



MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT
NATIONAL AGENCY FOR FISHERIES AND AQUACULTURE



Romania's annual report on efforts to achieve a sustainable balance between fishing capacity and fishing opportunities for 2021

pursuant to Article 22 of Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Regulation (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC and following the Guidelines for the analysis of the balance between fishing capacity and fishing opportunities according to Art 22 of Regulation (EU) No 1380/2013 of the European Parliament and of the Council on the Common Fisheries Policy, COM(2014) 545 final of 2 September 2014

Prepared by the

National Agency for Fisheries and Aquaculture
and
National Institute for Marine Research and Development
'Grigore Antipa' Constanța

May 2022

Table of contents:

Section	Section title	Page
	Summary of the report	3
A.	Description of the fishing fleets and relation to fisheries	3
A.1	Description of the Romanian fishing fleet	3
A.2	Relation to fisheries	5
A.3	Fleet development	13
B.	Impact of fishing effort reduction schemes on fishing capacity	16
B.1	Report on effort reduction schemes	16
B.2	Impact of effort reduction schemes on fishing capacity	17
C.	Statement of compliance with entry/exit scheme and with reference point	17
D.	Strengths and weaknesses of the fleet management system together with a plan for improvements and information on the general level of compliance with fleet policy instruments	18
D.1	Summary of weaknesses and strengths of the fleet management system	18
D.2	Plan for improvements on the fleet management system	21
D.3	Information on the general level of compliance with fleet policy instruments	22
E.	Information on changes of the administrative procedures relevant to fleet management	22
F.	Assessment and exploration of indicators	23
F.1	<i>Technical indicators</i>	23
F.2	<i>Biological indicators</i>	26
F.3	<i>Economic indicators</i>	29
	Annex 1. <u>Action plan</u>	33

Summary of the report

Compared to 2020, in 2021 the Romanian fishing fleet recorded a decrease in the number of vessels, as well as in GT and kW in all segments, except for VL1824PMP vessels, where a minor increase was recorded, i.e. from 1 vessel in 2020 to 3 vessels in 2021. The reason for this was a change in the legislation of the Romanian Naval Authority [Autoritatea Navală Română], which consisted in using a new method for calculating length, vessels thus being moved from the VL2440PMP to VL1824PMP fleet segment.

Each entry (increase in tonnage or engine power) in the fishing fleet register was covered by withdrawing at least the same capacity from the fleet.

The economic state of the fleet was significantly affected by the COVID-19 pandemic. The anti-epidemiological measures taken, such as the restriction on the business of commercial restaurant network, or their closure entirely, and reduced consumption, have led to a significant reduction in the demand for fish and fisheries products, in particular in the exports of veined rapa whelk to the Southeast Asia markets. On the other hand, border restrictions have led to a sharp drop in exports. The sector has been significantly affected, leading to staff and wage cuts.

Other factors which affected the fleet are: the relatively old average age of fishing vessels, which is approximately 21 years, the imbalance between variable costs and current revenue, the low purchasing power of the population, and the annual migrations of some economically important species.

The inactivity of fishing vessels was mainly due to the COVID-19 crisis and to repairs, refits or transfers of ownership and, to a lesser extent, the purchase of new fishing gear.

The number of inactive fishing vessels in 2021 was reduced from 45 vessels in 2020 to 33 vessels, as broken down by fleet segment below: VL00-06m – 4 vessels, VL06-12m – 26 vessels, VL18-24m – 2 vessels, and VL24-40m – 1 vessel.

The fishing industry over the last two years has caused the disruption of the supply chain as a result of the COVID-19 health crisis, as demand for fisheries products dropped sharply; the veined rapa whelk in 2021 accounted for 87.82% of Romania's total catches, followed by common mussels, accounting for 4.00%, and by turbot, accounting for 2.38%.

Health measures (distance between crew members at sea, restrictions on the transport of fishermen and buyers) also add to these supply and demand challenges.

The closure of HORECA (hotels, restaurants and cafés) had a significant impact on the operation of the fishing fleet, in particular for fleet segments targeting high-value species and small-scale fisheries, which strived to maintain limited operation in order to sustain a new balance between supply and low demand.

Fishermen, retailers and processors also deal with limited storage capacity (e.g. freezers).

A. Description of the fishing fleets and relation to fisheries

A.1. Description of the Romanian fishing fleet

The Romanian fishing fleet is operating only in the Black Sea in the area of application of the Regional Fisheries Management Organisation – GFCM, Area 37 – Mediterranean and Black Sea, Sub-area 37.4., Division 37.4.2, GSA 29, along the Romanian coastline, and is limited to the marine water areas up to the 60-70-meter isobath, exclusively within the EEZ.

As at 31 December 2021, the fishing fleet consisted of 163 vessels with a total capacity of 1 575.26 GT and 6 198.29 kW. Fishing vessels allocated to small-scale fisheries, which are up to 12 metres long, represent 66.25%, that is 108 vessels with a capacity of 320.37 GT and 1 772.22 kW.

The structure of active vessels by length class segment and fishing technique was as follows: 1 24-40 m PMP vessel, 3 18-24 m PMP vessels, 18 12-18 m PMP vessels, 99 06-12 m vessels (of which 69 PG and 30 PMP) and 9 00-06 m PG vessels. The staff carrying out marine fishing activities counted 365 fishermen and there were on average 3 employees per vessel.

During their activities, the fishing vessels grouped by PMP fishing technique used both active and passive TBB, OTM, GNS, SB and manual fishing gear, with divers, when harvesting molluscs (veined rapa whelk and mussels). Such activities were performed by almost all vessel categories: 24-40 PMP, 18-24 PMP, 12-18 PMP and 06-12 PMP.

The PG fishing vessels were those in class segments 00-06 PG and 06-12 PG and used the following as main gear: GNS, FPN, LHP and LLS.

Only 130 (79.75%) of the 163 vessels in the Romanian fishing fleet performed fishing activities (85.81% GT and 86.02% kW), and 33 vessels (20.25%) were inactive (14.19% GT and 13.98% kW), compared to 2020. In 2021, the number of active vessels remained constant, while the number of inactive vessels was reduced by 20.25%, compared to 25.71% in 2020.

The most representative segment of the Romanian fleet was VL06-12 m, which accounts for 76.69% (125 vessels) and which is also the largest segment of the entire fleet, followed by the VL12-18 m segment, which accounts for 12.27% (20 vessels), and the VL00-06PG segment, which accounts for 7.98% (13 vessels). The VL18-24 m segment, which accounts for only 1.84%, consists of only 3 active vessels and the VL24-40 m segment, which accounts for 1.23% of the fleet, consists of 2 vessels, i.e. 1 active and 1 inactive.

The highest number of inactive vessels was recorded in the VL06-12 m segment, which accounts for 15.95% (26 vessels), followed by the VL00-06 m (4 vessels), VL18-24 m (2 vessels) and VL24-40 m (1 vessel) segments. Tables 1 and 2.

Table 1. Structure of the Romanian fleet in 2021 by fleet segment, GT, kW, length, age, fishermen

Fleet segments (active and inactive vessels)		No of vessels	% No of vessels	Total GT	% GT	Total kW	% kW	Average length	Average age	No of fishermen
Active	00-06 m PG	9	5.52	8.33	0.53	145.95	2.35	5.03	18.67	17
	06-12 m PG	69	42.33	135.63	8.61	748.43	12.07	7.84	22.29	165
	06-12 m PMP	30	18.40	176.41	11.20	877.84	14.16	8.74	15.83	95
	12-18 m PMP	18	11.04	596.31	37.85	2 493.57	40.23	14.85	12.56	72
	18-24 m PMP	3	1.84	318	20.19	846.25	13.65	22.13	31.00	12
	24-40 m PMP	1	0.61	117	7.43	220	3.55	25.50	39.00	4
Total active vessels		130	79.75	1 351.68	85.81	5 332.04	86.01	14.02	23.23	365
Inactive	00-06 m	4	2.45	3.78	0.24	10	0.16	5.30	28.00	0
	06-12 m	26	15.95	43.01	2.73	118.25	1.91	7.61	19.88	0
	18-24 m	2	1.23	65.79	4.18	403	6.50	14.90	3.50	0
	24-40 m	1	0.61	111	7.05	335	5.40	26.70	18.00	0
Total inactive vessels		33	20.25	223.58	14.20	866.25	13.97	13.63	17.35	0
Total vessels		163		1 575.26		6 198.29				365

PG * vessels using only stationary fishing gears; PMP * vessels using both active and stationary fishing gears

Table 2 shows the number of fishing vessels and their activity per segment, and the total activity for 2021. The highest level of activity was recorded in the VL06-12PG segment (36.21%), with 1 317 days at sea; this segment represents 42.33% active vessels in the fleet and is also the largest, followed by the VL12-18PMP segment (24.86%) with 904 days at sea, with 18 vessels (11.04%), and by the VL0612PMP segment with only 30 vessels and 854 days at sea.

