

ANNUAL REPORT ON THE PORTUGUESE FISHING FLEET – 2020

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 fleet segments displaying some vulnerability, thereby improving alignment of fleet capacity with available resources.

In 2020, the seiner segment was still regarded as 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 submitted to the Commission after successive opinions from the International Council for the Exploration of the Sea (ICES) highlighting the poor situation of the stock, despite this view not being shared by professionals in the sector. 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 restrictions on sardine fishing, enabling a sustainable socio-economic balance to be maintained to some degree in the main fishing communities dependent on the species.

❖ *Fleet capacity*

On 31 December 2020, the Portuguese fishing fleet comprised 7 718 vessels with a total gross tonnage of 86 457 GT and a total propulsion power of 345 249 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 anchovy are the main species landed in the seiner segment, representing 84% of the total landings. Atlantic chub mackerel stands out as the species most commonly caught by seiners, accounting for about 57% (37 470 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% of the total volume of fish landed. We should emphasise the proportion of horse mackerel in the total volume landed by trawlers, which was about 45% (7 905 tonnes). The polyvalent fleet segment, which mainly fishes tuna and tuna-like species, Atlantic chub mackerel, octopus and black scabbardfish, landed approximately 49% (26 099 tonnes) of the total catch of fresh and chilled fish.

❖ *Entries into and exits from the fleet during 2020*

In 2020, 36 vessels (283 GT and 1 707 kW in total) entered the national fishing fleet and 80 vessels (896 GT and 2 552 kW in total) left. The majority of the vessels entering and leaving the fleet were vessels in the polyvalent fishing segment (PGP), mostly in the context of renewal of the fishing fleet.

❖ *Changes in the status of resources and/or the fishing opportunities*

As regards the resources fished by the Portuguese fleet and subject to total allowable catch (TAC) limits, the introduction of an increasing number of TACs established on the basis of the maximum sustainable yield (MSY) is resulting in more frequent fluctuations in the maximum permitted catch limits. Thus, although we are observing positive developments overall in the abundance and availability of species important to fisheries in Portugal (as is clear from Regulation (EU) 2020/123 of 27 January 2020, as updated), TAC reductions are now more frequently being proposed based on small fluctuations in stock levels, which are not necessarily caused by the extent of fishing. It should be noted that fishing opportunities for TAC species in 2020 increased by 20% compared to 2019, with quota increases for horse mackerel, megrim, Azores red seabream, skates/rays, anglerfish and Norway lobster. The increased fishing opportunities reflect the good situation 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 ICES. This has had direct consequences for our understanding of the status of the resources, as well as an impact on fishing opportunities.

As can be expected for a small pelagic with a short lifespan and heavily influenced by environmental conditions, anchovy stocks have been declining. Although as a species the niche it occupies is similar to that of sardine, in the same geographical area, it has different preferences in terms of salinity and temperatures. Anchovy has a preference for more tropical conditions (higher temperatures and lower salinity) compared to sardine, which prefers temperate conditions. Thus, although it does not compete directly with sardine, their stocks tend to fluctuate on a countercyclical basis, which has implications for the fishing opportunities.

In the case of sardine, the ICES already recognised the improvement in the situation of the resource at the end of 2019 and acknowledged that the species was being managed in accordance with a precautionary fishing rule in the light of its low productivity. However, fishing opportunities actually remained at very low levels in 2020, 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 fishery closure possibilities 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 requested fishing levels to the Member States with opportunities in those waters. The Member States base those levels on scientific opinions from national institutions or the ICES. Similarly, the Commission now considers that a stock should no longer be managed on the basis of the fishing opportunities where it becomes clear that the management system has no impact on its stock level. This was the case this year for forkbeard, which is no longer subject to TACs.

In the case of the activity of the national fleet operating in external fishing grounds, external fishing opportunities generally remained relatively stable in 2020, with the exception of cod in NAFO 3M.

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 an 82% decrease in the cod quota for NAFO 3M. The quotas for species such as redfish, forkbeard and skates/rays remained the same compared to the previous year. However, we should highlight the continuation of shrimp fisheries, whose management system is based on fishing effort rather than TACs, meaning that Portugal was allowed to fish this species for 17 days.
- NEAFC, where, at its annual meeting held in November 2020, management measures were adopted for 2021. In the case of Portugal, a TAC of 0 tonnes was adopted for redfish in the Irminger Sea, as well as a 21% increase for the same species in ICES areas 1 and 2.
- ICCAT, where a new recommendation concerning the conservation and management of tropical tunas was adopted. This will introduce significant changes to the previous regulatory framework with regard to the overall TAC and, in particular, the EU quota, with EU fishing opportunities decreasing by 21%. The annual meeting did not take place, with most of the measures and fishing opportunities being rolled over. Nevertheless, the TAC for bigeye tuna was reduced due to the stock status being 'overfished' and 'subject to overfishing', with Portugal's quota decreasing by 14% compared to the previous year. With regard to shortfin mako sharks, the recommendation allows for the on-board retention of fish already caught dead (exclusively), provided that the vessel has an observer on board or is equipped with an electronic monitoring system. However, this is a matter under discussion. A TAC for blue shark was established and allocated for the first time. With respect to all the other stocks relevant for Portugal, the status quo was generally maintained as regards fishing opportunities and operating conditions. In the longliner segment, scientific observer coverage increased from 5% to 10%.

❖ *Effort reduction and capacity adjustment schemes*

In 2020, the following fishing effort recovery/adjustment plans and capacity control schemes were in 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 the number of fishing permits for gear with 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 mortality rates for tropical tuna, particularly bigeye and yellowfin tuna, was implemented in provisional form for 2020 and 2021, while the Commission obtains additional scientific opinions 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 authorities, lays down the quantities that may be fished and establishes measures aimed at managing and monitoring the activity of vessels fishing for sardine. The 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 based on the precautionary approach. As the plan seeks to promote the most up-to-date scientific information, the focus is on publishing legislation 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 entry/exit scheme**

The fleet entry and exit 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 2020, 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 2020, licensing restrictions for certain types of gear remained in force with a view to improving the fleet management system. Some were aimed at regulating fishing effort and catches of species which are considered more vulnerable or whose fishing levels are considered less sustainable, while some applied to certain river basins or in the context of establishing marine biodiversity reserves. Restrictions on 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. The gear of decommissioned vessels is sometimes transferred to other vessels remaining active, which 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 fished by Portugal and covered by an ICES assessment.

