of the EU Member States and thus which have human and financial resources allocated to their study.

There has been an increase in the number of stocks subject to assessment and reduced dependency on these stocks in each segment, in relation to the total stocks fished. There has also been a decrease in the number of stocks fished above the maximum sustainable yield (8% of those assessed).

Table 12 – Indicator of stocks at risk

	Cerco	**Arrasto**	**Polivalente**
Pescada branca	0	1	0
Sardinha	1	0	0
Verdinho	0	0	0

Portuguese	English
Cerco	Seiner
Arrasto	Trawler
Polivalente	Polyvalent
Pescada branca	Hake
Sardinha	Sardine
Verdinho	Blue whiting

Three stocks were overfished in 2019 (Table 12), i.e. the fishing mortality of the stock exceeded the maximum sustainable yield. Specifically, and in descending order of the ratio, these stocks were sardine (3.39), hake (2.72) and blue whiting (1.05).

This small number of stocks currently at risk are fished by relatively few fleet segments. All the segments analysed fish no more than one vulnerable stock, and the situation has improved considerably compared with previous periods, in light of the general improvement in the state of the stocks.

Of the species being sustainably fished, those closest to the optimal levels of exploitation were megrim and Atlantic mackerel, with levels between 85 and 96% of F_{MSY}.

As regards the sustainable harvest indicator (Table 13), the seiner segment is still economically dependent on sardine to a notable extent (16.3%), and the trawler segment depends on two overfished species – hake and blue whiting – at a rate of 14.6%. However, the polyvalent fishing segments catch hake only to a limited extent (3.7%).

In view of the importance of seine fishing (PS), the situation of the relevant segments should be examined in greater detail. Sardine, which is a stock at risk, remains an important species in terms of seiner activity. This can be very problematic, in particular whenever anchovy is less abundant, given that the other species fished cannot ensure the sustainability of the fleet component.

According to ICES assessments in recent years, there have been shortcomings in recruitment in the case of the Iberian sardine. This has fallen and has been below average since 2005. Despite reductions in fishing mortality, the ICES assessments on the status of the stock have yet to change significantly.

Table 13 – Sustainable harvest indicator

	F/Fmsy	Cerco	Arrasto	Polivalente
Pescada branca	2,72	1571	2169583	2702280
Sardinha	3,39	30745482	50666	1225374
Verdinho	1,05	1	1483961	8077
F/Fmsy>1		30747054	3704211	3935731
Outras		55731313	15264492	36416499
Capturas sustentáveis		44,83%	75,73%	89,19%

Portuguese	English
Cerco	Seiner
Arrasto	Trawler
Polivalente	Polyvalent
Pescada branca	Hake
Sardinha	Sardine
Verdinho	Blue whiting
Outras	Other
Capturas sustentáveis	Sustainable catches

Despite the management measures that have been implemented, which have reduced the fleet's dependence on endangered stocks, and the fact that the number of endangered stocks has fallen (even though there have been fluctuations from year to year), the sustainable harvest indicator again showed that the vessels of the seiner fleet are very dependent on stocks that have been assessed negatively, specifically sardine. Notwithstanding the quite considerable importance of hake fishing for the trawler segment, stocks at risk were of little relevance for the other segments.

AAR fleet

In the framework of the Marine Strategy Framework Directive for the Azores subdivision and the UN Sustainable Development Goals, in particular No 14, an assessment of the environmental status of commercially exploited fish and shellfish populations was carried out using the level of fishing pressure, spawning capacity and population structure as indicators. That assessment, which was based mainly on information from research initiatives and the national programme for the collection of fishing data (*PNRD*), showed – in general and in accordance with the analytical procedures used – that all species had a final assessment of 'good environmental status'. However, in some cases, the level of confidence attributed is medium or low.

Demersal and deep-sea species

The analysis of the landings of demersal species in the period from 2011 to 2019 shows that, although there is some variation from year to year, the volume of landings has remained relatively stable, with an average annual value of 3,342 tonnes (Table 14).