Table 2. Activity of fishing vessels by fleet segment in 2021

Active fleet segment	No of vessels	Total GT	Total kW	Days at sea	Fleet activity %	Total landings (tonnes)
VL00-06PG	9	8.33	145.95	327	8.99	58.297
VL06-12PG	69	135.63	748.43	1 317	36.21	95.7935
VL06-12PMP	30	176.41	877.84	854	23.48	876.3095
VL12-18PMP	18	596.31	2 493.57	904	24.86	1 610.453
VL18-24PMP	3	318	846.25	150	4.12	354.8826
VL24-40PMP	1	117	220	85	2.34	131.4105
Total	130	1 351.68	5 332.04	3 637	100	3 127.1461

A.2. Relation to fisheries

Fishing in Romania is practised along the coastline and is supported by five main fishing ports (Sulina, Midia, Tomis, Constanța and Mangalia), 32 landing sites and 31 points of first sale, located between Sulina and Vama Veche. In general, fishing depths range between 2 and 20 m, however, when specialised fishing is practised for species such as turbot, allis shad or dogfish, fishing depths go down to 60 m. The fishing activity is generally carried out in inland and territorial marine waters (up to 12 nautical miles). Fishing techniques and methods in the Black Sea:

- stationary fishing using stationary uncovered pound nets, set gillnets and pots;
- fishing without gear (with divers) for veined rapa whelk / mussels;
- fishing using towed gear such as trawl, beam trawl, dredges;
- specialised fishing for turbot, using set gillnets and for dogfish, using trolling lines.

Currently, fishing vessels used in Romanian waters feature obsolete fishing gears and lack refrigerated storage space.

In Romanian marine waters, fishing is mainly practised in the first four/seven months of the fishing season (March to October), when the most important commercial fish species arrive in the coastal zone for spawning and feeding. In recent years, sea fishing in the Romanian Black Sea area has been confined to stationary fishing in the coastal zone, using fixed gears such as various types of nets, trolling lines, seines, pots and stationary uncovered pound net. The state of fish catches per port, in tonnes landed in 2021, and the breakdown of catches by month are shown in Figures 2 and 3.

Over the last decade, there has been a significantly growing interest in the exploitation of marine molluscs in the Black Sea. Molluscs are not considered traditional food in Romania, but over the last years there has been an increase in people's preference for consumption of mussels and veined rapa whelk. The veined rapa whelk gastropod (*Rapana venosa*) has become prevalent in the marine fishing activity in Romania (87.82% of the total catch), followed by mussels (*Mytilus galloprovincialis*) which are fished by divers or using mechanized dredges and TBB.

The most targeted species in the Black Sea, on the Romanian coast, are:

- pelagic species: sprat, horse mackerel, golden grey mullet, European anchovy, allis shad, garfish;
- demersal species: turbot, red mullet, dogfish, blonde ray and common stingray, gobies;
- molluscs: veined rapa whelk and mussels.

In Romania, marine fishing is practised, along the Romanian coast, in marine areas down to the 60 m isobath, due to the characteristics of vessels and their limited autonomy. Romania's Black Sea fishing zone, as stipulated in the UN Convention on the Law of the Sea, has not been delineated yet. This is why Romanian fishing vessels usually fish within a distance of 30 to 35 nautical miles from the shore.

Commercial fish stocks depend on the availability and quality of wintering habitats, feed resources and spawning and nursery grounds. The quality of these spawning grounds and the living conditions required for their larval stages play a crucial role in the reproduction of fish stocks.

The harvesting of shellfish by purse seine / towed gear in Romanian waters has been regulated since 2018, including provisions on hydraulic dredging with specially equipped vessels. The mollusc species harvested include striped venus (*Chamelea gallina*), veined rapa whelk (*Rapana venosa*) and

Mediterranean mussel (*Mytilus galloprovincialis*), the latter being collected using divers and dredge-type tools.

The total quantity landed in 2021 was 3 127.1461 tonnes, equating to EUR 2 236 484, dropping since 2020 (29.93%), in the share of landings, and by 19.31% in the value in EUR, and dropping since 2019, i.e. by 56.26% in landings and by 48.63% in the value in EUR. The reason for this was a decrease in the catches of veined rapa whelk (RPW) – the species that most influenced the structure of the stocks landed.

Table 3 lists the main catches (in tonnes) landed in 2021, representing 23 different species; significant catches of major importance are: veined rapa whelk, (87.82%), mussels (4.00%), turbot (2.38%), sprat (1.52%), anchovy (1.25%), red mullet (1.10%), horse mackerel (0.88%), bluefish (0.30%), gobies (0.19%), allis shad (0.11%), the remaining species landed accounting for less than 0.10%.

As regards their value in EUR, their share is: veined rapa whelk (51.57%), followed by turbot (28.11%) (given the high price of turbot at first sale), mussels (6.54%), red mullet (3.08%) and bluefish (2.51%). Sprat accounted for 1.52% of the total landings as it is an EU-listed species, while dogfish accidentally caught, as it is an unlisted species, accounted for only 0.02% of landings.

As regards breakdown by length class, the highest landing rates and their value in EUR were recorded in the VL12-18PMP segment (51.50% in tonnes and 46.21% in the value in EUR), followed by the VL06-12PMP segment (28.02% in tonnes and 25.99% in the value in EUR), followed by the VL18-24PMP segment (11.35% in tonnes and 8.60% in the value in EUR), while the lowest values were recorded in the VL24-40PMP, VL06-12PG and VL00-06PG segments.

Figure 1. Breakdown of landings and value in EUR per fleet segment in 2021

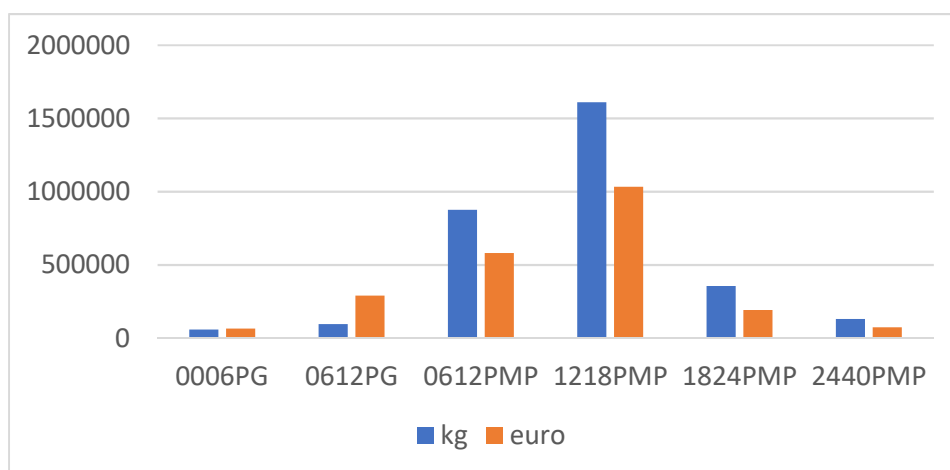


Table 3. Breakdown of total landings by species in 2021 by fleet segment in total landings (tonnes), value (EUR)

Species / scientific name	Species CODE / tonnes / EUR	VL0006 PG	VL0612 PG	VL0612 PMP	VL1218 PMP	VL1824 PMP	VL2440 PMP	TOTAL	Share in total landings in kg (%)	Share in total landings in EUR value (%)
Psetta maxima	TUR tonnes	0.211	19.9465	18.02	32.843	3.558		74.5785	2.38	
	TUR EUR	1 778	168 149	151 908.6	276 866	29 994		628 696.09		28.11
Sprattus sprattus	SPR tonnes	1.529	6.291	0.908	38.865			47.593	1.52	
	SPR EUR	1 131	4 656	671.92	28 760			35 218.92		1.57
Veined rapa whelk	RPW tonnes	11.402	1.238	789.555	1 493.35	343.691	106.942	2 746.1815	87.82	
	RPW EUR	4 789	520	331 613	627 209	144 350	44 915	1 153 395.9		51.57

Mytilus galloprovincialis	MSM tonnes	39.527		58.008		2.966	24.469	124.97	4.00	
	MSM EUR	46 247		67 868		3 471	28 629	146 215		6.54
Squalus acanthias	DGS tonnes		0.373	0.1	0.214			0.687	0.02	
	DGS EUR		985	264	564.96			1 813.96		0.08
Engraulis encrasicolus	ANE tonnes	3.508	35.271	0.067	0.15			38.996	1.25	
	ANE EUR	4 560	45 853	87	195			50 695		2.27
Mullus barbatus	MUT tonnes	0.019	1.722	0.505	32.215	0.034		34.495	1.10	
	MUT EUR	38	3 444	1 010	64 430	68		68 990		3.08
Trachurus mediterraneus	HMM tonnes	1.04	12.443	3.742	7.807	2.6168		27.6488	0.88	
	HMM EUR	2 111	25 261	7 596	15 848	5 312.1		56 128.1		2.51
Pomatomus salatrix	BLU tonnes	0.14	1.166	2.879	3.15	2.0168		9.3518	0.30	
	BLU EUR	637	5 306	13 099	14 332.5	9 176.44		42 550.94		1.90
Gobiidae	GPA tonnes	0.158	5.1515	0.5275	0.138			5.975	0.19	
	GPA EUR	245	7 986	817.62	213.9			9 262.52		0.41
Mesogobius batrahocephalus	MBF tonnes	0.011	1.107	0.088				1.206	0.04	
	MBF EUR	35	3 476	276				3 786.98		0.17
Alosa pontica	SHC tonnes	0.574	2.1055	0.031	0.6			3.3105	0.11	
	SHC EUR	2 503	9 180	135.16	2 616			14 434.14		0.65
Atherinidae	ATB tonnes		1.564					1.564	0.05	
	ATB EUR		1 517					1 517		0.07
Mugil cephalus	MUF tonnes			0.202				0.202	0.01	
	MUF EUR			1 313				1 313		0.06
Dasyatis pastinaca	JDP tonnes	0.088	2.046	0.72	0.754			3.608	0.12	
	JDP EUR	207	4 808	1 692	1 771.9			8 478.9		0.38
Belone	GAR tonnes		0.711					0.711	0.02	
	GAR EUR		3 576					3 576		0.16
Raja clavata	RJC tonnes		0.283	0.088	0.333			0.704	0.02	
	RJC EUR		583	181	685.98			1 449.98		0.06
Merlangius merlangus	WHG tonnes		2.94	0.03				2.97	0.09	
	WHG EUR		1 234	12.6				1 246.6		0.06
Liza aurata	MGA tonnes	0.042	1.053	0.794				1.889	0.06	
	MGA EUR	139	3 486	2 628				6 253		0.28
Alosa caspia	CUI tonnes	0.025	0.22	0.045	0.03			0.32	0.01	
	CUI EUR	47	411	84.15	56			598.15		0.03
Solea solea	SOL tonnes		0.056					0.056	0.00	
	SOL EUR		56					56		0.00
Sarda sarda	BON tonnes	0.023						0.023	0.00	
	BON EUR	47						47		0.00
Dicentrarchus labrax	SRK tonnes		0.106					0.106	0.00	
	SRK EUR		761					761		0.03