2. BALANCE BETWEEN FLEET CAPACITY AND FISHING OPPORTUNITIES

In 2020, Portugal continued to implement a policy of sustainable exploitation of resources, aiming to reconcile that policy with the balanced management of the capacity of the national fishing fleet. At the same time, measures aimed at improving the safety and habitability of vessels were taken in order to provide greater safety and better working conditions for crews. However, this action 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. Nevertheless, the segment comprising vessels with an overall length of up to 10 metres operating with dredges (DRB) presents values that should be closely monitored in order to ensure that measures aimed at improving the segment's performance can be implemented if such action is deemed necessary. 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 small pelagic species and sardine caught. Despite the restrictions applicable to sardine, the abundance of anchovy (although levels are decreasing compared to previous years) enabled the economic performance of the seiner segment to remain positive overall. As regards the biological indicators, the segments are generally in biological equilibrium.

3. GENERAL DESCRIPTION OF THE FLEET IN TERMS OF FISHERIES

Description of the fleet

On 31 December 2020, the Portuguese fishing fleet consisted of 7 718 vessels with a total gross tonnage of 86 457 GT and a total propulsion power of 345 249 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 14.35% of the national total. The average age of the registered fleet is around 36 years and, in terms of the active fleet, around 26 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 outermost 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 2020, 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 longlines, handlines, traps and harvesting tools in the case of shellfish (limpets).

The fishing fleet of the Azores (RAA) is a small-scale fleet consisting mainly of vessels less than nine metres in length. Even though the number of such vessels has been falling over time, in 2020 they still accounted for approximately 65% of the total fishing fleet in the Azores (Figure 1).

The Azores fishing fleet is dominated by vessels operating with hooks and lines, which make up 81% of the region's total active fleet (Figure 2). We should also point out that there are a number of vessels – some 10% of the total – which operate using various types of fishing gear, according to the seasonal availability of the different fishing resources.

Figure 1 – Composition of the Azores fleet by length class

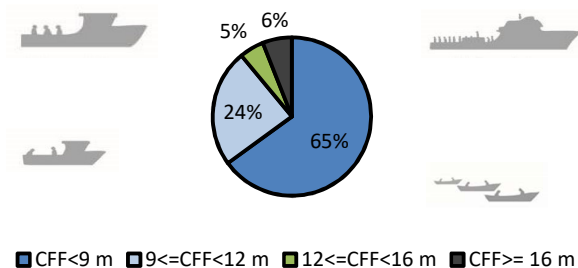
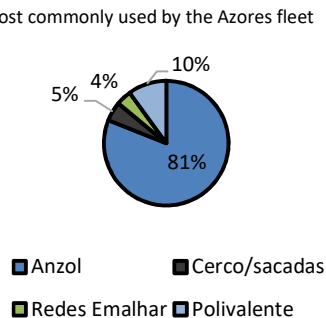


Figure 2 – Composition in terms of groups of fishing gear most commonly used by the Azores fleet



<u>Portuguese</u>	<u>English</u>
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 2020 and activity under Sustainable Fisheries Partnership Agreements (SFPAs), we should mention the activity carried out by Portuguese vessels under the SFPAs with Mauritania, Morocco, the Seychelles and São Tomé and Príncipe.

On the subject of SFPAs, negotiations with the Cook Islands are continuing following an exchange of letters to extend the current protocol, due to expire on 13 October 2020, by a period of one year. Furthermore, a new SFPA was concluded between the EU and Gabon, under which Portugal does not have any fishing opportunities.

Moreover, the protocol to the EU-Mauritania SFPA was extended for a second time through the provision application of an agreement in the form of an exchange of letters.

As an EU Member State, Portugal enjoys fishing opportunities under the SFPAs in force with the following countries: Morocco, Mauritius, Guinea-Bissau, Cape Verde, Côte d’Ivoire, the Seychelles, Senegal, São Tomé and Príncipe and Mauritania.

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

As regards Regional Fisheries Management Organisations (RFMOs), the activity carried out by Portuguese vessels in 2020 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 in a more peripheral manner, such as the Indian Ocean Tuna Commission (IOTC), where three Portuguese-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 its catches consist mainly of swordfish and other highly migratory species.

Development of the fleet

The Portuguese fishing fleet continues to decrease as a result of the ongoing process of adapting capacity to the available resources. Comparing the situation on 31 December 2020 with the situation on 1 January 2014, there has been a 6.2% reduction in the number of vessels, a 15.1% reduction in capacity in terms of gross tonnage and a 5.7% reduction in capacity in terms of propulsion power (Table 1). In terms of the active fleet, Annexes IV and IV-a show its development

over the last five years (2016–2020) by region, length class and fleet segment. A reduction of approximately 7% in the number of licensed vessels can be observed, as well as reductions in gross tonnage (GT) and propulsion power (kW) of 1% and 2% respectively.

Table 1

REGION	FLEET ON 1.1.2014			FLEET ON 31.12.2020			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	6 567	73 411	277 253	-429	-12 042	-17 430	-6.53	-16.40	-6.29
RAA	764	10 112	54 124	734	9 269	52 164	-30	-843	-1 960	-4.09	-9.10	-3.76
RAM	438	3 938	16 222	417	3 777	15 833	-21	-161	-389	-5.04	-4.26	-2.46
TOTAL PORTUGAL	8 198	99 503	365 029	7 718	86 457	345 249	-480	-13 046	-19 780	-6.22	-15.09	-5.73

Changes in 2020 – entries and exits

In 2020, 36 vessels entered the national fishing fleet, amounting, in terms of capacity, to 283 GT and 1 707 kW. Most of the vessels entered the mainland fleet (75%). Table 2 shows the number of vessels registered per fleet segment and Table 3 shows their origin. 44.4% were newly constructed vessels (CST) and 55.6% were vessels that had changed activity (CHA). The figures reflect the effort to renew the fishing fleet through new units, so as to ensure better safety and working conditions on board vessels.