Table 14 – Landings of demersal and deep-sea species in the Azores, in the period from 2011 to 2019

Year	Landings by weight (t)
2011	3,268
2012	3,739
2013	3,528
2014	3,797
2015	3,684
2016	3,229
2017	2,939
2018	2,553
2019	2,076
Average	3,201

Catches of demersal species in the Azores include some 70 species, with nine species representing around 75% of all landings. The main species caught during the reporting period were red seabream (*Pagellus bogaraveo*), with annual landings of 473 tonnes, conger eel (*Conger conger*), with 173 tonnes, blackbelly rosefish (*Helicolenus dactylopterus*), with 186 tonnes, silver scabbardfish (*Lepidopus caudatus*), with 64 tonnes, wreckfish (*Polyprion americanus*), with 80 tonnes, alfonsino (*Beryx spp.*), with 138 tonnes, forkbeard (*Physis physis*), with 84 tonnes, Mediterranean parrotfish (*Sparisoma cretense*), with 230 tonnes, and grey triggerfish (*Balistes capriscus*), with 101 tonnes.

Morphometric and biological information is collected for all these species as part of the national data collection programme (*PNRD*). This information is regularly sent and analysed in the ICES working groups, which draw up management recommendations on an annual basis. However, given the characteristics and complexity of demersal fishing in the Azores, it has not been possible to carry out an assessment of the exploitation status of these species, particularly the calculation of biological reference points.

In line with the guidelines for analysing the balance between fishing capacity and fishing opportunities under Article 22 of Regulation (EU) No 1380/2013 of the European Parliament and of the Council on the Common Fisheries Policy, and given that over 60% of the catch is made up of stocks for which no F or F_{msy} values exist, we consider that the indicator cannot be obtained for this set of species.

Small pelagic species

The analysis of the landings of small pelagic species in the period from 2011 to 2019 shows that the volume of landings varies somewhat from year to year, with no clear trend, and an annual average of 1,093 tonnes (Table 15).

Table 15 – Landings of small pelagic species in the Azores, in the period from 2011 to 2019

Year	Landings by weight (t)
2011	1,395
2012	945
2013	1,022
2014	1,307
2015	1,282
2016	887
2017	831
2018	1,074
2019	1,093
Average	1,093

In the context of small pelagic fisheries in the Azores, three species are caught: blue jack mackerel (*Trachurus picturatus*), with annual landings of 845 tonnes, Atlantic chub mackerel (*Scomber colias*), with 226 tonnes, and sardine (*Sardina pilchardus*), with 22 tonnes.

Morphometric and biological information is collected for all these species as part of the national data collection programme (*PNRD*). This information is regularly sent and analysed in the ICES working groups, which draw up management recommendations on an annual basis. However, given the complexity of the fisheries, it has not been

possible to carry out an assessment of the exploitation status of these species, particularly the calculation of biological reference points.

In line with the guidelines for analysing the balance between fishing capacity and fishing opportunities under Article 22 of Regulation (EU) No 1380/2013 of the European Parliament and of the Council on the Common Fisheries Policy, and given that over 60% of the catch is made up of stocks for which no F or F_{msy} values exist , we consider that the indicator cannot be obtained for this set of species.

Tunas

These resources are fished mainly by the pole-and-line tuna fleet (included in the HOK-VL2440 segment), which traditionally begins the harvest in Madeira and moves to the Azores during the season. In the period from 2011 to 2019, the average volume of tuna landed was 6,406 tonnes (Table 16), representing approximately 55% of all landings of fish by the Azores fleet.

Table 16 – Landings of tunas, in the period from 2011 to 2019

Year	Landings by weight (t)
2011	10,606
2012	7,951
2013	9,035
2014	6,303
2015	4,285
2016	2,748
2017	3,077
2018	9,330
2019	4,327
Average	6,406

Historically, there have been significant fluctuations in the catches of these species as a result of natural variations in abundance and changes in migratory routes. In this context, the 2019 reversal of the tendency towards increased volumes of catches observed in 2018 is part of this cyclical phenomenon which – most recently in the early 2000s – had also significantly hampered fishing of these species in the Azores.

In the period from 2000 to 2019, skipjack tuna and bigeye tuna accounted for 63% and 33% of the total tuna caught in the Azores, respectively. These stocks are managed at the level of the Atlantic by ICCAT. According to the assessments carried out in 2015, bigeye tuna is being overfished, while there is no indication that skipjack tuna is being fished above safe biological limits (Table 17).