Total tonnes	58.297	95.7935	876.3095	1 610.45	354.883	131.411	3 127.1461	100	
<i>Total in EUR</i>	<i>64 514</i>	<i>291 248</i>	<i>581 258</i>	<i>1 033 549</i>	<i>192 371</i>	<i>73 544</i>	<i>2 236 484</i>		<i>100</i>
Share in total landings in kg (%)	1.86	3.06	28.02	51.50	11.35	4.20			
<i>Share in total landings in EUR value (%)</i>	<i>2.88</i>	<i>13.02</i>	<i>25.99</i>	<i>46.21</i>	<i>8.60</i>	<i>3.29</i>			

Table 4. Percentage breakdown for catches landed in 2021 by species and by fishing gear

Species/gear	TUR	SPR	RPW	MSM	GPA	MBF	SHC	HMM	AN E	GAR	BLU	MGA	ATB	DGS	WHG	RJC	MUT	MUF	JDP	%
TBB			76.25											0.003						76.25
NO			11.53	3.12																14.65
OTM		1.27						0.42			0.26						1.04		0.04	3.03
GNS	2.38				0.02	0.01	0.08	0.04	0.01		0.02	0.04		0.01		0.02	0.01		0.04	2.68
FPN		0.25			0.04	0.01	0.02	0.41	1.24	0.02	0.03	0.02	0.05		0.09		0.06		0.03	2.27
HMD				0.88																0.88
FPO			0.04		0.13	0.02														0.19
LHP					0.007	0.004		0.021												0.03
LLS														0.009		0.006			0.004	0.02
SB								0.002										0.006		0.01
Percentage	2.38	1.52	87.82	4.00	0.20	0.04	0.10	0.89	1.25	0.02	0.31	0.06	0.05	0.02	0.09	0.03	1.11	0.01	0.11	100

The table above shows that, in Romania, the most common fishing gears were TBB (beam trawl), accounting for 76.25% of the total gear used in 2021, followed by manual harvesting of molluscs by divers (14.65%), and the pelagic one-boat trawl (OTM) was used in a rate of 3.03% to catch small pelagic species.

In 2021, veined rapa whelk (87.82%) was fished with TBB (76.25%) and manually, with divers (11.53%), while small quantities were obtained using pots (0.04%). TBB is mainly used in the northern part of the coast, between Mamaia Bay and Sfântu Gheorghe, at depths between 17 and 30 m, and manual harvesting by divers mainly takes place in the southern part of the Romanian coast, between Constanța and Mangalia, at depths between 5 and 25 m.

As regards the landing sites, the largest quantities were recorded in the Midia Port for veined rapa whelk (80.59%), caught using TBB, and for turbot (40.38%), caught using GNS. Sprat caught using OTM (100%) was landed in the Edighiol Port. Figures 2 and 3.

Table 5. Percentage of species landed in 2021 by fishing segment and fishing gear

Fleet segment / gear	0006PG	0612PG	0612PMP	1218PMP	1824PMP	2440PMP	% per gear
TBB			14.09	47.76	10.99	3.42	76.26
NO	1.63		13.02				14.65
OTM			0.24	2.65	0.15		3.04
GNS	0.03	0.78	0.66	1.08	0.11		2.66
FPN	0.20	2.07	0.01				2.28
HMD					0.09	0.78	0.87
FPO	0.00	0.17	0.01				0.18
LHP	0.00	0.03					0.03
LLS		0.01		0.01			0.02
SB			0.01				0.01

% by segment	1.86	3.06	28.04	51.50	11.34	4.20	100.00
--------------	------	------	-------	-------	-------	------	--------

Figure 2. Breakdown of landings by port in 2021 and by specific gear for RPW (TBB), SPR (OTM), TUR (GNS) and other species

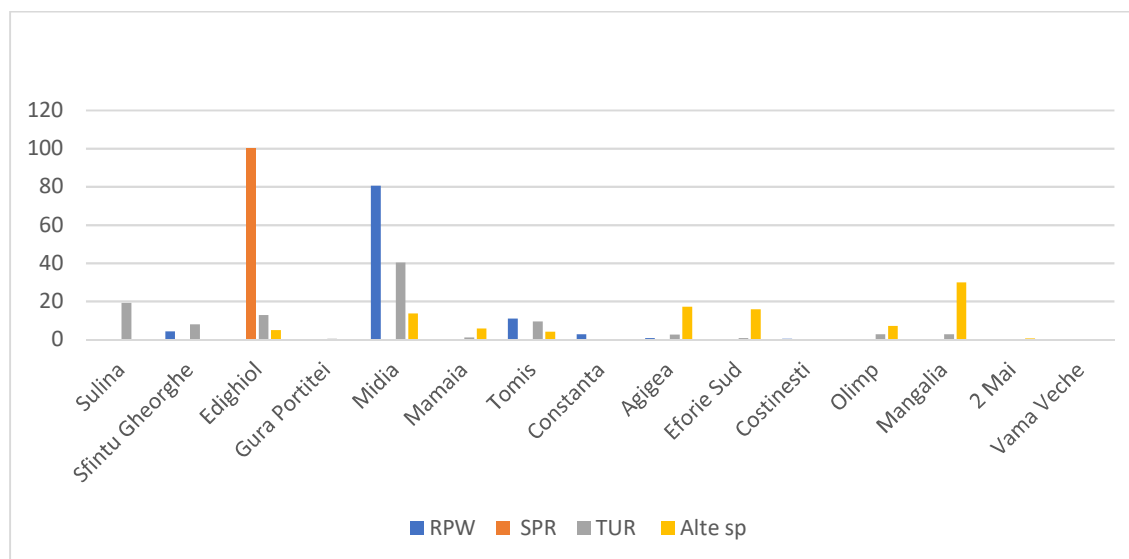
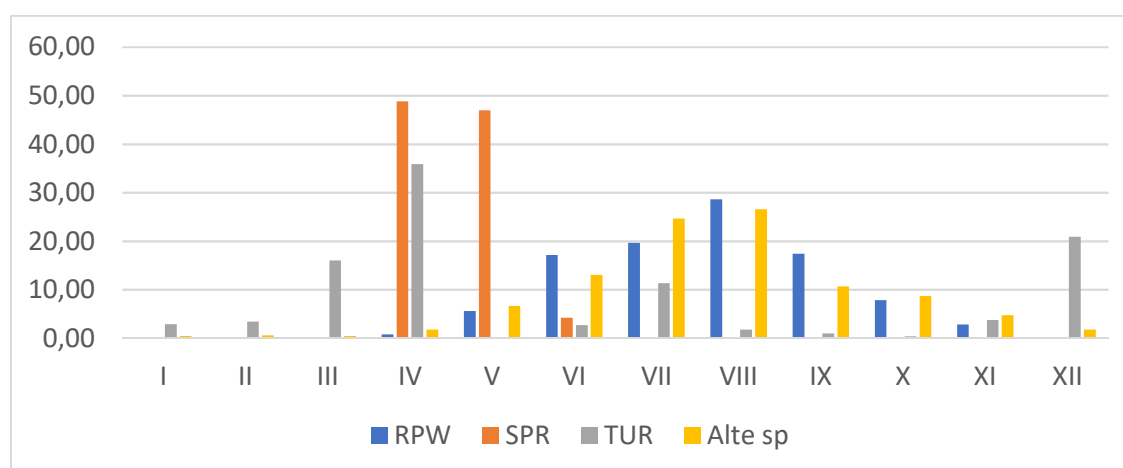


Figure 3. Breakdown of landings by month in 2021 for specific gears RPW (TBB), SPR (OTM), TUR (GNS) (GNS)



Since 2016, catches in Romania have been significantly reduced, in terms of both volume of landings and their value in EUR. More specifically, in 2021 catches fell by 29.93% in terms of quantity and by 19.31% in terms of value compared to 2020, and by 56.26% and 48.63%, respectively, compared to 2019; a decrease was also recorded, compared to 2016, both in quantity (54.28%) and in value (41.80%). Table 6, Figures 4, 5, 9.