ENTRIES BY FLEET SEGMENT

Table 2

SEGMENT / REGION	DFN	DRB	DTS	FPO	HOK	PGP	PMP	PS	INACTIV E	Total
MFL	2	2	1	3	3	14	1		1	27
RAA					7			1		8
RAM									1	1
TOTAL	2	2	1	3	10	14	1	1	2	36

ENTRIES BY EVENT TYPE

Table 3

REGION	TYPE OF ENTRY		TOTAL
	CHA	CST	
MFL	11	16	27
RAA	8		8
RAM	1		1
TOTAL	20	16	36

In 2020, 80 units left the national fishing fleet, amounting, in terms of capacity, to a gross tonnage of 896 GT and a propulsion power of 2 552 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. 61% were scrapped (DES) and 39% were registered for an activity other than fishing (RET).

EXITS BY FLEET SEGMENT

Table 4

SEGMENT/REGION	DFN	FPO	HOK	PGP	PS	INACTIVE	TOTAL
MFL	2	1	1	10		50	64
RAA	1		3	1	3	5	13
RAM						3	3
TOTAL	3	1	4	11	3	58	80

EXITS BY EVENT TYPE

Table 5

REGION	TYPE OF EXIT		TOTAL
	DES	RET	
MFL	39	25	64
RAA	8	5	13
RAM	2	1	3
TOTAL	49	31	80

Table 6

DEVELOPMENT OF THE FLEET IN 2020	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 1.1.2020	7 762	87 049	344 922	6 604	73 969	276 881	739	9 302	52 322	419	3 778	15 719
ENTRIES IN 2020	36	283	1 707	27	268	1 435	8	13	257	1	1	15
CHANGES IN 2020	0	21	1 172	0	10	986	0	10	59	0	1	128
EXITS IN 2020	80	896	2 552	64	836	2 049	13	56	475	3	3	29
FLEET CAPACITY ON 31.12.2020	7 718	86 457	345 249	6 567	73 411	277 253	734	9 269	52 164	417	3 777	15 833
CHANGE IN ABSOLUTE TERMS	-44	-592	+327	-37	-558	+372	-5	-33	+159	-2	-1	+114
CHANGE IN PERCENTAGE TERMS	-0.57	-0.68	+0.09	-0.56	-0.76	+0.13	-0.68	-0.36	-0.30	-0.48	-0.03	-0.72

Table 6 shows, by region, the movements of the fleet in 2020 in terms of entries, exits and changes in capacity (GT and kW). The overall downward trend in terms of the number of vessels and gross tonnage is maintained.

4. FISHING EFFORT

Fishing effort reduction and fishing capacity reduction schemes

In 2020, the plans set out in Table 7 were in force.

Fishing effort recovery/adjustment or capacity reduction plans

Table 7

In force in 2020 or established in 2020	Target group	Objectives
Multiannual Management Plan for Hake and Norway Lobster	Vessels with a special fishing licence included in the Southern Hake and Norway Lobster Multiannual Management Plan	Cap on the fishing mortality rate, which has been implemented by maintaining fleet activity after about ten years of reducing it, in the case of vessels with an overall length > 10 m making landings of over 5 tonnes of hake or 2.5 tonnes of Norway lobster
Fishing Capacity Control Scheme	Vessels licensed for a wide range of fishing gear	Limiting fishing capacity through the number of licences
Recovery and Management Plan for the Iberian Sardine (2018–2023)	All catches of sardine, particularly by vessels licensed to use seines and <i>xávega</i> (beach seines)	Limiting the daily catch per vessel with a view to ensuring the recovery of spawning stock biomass at a rate of at least 10% per year
Management Plan for European Eel (in effect since 2009)	All vessels/fishermen involved in commercial and recreational fishing	To recover silver eel biomass to pristine values
Implementation Plan for North Atlantic Salmon	Vessels licensed to operate in the areas between 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

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
Management Plan for Bluefin Tuna	Traps Vessels licensed for surface longline or pole and line fishing (by-catches) and vessels licensed for fishing in the outermost regions	To regulate this fishery in accordance with the ICCAT Recommendation in force since 2019
Multiannual Plan for the Conservation and Management of Tropical Tunas	Vessels licensed for surface longline or pole and line fishing	To reduce levels of mortality in tropical tuna

Impact of reduction schemes on fishing capacity

The Recovery and Management Plan for Sardine Fishing (2018–2023)

In 2018, a plan was implemented on the joint initiative of the Portuguese and Spanish authorities 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 fishing 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 Management Plan for Bluefin Tuna in the Eastern Atlantic and the Mediterranean

Moving from a recovery plan to a management plan in 2019 meant that bluefin tuna fishing was no longer restricted to traps and the national plan could include bluefin tuna fishing by smaller-scale fleets in the outermost regions. In the same year, Recommendation 19-04, which continues to endorse a multiannual management plan for bluefin tuna, was adopted. The Recommendation entered into force in June 2020.

In 2020, the authorisation for bluefin tuna fishing by fleets in the outermost regions was maintained and, thanks to the increased flexibility introduced by the new management plan, the percentage of by-catch rose to 7%.

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, as amended, is set out in Table 8. We can see that the overall fishing effort (kW/day) fell by 38% between 2010 and 2020.