Table 17 – Overview of the ICCAT assessments of the level of exploitation of bigeye tuna and skipjack tuna stocks, carried out in 2018 and 2014 respectively

Species	MSY	Catches (2017)	Relative biomass	Fishing mortality
Bigeye tuna	76,232 t (72,664-79,700 t)	78,482 t	B_{2017}/B_{MSY}:0.59 (0.42-0.80)	F_{2017}/F_{MSY}:1.63 (1.14-2.12)
Skipjack tuna	Probably higher than the previous one (143,000-170,000 t)	206,234 t	B_{2013}/B_{MSY}: >1	F_{2013}/F_{MSY}: <1

RAM fleet

In the case of the Madeira fleet fishing in CECAF area 34, two biological indicators were calculated: the sustainable harvest indicator (SHI) and the indicator for stocks at risk (SAR).

The guidelines set out in Commission Communication COM(2014) 545 final were used to obtain the indicators. Where available, F_{msy} (or approximations such as F_{max}) and F_{act} values published by international scientific institutions were used to calculate the SHIs. This is the case for tuna and tuna-like species (bigeye, albacore, skipjack, bluefin, swordfish), where reference values published by ICCAT in connection with the latest available assessments for each of the species were used.

In the case of some of the remaining species (e.g. Atlantic chub mackerel, blue jack mackerel, the limpets *Patella aspera* and *Patella candei*), whose stocks are demonstrably not influenced by significant migratory movements and which are only fished locally, quantitative and qualitative information exists on the status of the resource, even though no assessments have been carried out by international scientific bodies. The said information is based on biological and statistical data collected under various sampling schemes, particularly the national programme for the collection of fishing data. That programme yielded the required biological parameters, with each stock being considered as functional units that need to be managed.

The results obtained for the years 2015 to 2019 are set out in the table *'Biological indicators (RAM)'* (Table 18).

Table 18

		Biological indicators (RAM)														
		SHI (value of landings)					SAR									
		2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
GEAR DCF	**OVERALL LENGTH CLASS**															
HOK	**VL0010**	**1.27**	**1.19**	**1.11**	**1.03**	1.22	1	1	1	1	1					
	VL1218	**1.17**	**1.11**	**1.11**	**1.19**	1.51	0	1	1	1	1					
	VL1824	**1.17**					1									
	VL2440	**1.14**	**1.08**	**1.05**	**1.28**	1.05	1	1	1	1	1					
MGP	**VL0010**	0.94	0.81	0.80	0.60	1.14	1	0	0	0	1					
	VL1824	**2.24**	**4.04**	**3.24**	**3.12**	3.11	2	2	2	2	2					

In the case of hook gears (HOK), SHIs were calculated with Fmsy and Fact for bigeye tuna (*Thunnus obesus*), albacore tuna (*Thunnus alalunga*), skipjack tuna (*Katsuwonus pelamis*) and swordfish (*Xiphias gladius*). In the case of bluefin tuna (*Thunnus thynnus*), the SHI calculation was carried out with F0.1 and Fact based on the most recent assessments published by ICCAT.

Where it is impossible to obtain these values for other species of considerable importance in terms of landings and economic value (such as black scabbardfish, for which no biological reference points have been published), in some segments, particularly those where landings of the assessed species make up less than 40%, the indicator may not be representative. The cases where this happens are highlighted in red in the table.

In the case of MGP, which mainly comprises the Madeiran fleet's seine fisheries (small pelagic species) and the harvesting of shellfish (limpets), no assessments have been carried out by international institutions on the stocks fished by these fleet segments. Therefore, the indicator (SHI) is calculated on the basis of assessments carried out by the Madeiran Regional Fisheries Directorate on the stocks of the limpets *Patella aspera* and *Patella candei*, Atlantic chub mackerel (*Scomber colias*) and blue jack mackerel (*Trachurus picturatus*). Approximate values for Fmsy have been used (Fmax – obtained through the yield per recruit model).

The SHI is above 1 in all segments. This is mainly due to the high proportion – in most HOK segments – of fishing opportunities for bigeye tuna, which the most recent ICCAT assessment considered as being overfished in the Atlantic: Fact/FMSY = 1.28.

The MGP VL1824 segment is dominated by three seiners in the region, catching mainly Atlantic chub mackerel and blue jack mackerel. The most recent assessment for these two species, which considered the stocks fished locally, indicates limits above MSY (Fact/Fmax > 1) in both cases, using the yield per recruit model. The SAR indicator shows that this fleet segment is dependent on two biologically vulnerable stocks.