Table 6. Share of landings in tonnes and value in EUR per fleet segment between 2016 and 2021

Year/to/ price	VL0006 PG	VL0612 PG	VL0612 PMP	VL1218 PMP	VL1824 PMP	VL2440 PMP	Total
2016 tonnes	17.619	147.681	1 458.4	3 797.154	360.543	1 058.051	6 839.443
2016 EUR	28 846	342 528	855 333	1 882 727	171 939	561 248	3 842 621

2017 tonnes	31.512	104.08	2 582.56	4 834.798	382.405	1 617.832	9 553.182
2017 EUR	37 872	334 314	1 232 934	2 082 617	153 557	679 203	4 520 497
2018 tonnes	122.043	97.169	2 558.57	3 582.811	265.62	1 118.779	7 744.996
2018 EUR	104 526	335 216	1 402 864	1 710 691	114 217	494 143	4 161 657
2019 tonnes	114.893	116.78	2 216.43	3 427.483	188.357	1 085.441	7 149.381
2019 EUR	118 838	348 829	1 321 954	1 906 468	102 422	554 835	4 353 346
2020 tonnes	50.572	147.857	1 330.06	2 093.103	124.35	716.959	4 462.905
2020 EUR	57 251	396 143	762 885	1 160 111	75 679	319 706	2 771 775
2021 tonnes	58.297	95.7935	876.31	1 610.453	354.8826	131.4105	3 127.1461
EUR 2021	64 514	291 248	581 258	1 033 549	192 371	73 544	2 236 484

During the period considered, i.e. 2016 to 2020, the highest catch volume (24.57%) and value in EUR (20.65%) were recorded in 2017, in the VL12-18PMP fleet segment, with a total number of 135 active vessels, followed by 2018, and the lowest volume was recorded in 2021, i.e. landing volume (8.04%) and value in EUR (10.22%), in the VL1824PMP segment. Table 6, Figures 4, 5, 6.

Figure 4. Share of landings in kg and their value in EUR between 2016 and 2021

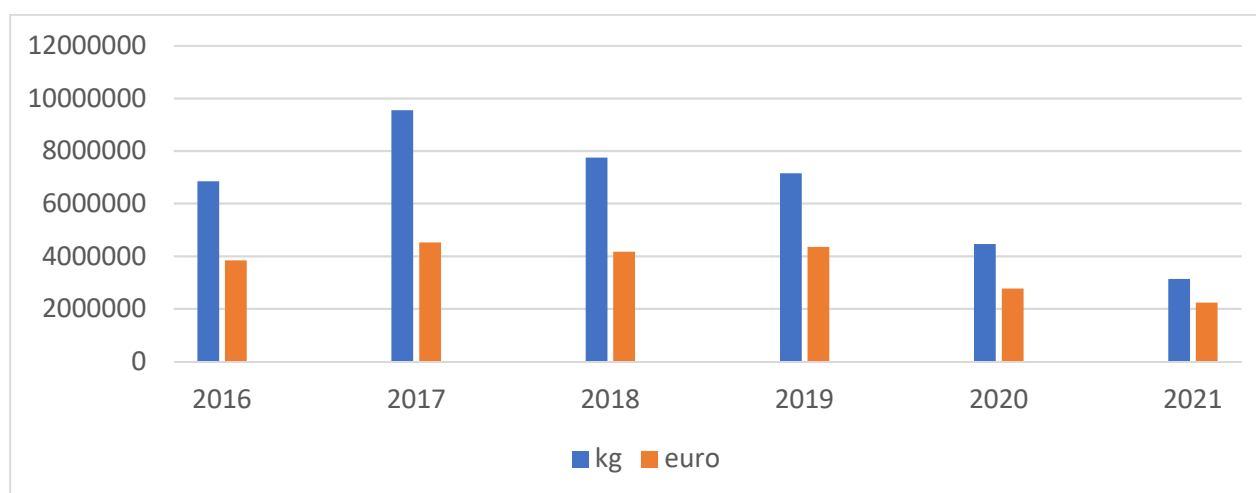


Figure 5. Trend in landed catches (tonnes) between 2016 and 2021 by fleet segment