<u>Portuguese</u>	<u>English</u>
Km/dias, por ano	Km/day, per year

5. ENTRY AND EXIT 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 at regional level (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 2020, Portugal complied with the rules of the entry and exit 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 2020, 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	85 447	294 621	486	3 997	3 333	11 581	136	777	2 257	29 497	7 845	24 578	99 503	365 051
CAPACITY WITHDRAWN WITH PUBLIC AID (GTa AND Kw)	1 946	4 319	0	0	0	0	0	0	24	557	0	0	1 969	4 876
FISHING CAPACITY CEILING AS AT 31.12.2020	92 108	309 149	604	3 969	4 114	12 734	181	777	2 593	29 313	12 979	25 721	112 580	381 663
FISHING CAPACITY AS AT 31.12.2020	73 411	277 253	451	3 707	3 191	11 349	136	777	2 282	28 843	6 987	23 321	86 457	345 249
BALANCE	18 698	31 896	153	262	923	1 385	45	0	312	470	5 992	2 400	26 123	36 414

6. MANAGEMENT OF THE FISHING FLEETS

Strengths and weaknesses of the fleet management system

Strengths:

- Existence of an effective integrated fisheries information system (*SIZP*) 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, *inter alia*, 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 minimise the tendency of underdeclaration.
- Artisanal fishing fleet comprising small vessels and engaging in more sustainable fishing, given that it is more selective and catches a relatively small volume of high-quality fish.
- Fleet segments made up of larger vessels operating on the coast and offshore in accordance with strict capacity management rules.

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.
- High average age of the fleet and inadequate operating conditions for a large number of vessels, particularly in small-scale fisheries.
- Large number of small or very small vessels that are not equipped with monitoring equipment, which makes it difficult to monitor the vessels as well as 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 whose fishing levels 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 emphasise 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 manner in which it currently exercises its powers, which are determined by consensus of all the licensed catchers. Other initiatives in the sector, aimed at increasing

the number of natural systems (river basins) or fisheries to be managed in a co-management system, are starting to have a noticeable effect.

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 in the case of the fleets of the outermost regions. Fleet capacity monitoring is undertaken 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.

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 undertaken 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 area of inspection, activities with a particular impact on species subject to TACs and recovery plans were established as the main focus in 2020. Inspections targeted at vessels carrying out that type of fishing were considered to have priority. In that context, all NAFO landings were inspected. In other words, 8 vessels landing a total of 30 542 690.40 kg of fish were subjected to 160 monitoring measures, with 63 suspected infringements being detected.

As regards the specific control and inspection programme (SCIP) for fisheries exploiting stocks of bluefin tuna in the Eastern Atlantic, and in order to comply with the reporting obligation laid down in Article 11(1) of Commission Implementing Decision (EU) 2018/1986 of 13 December 2018, 11 inspections at sea and 78 landing inspections were carried out, as well as 45 hours of aerial surveillance amounting to 33 sightings. 17 serious infringements were detected, which gives an average serious infringement rate of 21.8% (the infringement rate is defined as the ratio between the number of suspected infringements and the number of inspections, expressed as a percentage). In 2020, 591 288 kg of bluefin tuna were caught.

The National Maritime Authority (*AMN*) carried out 8 076 monitoring measures throughout Portugal, including the Azores and Madeira, and detected 452 suspected infringements, which equates to 5.56% of the total monitoring measures. The Regional Fisheries Inspectorate of the Azores (*IRPA*) carried out 1 150 monitoring measures and detected 43 suspected infringements, giving an infringement rate of 3.7%. The Portuguese Air Force (*FAP*) spotted 142 targets in its surveillance activities. In 2020, the National Republican Guard (*GNR*), within the scope of its powers, carried out monitoring of recreational fishing, professional fishing, warehouses, transportation, fishmongers, markets, aquaculture, businesses, etc. This amounted to 2 037 monitoring measures – 1 586 on land and 450 at sea – and 1 157 infringements.

During the course of 2020, the bodies forming part of *SIFICAP* were responsible for the launch of 1 416 infringement procedures. In the same period, the Spanish authorities drew up four inspection reports on Portuguese fishing vessels.

A regional monitoring centre has been established in Madeira, with the exact same characteristics as 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 2020, 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:

- Order No 1/DG/2020 of 17 January 2020 on the rules for the specific licensing of undulate ray fishing, enabling the continuation of the scientific studies that have been carried out
- Ministerial Implementing Order No 19/2020 of 26 January 2020 establishing, for anchovy fishing, the daily limits per vessel and fishing days per week
- Ministerial Implementing Order No 26/2020 of 30 January 2020 establishing an exceptional scheme in 2020 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
- Ministerial Implementing Order No 88-B/2020 of 6 April 2020 suspending fishing activity, under specific conditions, from 22.00 on Fridays to 22.00 on Sundays, until 31 May 2020
- Order No 9/DG/2020 of 30 April 2020 on closure periods in 2020 for fishing with dredging gear
- Ministerial Implementing Order No 105-A/2020 of 30 April 2020 terminating the weekly suspension period for fleet activity and revoking Ministerial Implementing Order No 88-B/2020. Specific restrictions on fishing activity during the weekend period remain in force, such as the ban on octopus fishing in the Algarve.
- Order No 5713-A/2020 of 2 May 2020 re-opening sardine fishing from 00.00 on 1 June 2020 until 24.00 on 31 July 2020
- Order No 11/DG/2020 of 7 June 2020 establishing daily limits for sardine fishing which enter into force as of 8 June 2020
- Ministerial Implementing Order No 143/2020 of 17 June 2020 – partial ban on fishing activity in the elevated underwater area known as 'Monte (Pico) Gonçalves Zarco'
- Order No 6790/2020 of 1 July 2020 establishing, by way of exception, that fishing for octopus and the use of *piteiras* (poles with hooks on the end) and creels or cage traps in the 30–50 mm mesh size class will be permitted throughout 2020 and the usual closure period in July and August will not be adhered to
- Order No 18/DG/2020 of 23 July 2020 establishing limits on the capture and landing of anchovy (*Engraulis encrasicolus*)
- Order No 7424-A/2020 of 24 July 2020 establishing the landing limit for sardine (*Sardina pilchardus*) caught with seines
- Order No 20/SubDG/2020 of 21 August 2020 on measures to regulate sardine fisheries (entering into force as of 24 August 2020)
- Order No 21/DG/2020 of 8 September 2020 on the regulation of sardine fisheries (entering into force at 00.00 on 10 September 2020)