In conclusion, analysing the situation by segment:

HOK VL0010 and VL1218 – Although the indicators are not positive for either segment, as in previous years it should be taken into account that one of the main species caught in these segments (black scabbardfish) was not included in the calculation of the indicators for the reason indicated above. We consider that the biological indicators in these segments

may not be representative, particularly in the case of VL1218, where only 10% of the value of the landings corresponds to assessed species. This is a segment where the main catches are black scabbardfish, which, as we have already stated, was not included in the calculation of the indicator.

HOK VL2440 – For the fourth consecutive year, the segment, which includes the largest tuna vessels in the regional fleet, presents negative biological indicators, in light of the dependency on bigeye tuna. However, in the last four years, the value of the SHI has been improving and moving closer to 1. In this case, we consider the indicators to be representative, given that they were calculated on the basis of species representing 99.9% of the landing values.

MGP VL0010 – In contrast to previous years, the biological indicators in this segment are not positive. The values mainly correspond to landings of limpets. The average of the two species of limpet harvested was used, and, in the case of the species *P. candei*, $F_{act}/F_{max} > 1$. In this case, we consider the indicators to be representative, given that they were calculated on the basis of species representing almost 100% of the landing values.

MGP VL1824 – For the third year running, the segment, which includes the three small pelagic seiners of the regional fleet, presents negative biological indicators, in light of the dependency on Atlantic chub mackerel and blue jack mackerel. In this case, we consider the indicators to be representative, given that they were calculated on the basis of species representing 93% of the landing values.

8.4. Economic indicators

Portugal has improved the methodology and processing of data in order to carry out more reliable analysis. For example, in addition to the information from the data collection surveys, actual data on the fuel consumption and corresponding costs of a large number of vessels in the fishing fleet has been used, and the new model used for calculating the majority of the costs has now been established.

The depreciation costs take into account the values attributed for the useful life of the various components used in the PIM method (Permanent Inventory Method), adjusting them to values that are more in line with the reality of the national fishing fleet. Table 19 shows the values used in the PIM method.

Table 19 – Useful life according to the length class of vessels

Length class	Hull	Engine	Electronics	Other
	Number of years	Number of years	Number of years	Number of years
VL0012	**20**	**10**	**5**	**7**
VL1218	**30**	**18**	**5**	**7**
VL18XX	**30**	**24**	**5**	**7**

Two indicators were used for the economic assessment of the national fleet, namely its long-term and short-term economic viability. The ROFTA was used to assess the return on investment (long-term viability), and the ratio between current revenue and break-even revenue (CR/BER) was calculated for the short-term assessment, as detailed below:

- ROFTA (return on fixed tangible assets) = net profit/value of assets
- Ratio between current revenue (CR) and break-even revenue (BER), where BER is the revenue required to cover the fixed costs without loss or profit, and the current revenue (CR) is the total operating income of the fleet segment.

As proposed in the Commission's guidelines (COM(2014) 545 final of 2 September 2014), and taking into account an assessment of the return on the same capital if it had been invested in the best available alternative, the ROFTA was compared with the reference interest rate.

The indicators were calculated using the *PNRD* data for vessels active in the years under analysis. As the economic data for 2019 are not yet available, the economic indicators for the year under analysis were estimated from a projection based on data from 2016 to 2018.

MFL fleet

In the case of the MFL fleet and as can be seen from Annexes VII, VII-a and VII-b, the economic viability of most of the fleet segments declined slightly in 2018 compared to 2017. Nevertheless, over 85% of the segments performed positively.

The values estimated for 2019 show a slight change in some segments, with negative ratios forecast, particularly in the seiner segment (PS). The segment for vessels operating with dredges (DRB) up to 10 m in length, and vessels with an overall length class of between 24 and 40 m, which are included in the line and hook fishing segment (HOK), continue to present ratios with negative values. In the case of the fleet operating exclusively in external fishing grounds, the longliner fleet presented ratios with negative values in 2018, and it is estimated that the ratio will also remain negative in 2019.