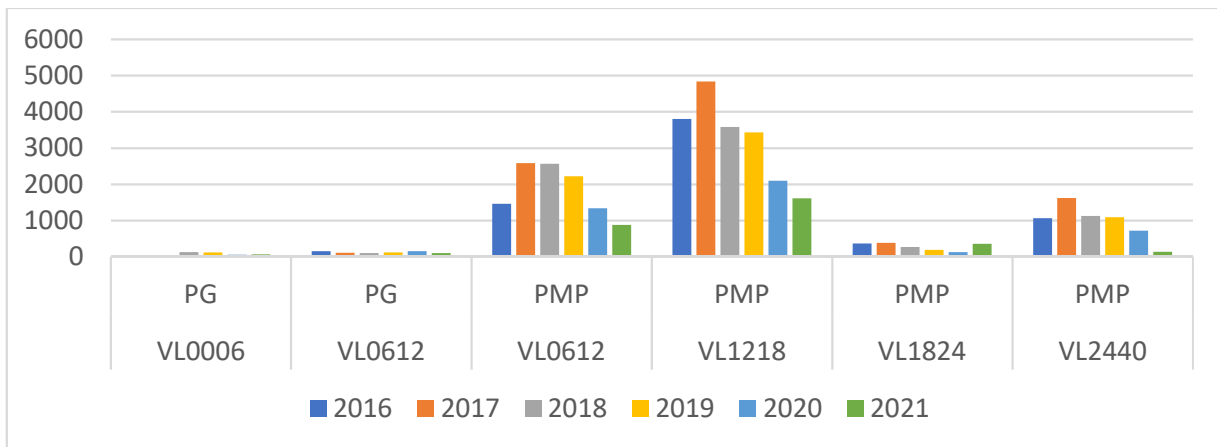


Figure 6. Trend in landings values (EUR) between 2016 and 2021 by fleet segment

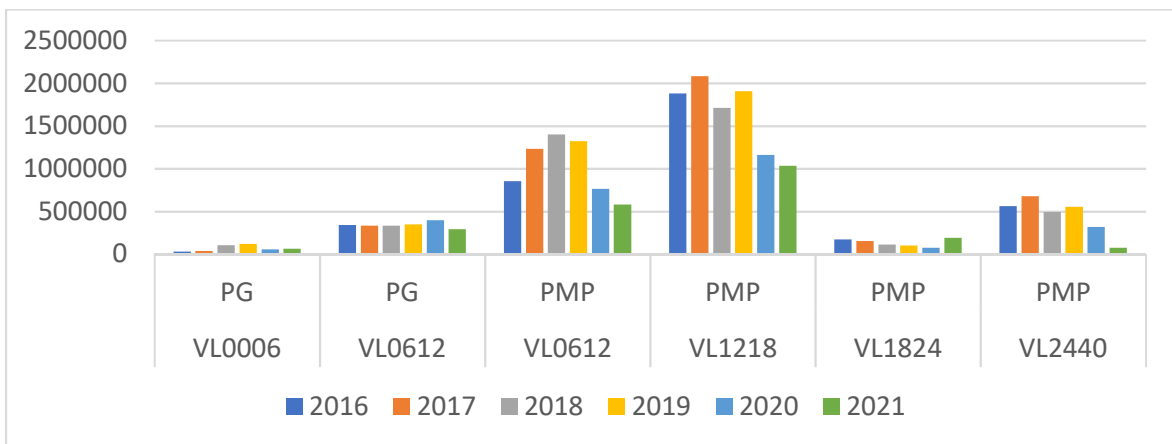


Figure 7. Trend in veined rapa whelk in kg and EUR between 2016 and 2021

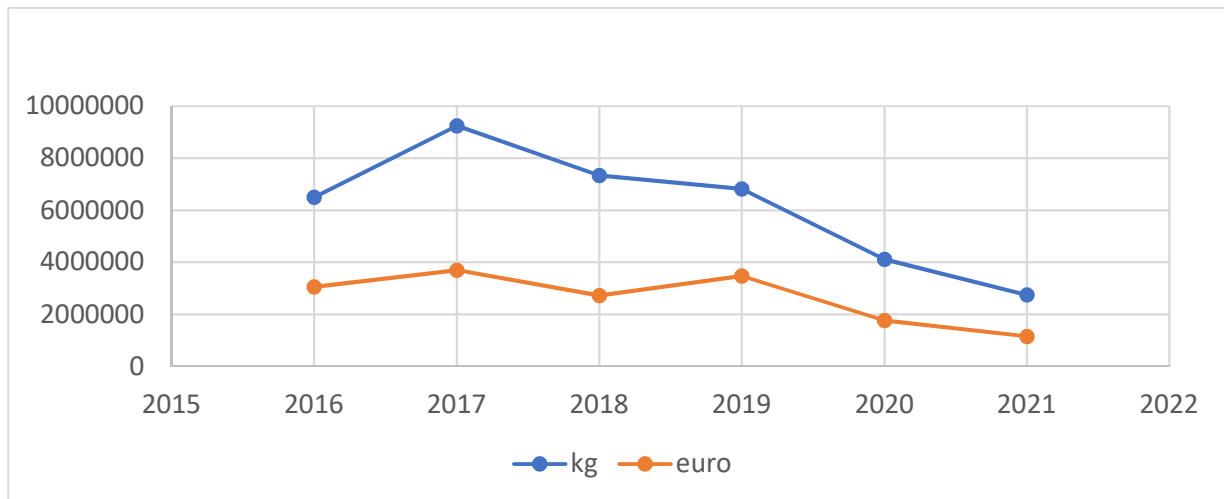


Figure 8. Trend in veined rapa whelk by fleet segment between 2016 and 2021

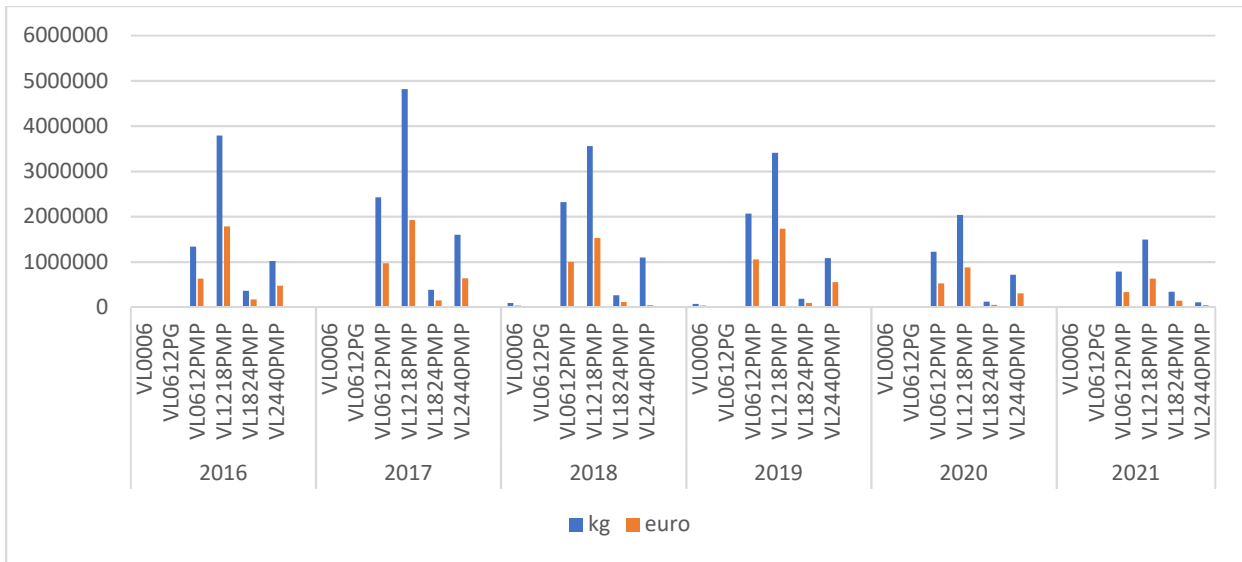


Figure 9. Trend in turbot landings and their value between 2016 and 2021

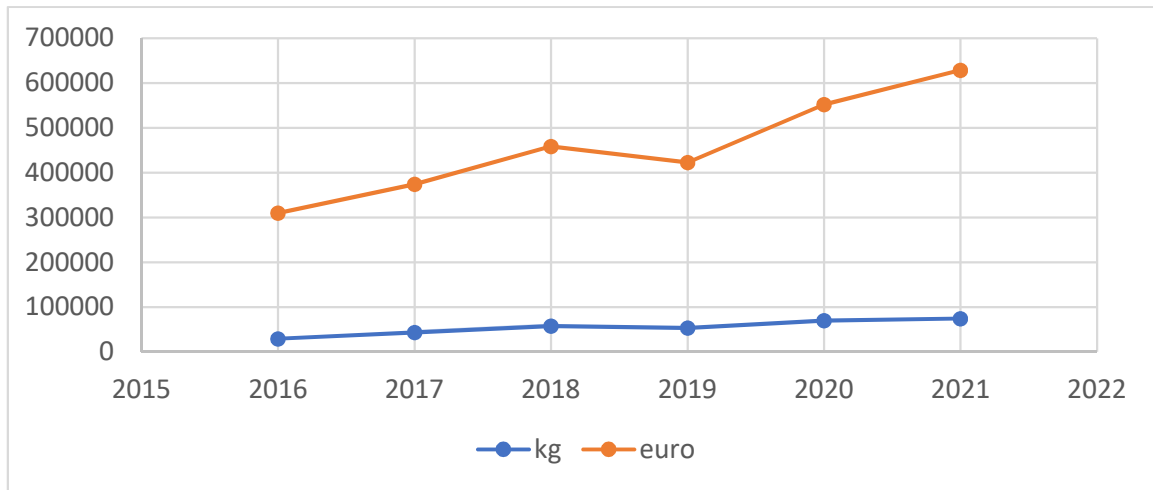


Figure 10. Trend in turbot by fleet segment between 2016 and 2021

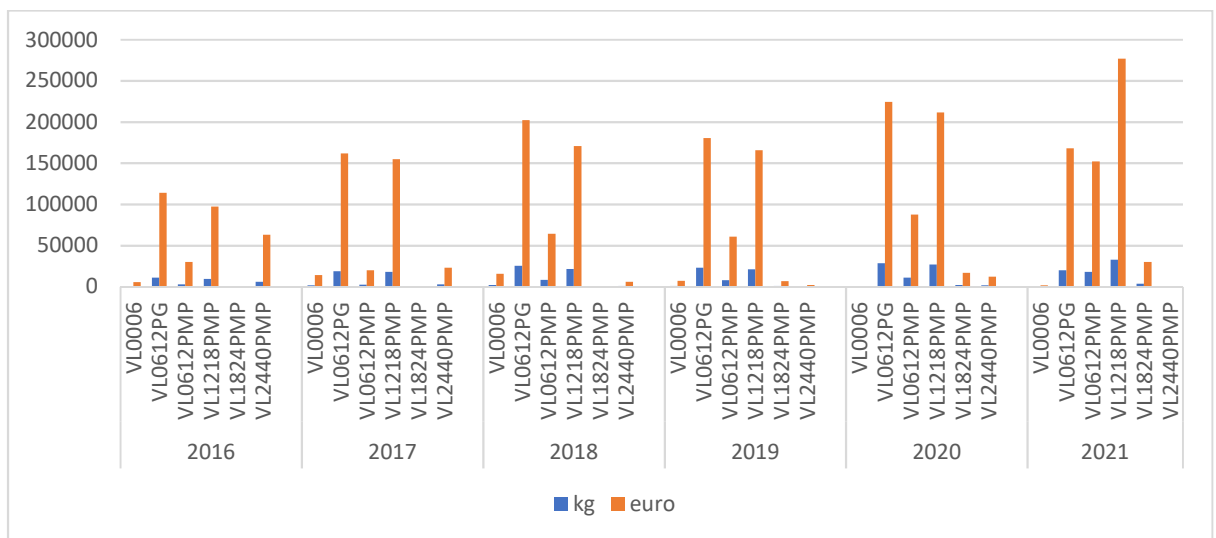


Figure 11. Trend in sprat landings and values between 2016 and 2021

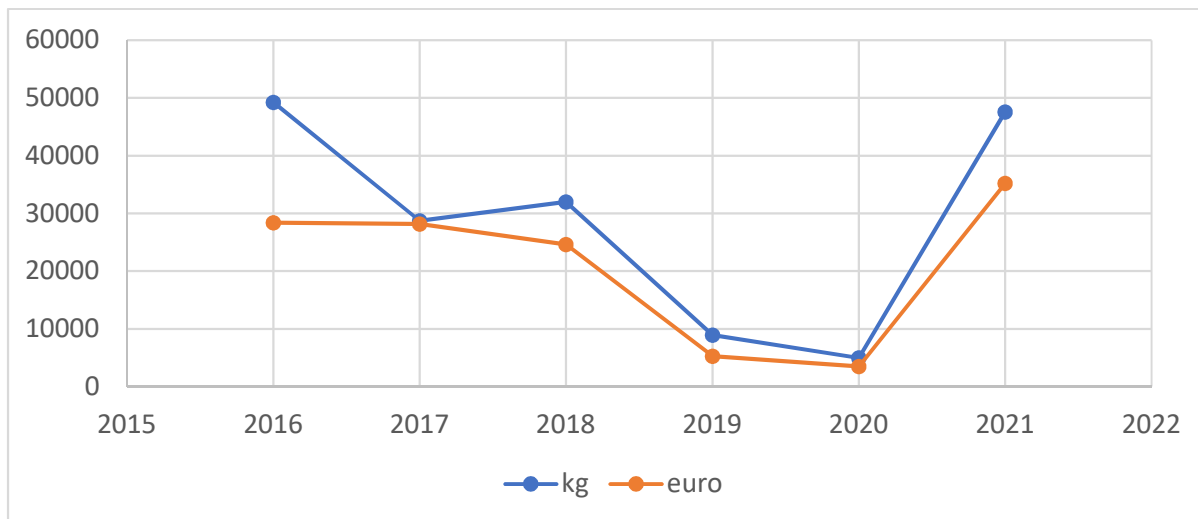


Figure 12. Trend in sprat by fleet segment between 2016 and 2021

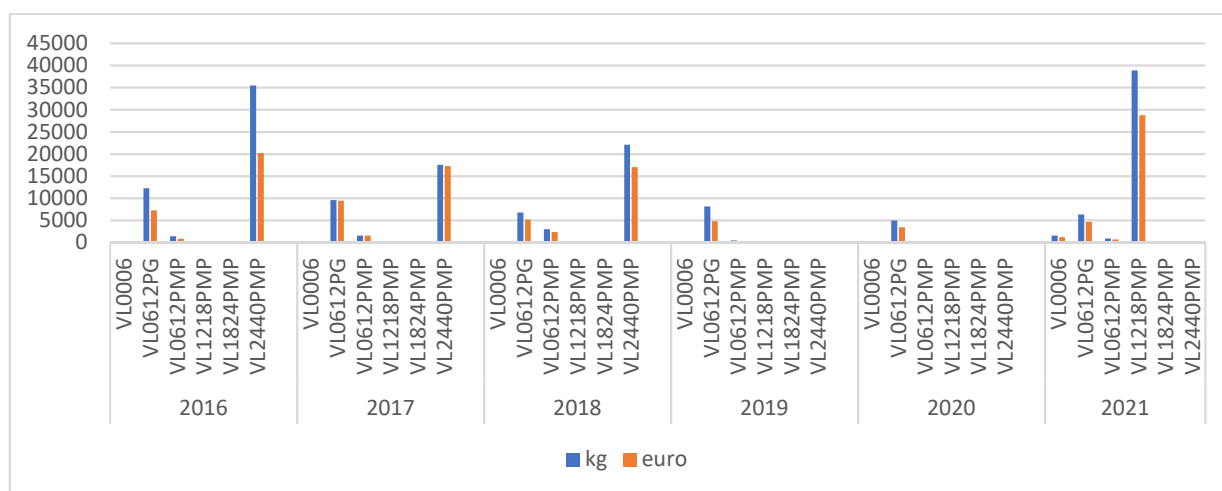


Table 7. Trend in fish stocks in the Black Sea (tonnes)