- Order No 19/DG/2020 of 16 September 2020 laying down the conditions for the installation and characteristics of acoustic deterrent equipment to be used in fishing nets under the *xávega* (beach seine) method
- Order No 9747-A/2020 of 8 October 2020 prohibiting the capture, on-board retention and landing of sardine (*Sardina pilchardus*) (entering into force as of 00.00 on 10 October 2020)
- Order No 28/DG/2020 of 9 December 2020 on the regulation of anchovy fishing – prohibition of fishing
- Ministerial Implementing Order No 308/2020 of 30 December 2020 establishing the rules for managing the available quota of anchovy (*Engraulis encrasicolus*) in ICES subarea 9

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 2020, 4 180 vessels did not carry out any activity. Although the number of inactive units is significant, in terms of fleet capacity they only represent around 18% of the gross tonnage (GT) and 23% 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 four 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 for the segments of the MFL fleet reflect rates of use ranging from 0.32 to 1 in 2020. The analysis of the period from 2017 to 2020 shows that the downward trend in the ratios for use is continuing in the case of vessels in the dredger (DRB), trap (FPO), *xávega*/beach seine (MGO), polyvalent (PGP), gillnet and trammel net (DFN) and beam trawler (TBB) segments. We should point out that some of these segments are subject to regular restrictions on activity, which, in certain cases, results in rather short fishing seasons.

In the dredger segment (DRB), all length classes displayed unsatisfactory activity ratios in 2020 – a situation to which the considerable reduction in the activity of these vessels may have contributed. That reduction has been caused by the presence of toxins in bivalve molluscs in recent years, which prevents 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 the fact that the segment comprises vessels whose fisheries continued to be subject to the activity restrictions implemented in the context of plans and management measures, such as those for the recovery of sardine. They also stem from the fact that there was a ban on anchovy fishing, which was prohibited until 30 June 2020, cf. Order No 10003-A/2019.

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. Vessels with an overall length of up to 10 metres account for 66% of the total number of vessels operating in the national fishing fleet.

The traffic light system applied in 2020 indicates that 64.7% of the segments/length classes of the mainland fleet operating in national waters present ratios with unsatisfactory (red) values, while 32.4 % present barely satisfactory (yellow) ratios.

In the case of the fleet operating exclusively in non-EU waters, the performance of the HOK segment operating in OFR (Other Fishing Regions) has decreased, recording a negative ratio in both overall length classes. In contrast, the performance of vessels in the DTS and HOK segments operating in the NAO (North Atlantic Ocean) has improved. As the fleet operating exclusively in non-EU waters 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.

With regard to 2020, account should also be taken of the current situation caused by the exceptional SARS-CoV-2 pandemic, which has led to increased difficulties in the fisheries sector. For example, cases of preventive isolation where vessels were consequently unable to operate on a daily basis have led to an overall reduction in the activity of the fleet.

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 2020 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 owners of smaller vessels 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

			2016			2017			2018			2019			2020		
			Average	Max.	Ratio	Average	Max.	Ratio	Average	Max.	Ratio	Average	Max.	Ratio	Average	Max.	Ratio
Azores, Area 27	DFN	VL0010	87	157	0.55	74	142	0.52	80	153	0.52	68	156	0.44	60	149	0.40
	HOK	VL0010	63	195	0.32	59	250	0.23	69	203	0.34	63	237	0.27	59	221	0.27
		VL1012	90	194	0.46	90	244	0.37	110	134	0.82	127	225	0.56	113	212	0.53
		VL1218	82	185	0.44	63	198	0.32	71	186	0.38	118	217	0.54	126	260	0.49
		VL2440	83	176	0.47	12	49	0.25	89	165	0.54	129	254	0.51	106	232	0.46
	PGP	VL0010	89	134	0.66	83	162	0.51	91	153	0.59	85	222	0.38	81	185	0.44
	PS	VL0010	83	155	0.54	74	134	0.55	71	123	0.58	92	143	0.64	73	133	0.55
		VL1012	126	168	0.75	118	185	0.64	136	194	0.70	195	259	0.75	181	261	0.69
		VL1218	-	-	-	-	-	-	-	-	-	-	-	-	174	185	0.94

RAM fleet

As regards the activity of the fleet registered in Madeira, there has been a slight decline overall in the activity of the various segments of the local fleet. This has been influenced by the state of emergency in the country owing to the ongoing SARS-CoV-2 pandemic.

We can see that the VL1218HOK segment maintained a positive trend in the period 2015–2019, achieving a state of balance in 2019. However, there was a slight decline in 2020. The VL2440HOK segment has shown a slight improvement, moving closer towards a state of balance. However, there was a decline in 2020. The VL0010HOK segment presents a variable pattern over the period under analysis, with a decrease in 2019. This is due largely to the fact that the segment is made up of vessels whose activity is highly 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 trajectory of previous years (2014–2016). The MGP1824 segment remains in balance, with a substantial improvement in the ratio values being recorded up to 2019. Thus the reduction observed in 2020 is linked to the aforementioned pandemic.

Table 11

MADEIRA OFR	GEAR DCF	OVERALL LENGTH CLASS	2015			2016			2017			2018			2019			2020		
			Average	Max.	Ratio	Average	Max.	Ratio	Average	Max.	Ratio	Average	Max.	Ratio	Average	Max.	Ratio	Average	Max.	Ratio
			HOK	VL0010	153	210	0.73	186	235	0.79	187	212	0.88	170	188	0.91	173	200	0.87	177
		VL1218	276	323	0.85	263	312	0.84	262	296	0.89	244	276	0.88	245	269	0.91	221	253	0.87
		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	132	187	0.71
	MGP	VL0010	107	178	0.60	94	138	0.68	96.8	108	0.90	80.2	105	0.76	83	103	0.81	77	93	0.83
		VL1824	193	214	0.90	200	219	0.91	184	189	0.97	180	193	0.93	207	212	0.98	91	106	0.86

8.3. Biological sustainability indicators

MFL fleet

The fleet was grouped into segments based on the gear identified in previous years, but aggregated by type of fishing: towed dredges, hand dredges, cage traps, fyke nets, bottom-set gillnets, combined nets (gill and trammel), trammel nets, handlines and hand-operated pole lines, drifting longlines, bottom-set longlines, bottom otter trawls, seines, *xávega* (beach seines) and beam trawls. In 2020, 72 stocks subject to some form of scientific assessment, with proposals for catch limits, were identified. Of those 72 stocks, 26 are species fished in Portuguese mainland waters.