If we consider the results observed between 2015 and 2018 and the estimated values for 2019 (Annex VII-b), no fleet segments are identified as being in imbalance in the case of the MFL fleet. Nevertheless, certain fleet segments, particularly those with vessels operating with dredges (0-10 m overall length class) and vessels fishing with lines and hooks, show a less profitable economic performance. In the seiner segment, the economic viability of certain classes of vessels has declined slightly. Nevertheless, despite the limitations that have affected this fleet segment in recent years, as a whole the fleet performs positively from an economic perspective.

The fleet segments that display a negative economic performance on a more ongoing basis have received special attention from the administration for the purpose of assessing possible future intervention.

AAR fleet

The analysis of the economic indicators shows that, in general, all segments of the Azores fleet show positive economic performance or have developed positively over the reporting period.

The only segment with a less robust economic performance was that of seiners with an overall length of between 10 and 12 metres. This segment is dominated by vessels fishing exclusively for small pelagic species. These vessels recorded a reduction in catches in the last few years of the reporting period on account of the management measures that have been implemented, such as the imposition of daily catch limits for the target species, for market-related reasons. For example, in 2019 most of these vessels landed significant volumes of cephalopods at auction, specifically squid.

Table 20 – Economic indicators for the Azores fleet in the period 2015-2018

REGION	Fishing tech.	Vessel length	2015		2016		2017		2018		2019	
			ROFTA	RATIO CR/BER	ROFTA	RATIO CR/BER	ROFTA	RATIO CR/BER	ROFTA	RATIO CR/BER	ROFTA	RATIO CR/BER
RAA	DFN	VL0010	0.39	3.50	3.09	6.13	0.41	3.55	0.49	3.18	0.59	2.95
	HOK	VL0010	0.26	2.89	1.30	3.94	0.26	2.77	0.22	2.09	0.18	1.75
		VL1012	0.29	3.01	0.24	2.44	0.26	2.85	0.33	2.41	0.40	2.25
		VL1218	0.40	3.34	0.12	1.69	0.21	2.28	0.25	1.78	0.28	1.63
		VL2440	0.02	1.12	-0.08	0.48	0.12	1.69	0.13	1.84	0.14	1.88
	PGP	VL0010	0.04	1.23	0.71	4.01	0.15	1.91	0.10	1.76	0.06	1.57
	PS	VL0010	0.15	2.14	1.15	4.90	0.29	2.38	0.29	2.49	0.29	2.62
		VL1012	0.16	1.89	0.38	2.75	0.51	4.55	0.05	1.25	-0.32	0.80

RAM fleet

The indicators for analysing the balance between fishing capacity and fishing opportunities (Article 22 of Regulation (EU) No 1380/2013 on the Common Fisheries Policy (CFP)) should be used in parallel to draw conclusions on the imbalances that exist in each fleet segment individually.

For the year 2019, and in view of the fact that the economic indicators are not available, the average of the last five years was used.

Table 21 – ROFTA

Fishing tech.	Vessel length	ROFTA					
		2014	2015	2016	2017	2018	2019
HOK	VL0010	0.11	0.19	0.19	0.28	0.39	0.23
	VL1218	0.39	0.97	1.02	0.76	1.32	0.89
	VL1824	-0.11					
	VL2440	0.01	-0.21	0.18	0.45	0.08	0.10
MGP	VL0010	0.54	0.92	1.18	0.76	0.71	0.82

	VL1824	0.05	0.03	-0.04	0.01	0.20	0.05

Table 22 – Ratio

Fishing tech.	Vessel length	RATIO					
		2014	2015	2016	2017	2018	2019
HOK	VL0010	1.46	3.72	2.25	2.37	2.96	2.55
	VL1218	3.32	6.42	3.81	4.07	6.08	4.74
	VL1824	0.57					
	VL2440	1.08	-0.08	1.22	3.10	2.27	1.52
MGP	VL0010	3.76	4.40	2.50	3.71	3.79	3.63
	VL1824	1.38	0.04	1.12	1.05	2.40	1.20

In the last two years, there has been a considerable upturn in the segments that presented difficulties in the past, particularly HOK VL2440 m – tuna fishing – and MGP VL1824 – seiners fishing for small pelagics.

There are no segments in red, which is encouraging. Vessel owners are balancing operating their business, i.e. costs, with fishing yields.

Catches remain stable and provide business owners with adequate returns. This results in better salaries and better liquidity.