Species/year	2016	2017	2018	2019	2020	2021
Veined rapa whelk	14 000	17 500	17 500	15 000	15 000	15 000
Turbot	2 117	1 523	2 065	2 700	2 400	3 441
Sprat	114 653	23 269	42 599	124 000	92 398	93 677
Dogfish	1 550	1 223	5 556	2 000	2 150	4 135

As fishing activities are seasonal, involving rather difficult working conditions, fishermen tend to move towards other areas of activity that can provide them with a high level of financial support. In order to have a large number of highly qualified staff in the fisheries sector as well, specialised education institutions should train staff in the fisheries sector, however this requires financial support.

Please also note that the number of fishing days and of days at sea has been affected by:

- bad weather conditions (small number of days favourable to fishing activities, hence of fishing hours);

- the old fishing fleet, which is why technical failures and malfunctions often occur in the fishing operation);
- fishing activity is seasonal and the number of trips at sea depends on the presence of migratory fish species at different times of the year, large variations being recorded from one year to the next.

A.3 . Fleet development

The evolution of the Romanian fishing fleet between 31 December 2016 and 31 December 2021 is shown in Table 8.

Comparing 2021 with 2020, we notice both a reduction in terms of number of vessels in the fleet, by 6.86%, of tonnage, by 2.76%, and of engine power, by 1.27%, and an increase by 10.88%, compared to 2016, in terms of number of vessels.

In relation to each fleet segment, in 2021 compared to 2020, there is a substantial decrease in the VL0612m segment, followed by VL0006PG, and a significant increase in the VL1824 segment, from one vessel in 2020 to three vessels.

In 2021, the total fleet capacity recorded the lowest utilisation rate for the fishing activity, including 79.75 assets, accounting for 85.81% for GT and for 86.02% for kW.

The highest vessel utilisation rate in 2017 was 97.89% for GT and 98.43% kW for 135 active vessels, followed by 96.39% for GT and 98.65% kW for only 138 active vessels in 2019.

Despite the fact that small VL06-12 m vessels represent the largest segment in the fleet, i.e. 76.69% of the total, consisting of 125 vessels out of a total of 163 with 1 575.26 GT and 6 198.29 kW in total, this segment also records the largest number of active vessels, i.e. 60.73%; the values of GT (19.81%) and kW (26.23%) are very low. The highest fishing capacity rate in terms of GT and kW is found in the VL 12-18 segment of the total segment of 12.27% (20 vessels); active vessels accounted for 11.04%, with 37.85% GT and 40.23% kW, followed by the 18-24 m segment with 3 vessels and 20.19% GT and 13.65% kW.

Table 8. Trend in active and inactive vessels by fleet segment between 2016 and 2021

Vessels/ Year	VL0006			VL0612			VL1218			VL1824			VL2440			TOTAL		
	Vsl	GT	kW	Vsl	GT	kW	Vsl	GT	kW	Vsl	GT	kW	Vsl	GT	kW	Vsl	GT	kW
Active																		
2016	10	6.76	189.78	94	185.78	1 262.43	13	388.13	2 309.3	1	70	272.06	3	359	1 332.25	121	1 009.67	5 365.82
Inactive																		
2016	4	3.66	4.41	21	41.88	291.59	1	53.77	184	0	0	0	0	0		26	99.31	480
Total																		
2016	14	10.42	194.19	115	227.66	1 554.02	14	441.9	2 493.3	1	70	272.06	3	359	1 332.3	147	1 109	5 845.8
Active																		
2017	12	9.21	189.78	99	205.77	1 124.2	19	616.41	3 300.41	1	70	272.06	4	476	1 217.25	135	1 377.39	6 103.7
Inactive																		
2017	4	3.09	4.41	16	26.65	92.67	0	0	0	0	0	0	0	0		20	29.74	97.08
Total																		
2017	16	12.3	194.19	115	232.42	1 216.87	19	616.41	3 300.41	1	70	272.06	4	476	1 217.3	155	1 407.1	6 200.8
Active																		
2018	12	9.43	93.5	101	271.12	1 719.21	18	576.3	2 895.57	1	70	184	4	476	1 217.25	136	1 402.85	6 109.53
Inactive																		
2018	6	4.6	4.41	24	40.13	25.69	1	24.87	109	0	0	0	0	0		31	69.6	139.1
Total																		
2018	18	14.03	97.91	125	311.25	1 744.9	19	601.17	3 004.57	1	70	184	4	476	1 217.3	167	1 472.5	6 248.6
Active																		
2019	14	11.41	97.91	98	257.65	1 433.04	21	688.34	3 219.13	1	70	184	4	476	1 217.25	138	1 503.4	6 151.33
Inactive																		
2019	3	1.46	0	20	35.99	11.77	1	18.91	72.13	0	0	0	0	0		24	56.36	83.9
Total																		
2019	17	12.87	97.91	118	293.64	1 444.81	22	707.25	3 291.26	1	70	184	4	476	1 217.3	162	1 559.8	6 235.2
Active																		
2020	11	7.32	80.53	93	292.72	1 537.66	21	695.31	3 051.13	1	70	184	4	476	1 217.25	130	1 541.35	6 070.57
Inactive																		
2020	7	8.83	94.55	38	69.77	112.71	0	0	0	0	0	0	0	0		45	78.6	207.26
Total																		
2020	18	16.15	175.08	131	362.49	1 650.37	21	695.31	3 051.13	1	70	184	4	476	1 217.3	175	1 620	6 277.8
Active																		
2021	9	8.33	145.95	99	312.04	1 626.27	18	596.31	2 493.57	3	318	846.25	1	117	220	130	1 351.68	5 332.04
Inactive																		
2021	4	3.78	10	26	43.01	118.25	2	65.79	403	0	0	0	1	111	335	33	223.58	866.25
Total																		
2021	13	12.11	155.95	125	355.05	1 744.52	20	662.1	2 896.57	3	318	846.25	2	228	555	163	1 575.3	6 198.3

It is noticeable in Table 8 that, in 2021, a very small percentage of inactive vessels, i.e. 20.25%, with 14.19% for GT and 13.98% for kW, was not used. That was the year with the lowest level of fleet non-utilisation from 2016 to 2021. The lowest level of vessel non-utilisation was recorded in 2017, i.e. 2.11% for GT and 1.57% for kW, for only 12.90% inactive vessels, followed by 2019, i.e. 3.61% for GT and 1.35% for kW for 14.81% vessels. Of the total fishing capacity recorded in the fishing fleet register as at 31 December 2021, the utilisation capacity was only 79.75%, with 85.81% for GT and 86.02% for kW.

Figure 13. Trend in the total number of vessels in the Romanian fleet between 2016 and 2021