Table 12 – Interactions between types of fishing gear and species included in stocks fished in Portuguese continental waters

		MEG	LDB	ANE	HOM	POL	NEP	SOL	SOO	HKE	MAC	PLE	MON	ANK	WHB	LIN	DGS	RJC	RJM	RJH	RJN	RJU	PIL	SBR	BSF	BYS	BXD	26	Prop.	
DRB	DRB	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	3,8%	
	DRH	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	3,8%	
FPO	FPO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	--	1	1	1	1	1	1	1	1	1	--	1	23	88,5%
	FYK	--	--	--	1	--	1	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	4	15,4%	
DFN	GNS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	--	1	1	1	1	1	1	1	1	1	1	1	25	96,2%
	GTN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	--	1	1	1	1	1	1	1	1	1	1	1	25	96,2%
	GTR	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	--	1	1	1	1	1	1	1	1	1	1	1	25	96,2%
HOK	LHP	--	--	--	1	--	--	1	--	1	1	--	--	--	--	--	--	1	--	1	--	--	1	1	--	--	--	8	30,8%	
	LLD	--	--	--	1	--	1	--	--	1	--	--	1	--	--	--	--	1	--	1	--	--	--	1	1	--	--	8	30,8%	
	LLS	1	--	1	1	1	1	1	1	1	1	1	1	1	1	1	--	1	1	1	1	1	1	1	1	1	1	1	24	92,3%
DTS	OTB	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	--	1	1	1	1	1	1	1	1	1	1	1	25	96,2%
PS	PS	--	--	1	1	1	--	1	1	1	1	1	1	--	1	--	--	1	1	1	--	1	1	--	--	--	--	15	57,7%	
MGO	SB	--	--	1	1	--	--	1	--	1	1	1	--	--	--	--	--	1	--	1	--	1	1	--	--	--	--	10	38,5%	
TBB	TBB	--	--	1	1	1	--	1	--	1	1	1	--	1	--	--	--	1	1	1	--	1	1	--	--	--	--	13	50,0%	

Each fleet segment fishes a variable share of the stocks; the segments with the fewest interactions (3.8%) are the dredger segments. The bottom otter trawl and gill and trammel net segments fish for the largest number of stocks (96.2%).

On average, each of the fleet segments identified fishes 56.9% of the stocks subject to assessment.

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 low (7.7%), even taking into account the increase observed. This is largely because there

are few stocks which are of interest to the majority of the EU Member States and the object of human and financial resources allocated to research.

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).

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 value, these stocks were sardine (2.0), anchovy (1.63) and blue whiting (1.38). Table 13 shows the proportion, by type of fishing gear, of the catches of each stock at risk and the stocks at risk as a whole.

Table 13 – Proportion, by type of fishing gear, of the catches of overfished stocks (in relation to all catches using the type of gear)

	DRB		FPO		DFN			HOK			DTS	PS	MGO	TBB
	DRB	DRH	FPO	FYK	GNS	GTN	GTR	LHP	LLD	LLS	OTB	PS_	SB_	TBB
ANE	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	13,0%	0,2%	0,0%
PIL	0,0%	0,0%	0,1%	0,0%	0,6%	0,1%	0,0%	0,6%	0,0%	0,7%	0,1%	19,3%	1,9%	0,2%
WHB	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,0%	12,5%	0,0%	0,0%	0,0%
CAPTURAS NÃO SUSTENTÁVEIS	0,00%	0,0%	0,2%	0,0%	1,3%	0,3%	0,2%	1,2%	0,0%	1,5%	16,6%	46,8%	4,0%	0,4%

<u>Portuguese</u>	<u>English</u>
Capturas não sustentáveis	Non-sustainable catches

The small number of stocks currently at risk are fished by relatively few fleet segments. The segments analysed fish no more than two vulnerable stocks; however, the indicator for stocks at risk does not identify any such stock. This is because the situation has improved considerably compared with previous periods, in light of the general improvement in the state of the stocks.

As regards the sustainable harvest indicator (Table 14), the seiner segment is economically dependent on sardine and anchovy to a notable extent (46.84%), while the trawler segment depends on the overfished species at a combined rate of 16.55%, albeit mainly on blue whiting. Nevertheless, the gillnet segments also fish for hake, but to a more 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. At present, anchovy is the most commonly caught stock at risk, although sardine remains an important species in terms of seiner activity. This situation has tended to be very problematic, making it necessary for fishing seasons to be shortened, particularly when anchovy is less abundant. This is because the other species fished cannot ensure the sustainability of the fleet component. By weight, however, the most commonly caught species is Atlantic chub mackerel, a species which is not subject to TACs or assessment by the ICES. This could also be a cause for concern.

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 14 – Sustainable harvest indicator

	DRB		FPO		DFN			HOK			OTB	PS	MGO	TBB
	DRB	DRH	FPO	FYK	GNS	GTN	GTR	LHP	LLD	LLS	OTB	PS_	SB_	TBB
ANE	8	0	51	0	2137	598	950	0	0	8641	898	14830020	8261	21
PIL	0	0	9198	0	52044	14328	3392	248	0	88994	29910	27037114	110514	4270
WHB	0	0	104	0	2012	527	2619	0	0	1017	4894351	1352	0	0
F/Fmsy>1	8	0	9352	0	56193	15453	6962	248	0	98652	4925159	41868487	118775	4291
Outras	2471339	1838782	4569025	80821	4341119	5048623	3581402	21178	5162403	6481615	24825159	47509325	2856766	1023330
Capturas sustentáveis	100,00%	100,00%	99,80%	100,00%	98,72%	99,69%	99,81%	98,84%	100,00%	98,50%	83,45%	53,16%	96,01%	99,58%

ANE = anchovy; PIL = sardine; WHB = blue whiting

<u>Portuguese</u>	<u>English</u>
Outras	Other
Capturas sustentáveis	Sustainable catches

Despite the management measures that have been implemented, reducing 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 anchovy and sardine. Notwithstanding the relatively considerable importance of blue whiting fisheries 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, a reassessment of the environmental status of commercially fished species was carried out in 2020 for the Azores subdivision using the exploitation rate (ratio between catch and biomass index), spawning capacity (spawning stock biomass index) and population structure as indicators.

That assessment, which was based mainly on information from the annual research surveys on demersal species in the Azores (ARQDAÇO) and the programme for the collection of fishing data (PNRD), was used exclusively as an indicator of the biological sustainability of the different groups of species.

Demersal and deep/very deep water species

The analysis of the landings of demersal species in the period from 2011 to 2020 shows that the volume of landings is decreasing, with an average annual value of 3 087 tonnes (Table 15). We should point out that the region has been implementing a number of technical measures, such as minimum landing sizes or weights, a limit on the number of licences and maximum catch limits, with the aim of reducing the fishing effort for this group of species. In this context, we should highlight the fact that Ministerial Implementing Order No 92/2019 of 30 December 2019 set annual maximum catch limits for a number of demersal species and also imposed catch limits per trip and per vessel for some of those species.

Table 15 – Landings of demersal and deep/very deep water species in the Azores, in the period from 2011 to 2020

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	2 080
2020	2 056
Average	3 087

Catches of demersal species in the Azores include some 70 species, with eight species making up about 70% of all landings. The main species caught during the reporting period were red seabream (*Pagellus bogaraveo*), with average annual landings of 572 tonnes, conger eel (*Conger conger*), with 400 tonnes, blackbelly rosefish (*Helicolenus dactylopterus*), with 235 tonnes, silver scabbardfish (*Lepidopus caudatus*), with 234 tonnes, forkbeard (*Physis physis*), with 210 tonnes, Mediterranean parrotfish (*Sparisoma cretense*), with 204 tonnes, alfonsino (*Beryx spp.*), with 163 tonnes, and wreckfish (*Polyprion americanus*), with 142 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 analytical assessment of the exploitation status of these species, particularly the calculation of biological reference points.

The biomass level of twenty-four demersal species was assessed over the period 2012–2017, in accordance with the analytical procedures used to assess ‘good environmental status’ under the MSFD. In the case of seven of the species it was increasing, seven it was decreasing, and three it remained stable. For the remaining seven species it was not possible to carry out an assessment. We should point out that although the aforementioned assessment indicates that the biomass level of red seabream (*Pagellus bogaraveo*), which is the main demersal/deep-sea species caught in the Azores, is decreasing, the most up-to-date scientific information reveals that the stock is showing signs of recovery. This is why the fishing quota for red seabream was increased for 2021.

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 2020 shows that the volume of landings varies somewhat from year to year, with no clear trend, and an annual average of 1 121 tonnes (Table 16).

Table 16 – Landings of small pelagic species in the Azores, in the period from 2011 to 2020

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	1 289
2020	1 175
Average	1 121

In the context of small pelagic fisheries in the Azores, three species are caught: blue jack mackerel (*Trachurus picturatus*), with annual landings of 800 tonnes, Atlantic chub mackerel (*Scomber colias*), with 301 tonnes, and sardine (*Sardina pilchardus*), with 20 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.

It was not possible to complete the assessment – in accordance with the analytical procedures used to assess ‘good environmental status’ under the MSFD – of any of the small pelagic species fished commercially in the region.

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 2020, the average volume of tuna landed was 6 746 tonnes (Table 17), representing approximately 56% of all landings of fish by the Azores fleet.

Table 17 – Landings of tunas, in the period from 2011 to 2020

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	6 601
2020	5 002
Average	6 746

The main tuna species of the Atlantic are found in the Azores; the most commonly caught being bigeye tuna (*Thunnus obesus*) and skipjack tuna (*Katsuwonus pelamis*). In the period from 2011 to 2020, bigeye tuna and skipjack tuna accounted for 49% and 42% of the total tuna caught in the Azores, respectively. The geographical location of the Azores archipelago and the migratory nature of the tuna, which is linked to the quantity of food available and the ocean currents, mean that there are significant fluctuations in the annual catch volumes and that tuna fishing is highly seasonal.

These stocks are managed by ICCAT at the level of the Atlantic. According to the assessments carried out, bigeye tuna is being overfished, while there is no indication that skipjack tuna is being fished above safe biological limits.

Table 18 – 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 (2018)	Relative biomass	Fishing mortality
Bigeye tuna	76 232 t (72 664–79 700 t)	73 366 t	B_{2017}/B_{MSY} : 0.59 (0.42–0.80)	F_{2017}/F_{MSY} : 1.63 (1.14–2.12)
Skipjack tuna	-	282 427 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 and 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. This 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 allowed the required biological parameters to be obtained, with each stock being considered as functional units that need to be managed.

The results obtained for the years 2015 to 2020 are set out in the table ‘Biological indicators (RAM)’ (Table 19).

		Biological indicators (RAM)																	
		SHI (value of landings)						SAR											
		2015	2016	2017	2018	2019	2020	2015	2016	2017	2018	2019	2020	2015	2016	2017	2018	2019	2020
DCF GEAR	OVERALL LENGTH CLASS																		
HOK	VL0010	1.27	1.19	1.11	1.03	1.22	0.75	1	1	1	1	1	1						
	VL1218	1.17	1.11	1.11	1.19	1.51	0.91	0	1	1	1	1	1						
	VL1824	1.17						1											
	VL2440	1.14	1.08	1.05	1.28	1.05	1.75	1	1	1	1	1	1						
MGP	VL0010	0.94	0.81	0.80	0.60	1.14	0.95	1	0	0	0	1	1						
	VL1824	2.24	4.04	3.24	3.12	3.11	3.14	2	2	2	2	2	2						

In the case of hook gears (HOK), SHIs were calculated with F_{msy} and F_{act} 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 $F_{0.1}$ and F_{act} 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 case where this happened in 2020 is 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 in Madeira 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 F_{msy} have been used (F_{max} – obtained through the yield per recruit model).