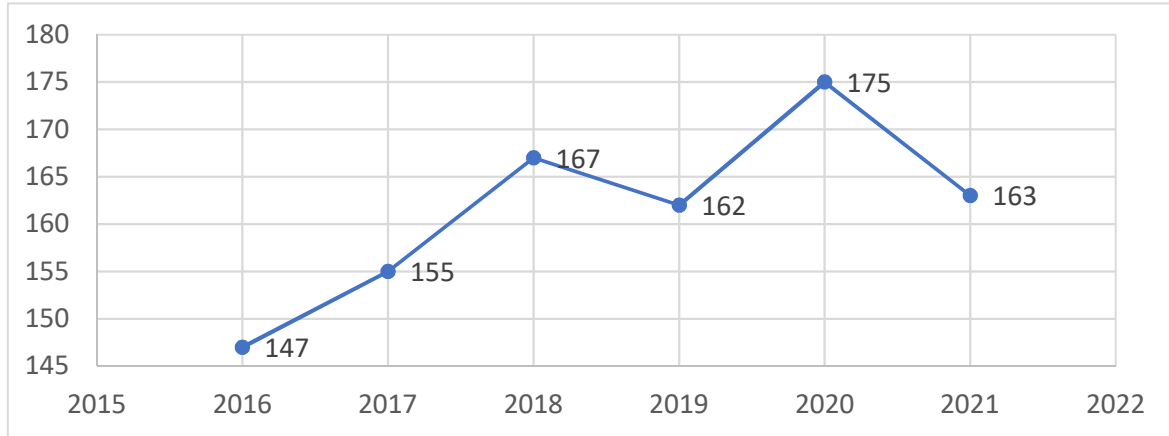


Figure 14. Trend in fishing capacity by fleet segment between 2016 and 2021

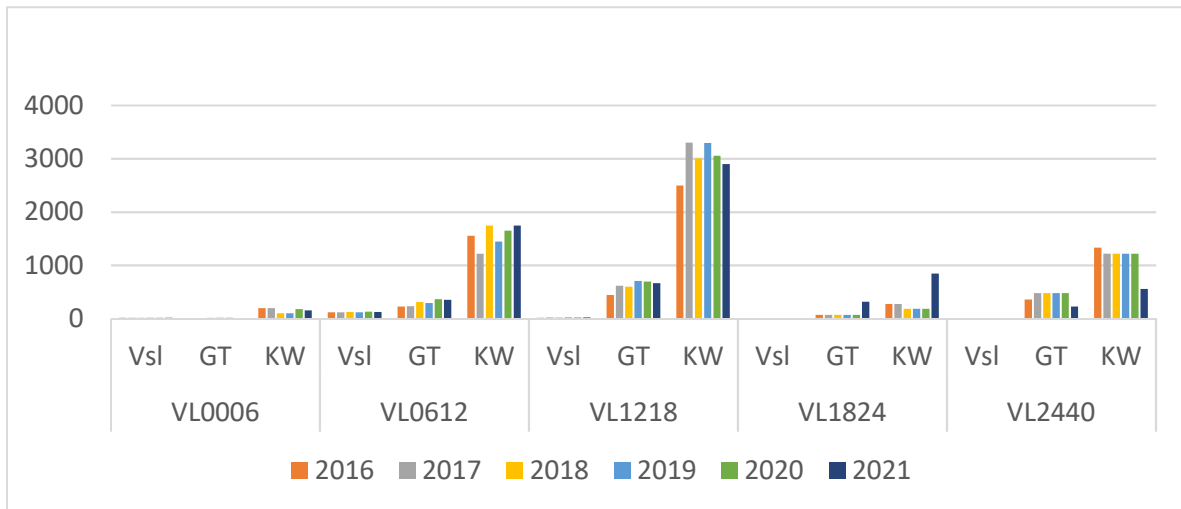


Figure 15. Trend in tonnage by fleet segment between 2016 and 2021

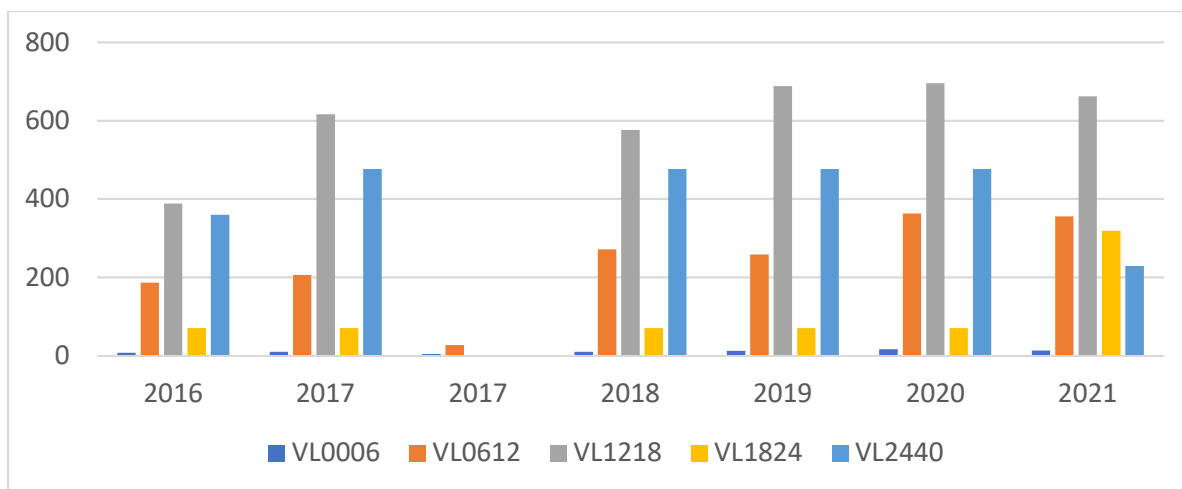
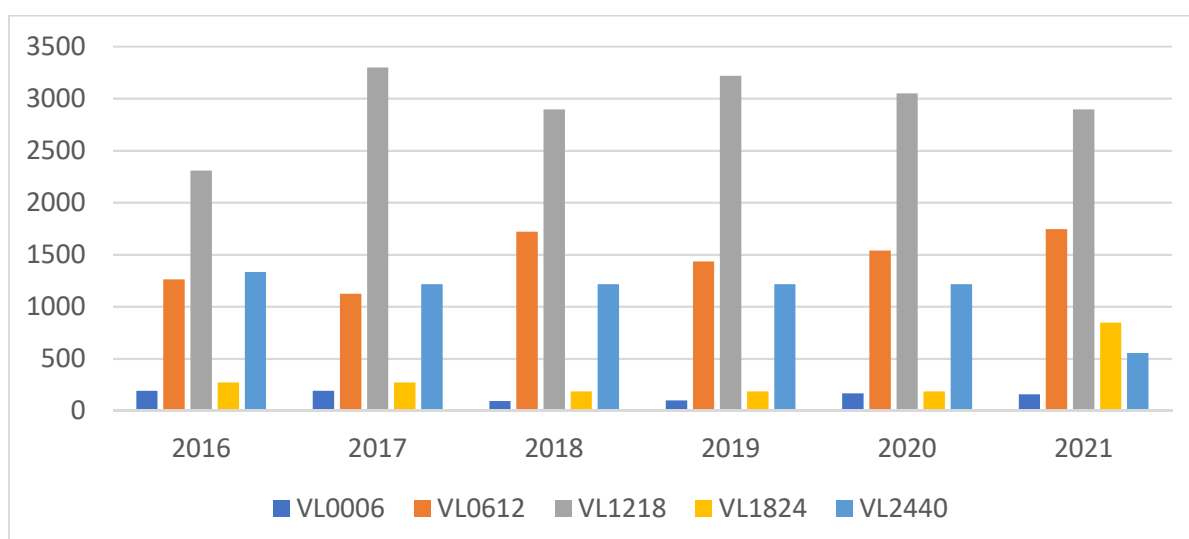


Figure 16. Trend in kilowatts by fleet segment between 2016 and 2021



B. Impact of fishing effort reduction schemes on fishing capacity

B.1. Report on effort reduction schemes

In 2021, the temporary discontinuance of the fishing activity included a series of restrictions for the entire fishing fleet, which targeted turbot, dogfish, gobies, and the fishing fleet had to shift towards fishing for other species.

The annual closed season order sets out the closed fishing seasons and areas, and areas for the protection and biological recovery of living aquatic resources. The effect of fleet management and of the COVID-19 pandemic led to a reduction by 15% in the number of fishing days in 2021, compared to 2020 and by 17% in the number of days at sea. As shown in Tables 9 and 10, the highest reduction in the number of fishing days and days at sea was in the VL2440PMP fleet segment, given the loss of three vessels which migrated to the previous VL1824PMP segment as a result of the change in the Romanian Naval Authority's legislation, which involved using a new method for calculating vessel length. An increase in the number of fishing days and days at sea was recorded in the VL1824PMP segment, which is due to the increase in the number of vessels from 1 in 2020 to 3 vessels in 2021, which came from the VL2440PMP segment.

Table 9. Reduction of fishing effort between 2016 and 2021 (in fishing days) and trend in 2021, compared to 2020

Fleet segment	2016	2017	2018	2019	2020	2021	Trend in 2021, compared to 2020
VL0006PG	231	188	433	537	336	324	-4%
VL0006PG	1150	1331	1357	1592	1471	1255	-15%
VL0612PMP	1194	1744	1807	1215	709	805	14%
VL1218PMP	839	1001	1087	1186	1117	783	-30%
VL1824PMP	68	102	85	71	65	142	118%
VL2440PMP	265	404	296	306	259	74	-71%
Total	3 747	4 770	5 065	4 907	3 957	3 383	

Table 10. Reduction of fishing effort between 2016 and 2021 (in days at sea) and trend in 2021, compared to 2020

Fleet segment	2016	2017	2018	2019	2020	2021	Trend in 2021, compared to 2020
VL0006PG	276	204	486	580	344	327	-5%
VL0612PG	1 328	1 352	1 641	1 869	1 675	1 317	-21%
VL0612PMP	1 294	1 761	1 899	1 332	820	854	4%
VL1218PMP	855	1 029	1 224	1 452	1 189	904	-24%
VL1824PMP	70	102	87	75	69	150	117%
VL2440PMP	270	411	313	311	266	85	-68%
Total	4 093	4 859	5 650	5 619	4 363	3 637	

B.2. Impact of effort reduction schemes on fishing capacity

During the period of application of the previous EFF measures ‘Permanent cessation of fishing activities’, the scrapping operation financed by the EFF, which started in the second half of July 2010 and ended in the first half of December 2013, resulted in the scrapping of 16 vessels in the following segments: VL06-12 = 10 vessels, VL12-18 m = 1 vessel, VL18-24 m = 1 vessel and VL24-40 m = 4 vessels. All these vessels had a total capacity of 596.43 GT and 1 796.85 kW.

In 2021, no vessels were scrapped under the FMAOP in Romania.

C. Statement of compliance with entry/exit scheme and with level of reference

In accordance with the Common Fisheries Policy and the fleet capacity ceiling laid down in Annex II to Regulation (EU) No 1380/2013, Romania complies with the fishing capacity established.

Pursuant to these provisions, i.e. management measures of the entry/exit scheme used in 2021, Romania has fulfilled its commitments related to the ceiling levels, more specifically the actual total GT is 1 575.26 tonnes (85.56% lower than the reference level) and the engine power is 6 198.29 kW (97.52% lower than the reference level), which are below the maximum levels of 1908 GT and 6 356 kW.