The SHI is above 1 in two segments. This is mainly due to the high proportion – in the HOK VL2440 segment – of fishing opportunities for bigeye tuna, which the most recent ICCAT assessment considered to be overfished in the Atlantic: $F_{act}/F_{MSY} = 1.63$.

The MGP VL1824 segment is dominated by three seiners in the region that mainly catch 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 ($F_{act}/F_{max} > 1$) in both cases, using the yield per recruit model. The SAR indicator shows that this fleet segment is dependent on two biologically vulnerable stocks.

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 respective 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 20 shows the values used in the PIM method.

Table 20 – 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
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Two indicators were used for the economic assessment of the national fleet: 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 had it 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 2020 are not yet available, the economic indicators for the year under analysis were estimated from a projection based on data from 2017 to 2019.

MFL fleet

In the case of the MFL fleet and as can be seen from Annexes VII, VII-a and VII-b, around 91% of the segments with vessels operating in national waters performed well in 2019. In the case of the three segments with vessels operating exclusively in international waters, only one (HOK VL40XX) presented negative results in 2019.

However, if we compare 2019 with 2018, a slight drop in profitability can be observed in around 59.5% of the fleet segments.

As stated above, the data presented for 2020 derive from a projection based on data from 2017 to 2019. Therefore, a slight decline in the performance of the DTS, HOK and PGP fleet segments can be expected. The weak performance of the dredger segment is also expected to continue, especially in the case of vessels less than 10 m in length. This fleet segment should be monitored very closely in order to assess the need for any adjustments.

As regards the fleet operating exclusively in international waters, the HOK segment is expected to continue presenting a degree of economic weakness in 2020, in the case of vessels with an overall length exceeding 40 m. Vessels in the DTS segment over 40 m in length are also expected to suffer a drop in income.

If we consider the results observed between 2017 and 2019 and the estimated values for 2020 (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.

As regards the estimated figures for 2020, the profitability of vessels belonging to the trawler (DTS) and polyvalent (PGP) segments is expected to fall. Despite the constraints that have affected the seiner segment (PS) in recent years, the segment has performed well from an economic perspective. This is expected to continue in 2020. The DFN, FPO, MGO, PMP and TBB segments are also continuing to perform positively from an economic perspective.

We should also point out that the estimated figures for 2020 do not take account of the ongoing COVID-19 pandemic, as this is a very recent situation and it has not yet been possible to establish indicators to measure the impact of the pandemic on economic performance. Nevertheless, we believe that the performance results of the segments could be strongly influenced by the pandemic situation.

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.

According to the information collected, all segments of the Azores fleet are economically sustainable in the long term and are able to cover their costs in the short term. We should point out that, following the change in the aggregation criteria, which introduced a requirement for individual reporting in the case of fleet segments with more than three vessels, a new segment comprising seiners with an overall length of between 12 and 18 metres was established in 2020.

Table 21 – Economic indicators for the Azores fleet in the period 2008–2020

REGION	Fishing tech.	Vessel length	2016		2017		2018		2019		2020	
			ROFTA	RATIO CR/BER	ROFTA	RATIO CR/BER	ROFTA	RATIO CR/BER	ROFTA	RATIO CR/BER	ROFTA	RATIO CR/BER
RAA	DFN	VL0010	3.09	6.13	0.41	3.55	0.49	3.18	0.59	2.95	0.45	3.01
	HOK	VL0010	1.30	3.94	0.26	2.77	0.22	2.09	0.18	1.75	0.32	2.56
		VL1012	0.24	2.44	0.26	2.85	0.33	2.41	0.40	2.25	0.37	2.24
		VL1218	0.12	1.69	0.21	2.28	0.25	1.78	0.28	1.63	0.45	2.69
		VL2440	-0.08	0.48	0.12	1.69	0.13	1.84	0.14	1.88	0.02	1.14
		VL0010	0.71	4.01	0.15	1.91	0.10	1.76	0.06	1.57	0.41	2.85
	PGP	VL0010	1.15	4.90	0.29	2.38	0.29	2.49	0.29	2.62	0.17	1.83
		VL1012	0.38	2.75	0.51	4.55	0.05	1.25	-0.32	0.80	0.19	2.22
	PS	VL1218	-	-	-	-	-	-	-	-	0.74	4.79

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 2020, the average of the last five years was used, given that the economic indicators are not available.

It is clear that the reporting year was atypical due to outbreak of the COVID-19 pandemic, which has severely impacted the fisheries sector. Fisheries production has been particularly affected, as a result of the significant reduction in demand caused by the closure of markets and distribution channels such as HORECA, tourist accommodation and catering (tourism and related sectors have a significant impact on GDP and employment in Madeira). Moreover, sales outside the region have suffered a major downturn, as traditional European markets are also experiencing the same difficulties. Sales from RAM vessels fell by 30% in terms of volume and 26% in terms of value compared with 2019. This will undoubtedly be confirmed by the final economic data for 2020.

Table 22 – ROFTA

Fishing tech.	Vessel length	ROFTA					
		2015	2016	2017	2018	2019	2020
HOK	VL0010	0.19	0.19	0.28	0.39	0.71	0.35
	VL1218	0.97	1.02	0.76	1.32	1.34	1.08
	VL2440	-0.21	0.18	0.45	0.08	0.13	0.13
MGP	VL0010	0.92	1.18	0.76	0.71	1.12	0.94
	VL1824	0.03	-0.04	0.01	0.20	-0.12	0.02

Table 23 – Ratio

Fishing tech.	Vessel length	RATIO					
		2015	2016	2017	2018	2019	2020
HOK	VL0010	3.72	2.25	2.37	2.96	4.52	3.16
	VL1218	6.42	3.81	4.07	6.08	6.85	5.45
	VL2440	-0.08	1.22	3.10	2.27	1.61	1.62
MGP	VL0010	4.40	2.50	3.71	3.79	5.64	4.01
	VL1824	0.04	1.12	1.05	2.40	0.46	1.01

The MGP VL1824 segment – seiners fishing for small pelagic species – has presented low or negative returns in recent years, not generating sufficient revenues to cover operating and capital costs. This indicator, combined with the biological and activity indicators, could point to the need for an adjustment in the segment.

There are no other 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.