As mentioned above, with regard to the entry/exit scheme, Romania operates below the ceiling, in terms of both KW and GT, as set out in the Regulation, since, before its accession to the EU, there had been no capacity ceilings.

Each entry (or increase in tonnage or engine power) in the fleet register was accompanied by the withdrawal of at least the same quantity from the fleet. Romania can thus ensure that the capacity of the national fleet in tonnage (GT) and (kW) is equal to or less than the reference level at the date of accession to the EU, in accordance with Article 23 of Regulation (EU) No 1380/2013.

In 2021, 19 vessels left the fleet (56.26 GT and 204.41 kW), VL06-12 m = 18 vessels (23.05 GT and 49.85 kW), with an average length of 8 m, and having the average age of 18 years, and 1 vessel of 14.85 m with 33.21 GT and 154.56 kW aged 5.

Eight vessels entered the fleet, totalling 11.81 GT and 92.52 kW, with an average length of 8.20 m, having the average age of 9 years, in the VL06-12 m segments, of which four are equipped with engines and four are without engines.

The conclusion is that the management of the fishing fleet capacity does not exceed the fleet capacity levels reported in 2021 – see Table 11.

Table 11. Capacity of the Romanian fleet operating in the Black Sea as at 31 December 2021

	GT	kW
Reference level as at 1 January 2007	2 315	7 473
Fleet status as at 1 January 2007	2 504	8 153
Reference level as at 31 December 2020	1 908	6 356
Fleet status as at 31 December 2021	1 575.26	6 198.29
% of reference level	85.56%	97.52%
Exits as at 31 December 2021	56.26	204.41
Entries in 2021	11.81	92.52

D. Strengths and weaknesses of the fleet management system together with a plan for improvements and information on the general level of compliance with fleet policy instruments

D.1. Summary of strengths and weaknesses of the fleet management system

D.1.1. Strengths

- Presence of inspectors in ports and on landing sites, especially for turbot, which, apart from the power of effective control, provides an opportunity to provide stakeholders with important fisheries management information
- Enhanced monitoring and control activities that improve proper fisheries management through improved communication with fishermen and continuous monitoring of fishing vessels, in particular those targeting turbot
- Raising awareness of stakeholders in the industry through information campaigns, regular meetings and publication of information on the website of the National Agency for Fisheries and Aquaculture (ANPA)

- Cooperation with other national authorities, good collaboration at institutional level with other institutions and organisations involved in control, inspection and enforcement activities
- Joint action plans – ANPA updated an action plan in 2020, at national level, together with the Ministry of the Interior, the National Sanitary Veterinary and Food Safety Authority (ANSVSA), the Ministry of Environment, and the National Agency for Fiscal Administration, with a view to carrying out controls in mixed teams, based on mutual request, which provides for regular reporting of data on inspections carried out by these institutions in accordance with their specific tasks. On the basis thereof, annual plans are established, by mutual agreement, to control and combat IUU fishing, illegal transport and trade in fish and other aquatic resources at regular meetings held at central and local level
- The Coast Guard of the Ministry of the Interior has updated a cooperation plan which comprises permanent exchange of information, including access to ANPA’s database, namely VMS, for surveillance of fishing activity outside ANPA’s working hours and for the provision of information on vessels/boats carrying out fishing activities at sea, and is planning and conducting inspections or surveillance activities at sea, based on the national risk analysis
- Existence of fishing resources of economic value
- Long-standing tradition in fisheries with an impact on local and regional communities Local and long-standing tradition in small-scale fishing (coastal fishing), and primary processing knowledge
- Existence of fisheries research infrastructure and personnel
- Existence of well-trained personnel, with professional experience in the field of control
- Good collaboration at institutional level with other institutions and organisations involved in the experience gained between 2012 and 2019 with international collaborations and initiatives, in particular in the implementation of the Romania-Bulgaria Joint Control Programme; control, inspection and implementation activities
- New actions and strategies developed with the EU, EFCA and GFCM (in particular for small-scale fishing)

D.1.2. Weaknesses

- Underdeveloped specific infrastructure (ports, landing sites, points of first sale)
- Absence of facilities at landing sites for primary processing, and of temporary storage sites for catches not taken over immediately after landing
- Obsolete technique and equipment (engines, auxiliary equipment)
- Limited State support to the industry (lack of subsidies, lack of credit facilities)
- No projects to replace or upgrade engines have been funded under the FMAOP and, due to scarce financial resources, fishermen preferred second-hand purchases
- Low profitability due to high production/operating costs and environmental restrictions. Rising fuel prices and the use of old, inefficient and fuel-intensive engines, coupled with the lack of any form of compensation for the fuel used in commercial fishing, have led to an increase in production costs
- Fluctuating fish stocks. Fishing activity is dependent on the weather conditions in the Black Sea, featuring large temperature differences between summer and winter, and very strong winds. Marine fishing in Romania is characterised by an activity that is carried out during the first months of the fishing season (March to October), when the main commercial fish species arrive in the coastal area for spawning and feeding
- Limited financial capacity of vessel owners and the fact that those involved in fishing do not have the financial resources to develop their activity, engaging in a rather subsistence activity, while also lacking any form of tax relief granted by the State. Furthermore, they have expressed their difficulties in securing income during the period of unfavourable hydro-climatic conditions, when they cannot carry out any fishing activity
- Lack of night-time monitoring equipment required for control and inspection

- Reluctance on the part of fishermen and fisheries enterprises to provide data, especially of an economic nature
- Small investment in replacing fishing gears by more selective ones and in ensuring safe conditions for fishing vessels and better working conditions
- Low capacity of human capital involved in fisheries
- High average age of fishermen in the industry
- Relatively low average fish consumption per capita compared to the European average
- Technically worn vessels, lacking the capacity to ensure the quality of the catches up to the landing site
- Low profitability due to high production/operating costs and environmental restrictions
- Inefficient techniques and equipment (engines, fishing methods and gear)

D.1.3. Possible solutions foreseen for improvement:

- Developing fisheries-related tourism and diversifying activities
- Upgrading ports and landing sites used for the operation of commercial fishing vessels Currently, the Black Sea fishing vessels over 12 m long, due to the fact that the Black Sea fishing activity is dynamic and dependent on fish feeding migration, can land in different ports such as Sulina, Sf. Gheorghe, Midia, Constanța and Mangalia Given the favourable fishing areas, the Midia and Mangalia ports will be given priority for the upgrade/development of the facilities serving fishing vessels (unloading, storage, sale, maintenance and repair of vessels, supply of fuel, water, ice)
- Developing the internal consumer market with high absorption potential
- Providing for non-repayable financial support under the Fisheries and Maritime Affairs Operational Programme
- Creating the possibility of primary processing on board vessels
- Availability of equipment and of vessels and equipment necessary to maintain the quality of catches up to the landing sites
- Developing research and ensuring the large-scale implementation of research results
- Organising, designing, implementing and operating an information system for licences, licensing and reporting of fisheries and trade in fisheries products
- Strengthening the framework for multidisciplinary collaboration between fishermen, processors, research institutes/academia and public authorities with relevant responsibilities
- Developing fisheries-related tourism and diversifying activities complementary to fisheries

D.1.4. Risks:

- Inadequate organisation of the catch distribution and marketing chain
- One of the issues reported by most of the actors involved in commercial fishing is that they face difficulties in effectively selling fish species
- Ineffective management of shared fish stocks at Black Sea basin level and the inadequate management of Black Sea fisheries is a reality in that, despite the noticeable declining stocks, fishing effort continues to increase at regional level. At regional level, there is no agreed system in place for adjusting catches in relation to the fish stock status; the regulations promoted by each country are not harmonised in terms of closed seasons, minimum catch size, etc.
- Between 2016 and 2021, GFCM adopted a whole series of recommendations aimed at managing species under observation in all EU waters. As regards the Black Sea, namely GSA 29, the specificities of the recommendations adopted show a clear trend towards reducing the fishing effort and strengthening control, and diversifying control and inspection activities, also by engaging other international institutions (EMSA, FRONTEX, EFCA, etc.) and by implementing pilot projects involving all coastal states
- Limited access to bank loans. Access to funding for SMEs remains difficult and costly. One of the main difficulties is the very long time of response from banks to loan applications from potential beneficiaries

- Illegal, unreported and unregulated (IUU) fishing and its influence on the sustainable exploitation of fish stocks
- Existence of abandoned/lost fishing gear in commercial fishing areas Coastal and offshore fishing activities generate a large number of abandoned/lost nets and debris at sea, which require actual reporting by fishermen, the Environmental Guard, ANPA or assessment by the research sector, including the provision of funds for their recovery
- Failure to comply with the landing obligation
- Incorrect/incomplete records / missing documents
- Failure to comply with space and time restrictions
- Use of illegal/non-compliant fishing gear
- Increase in the number of days with extreme weather conditions, unfavourable to fisheries

D.2. Plan for improvements on the fleet management system

The electronic reporting system (ERS), as laid down by Regulation (EC) No 1224/2009, is to replace the paper logbook and landing declarations and ensure that data is recorded, transmitted and exchanged in an accurate and rapid manner. In addition, the sales notes of all registered first sale buyers are planned to be recorded electronically, with more accurate, ensuring more accurate and rapid recording and transmission of transaction data (points of first sale).

There has been significant progress in this process and Romania has now put in place an integrated solution that has consolidated and implemented communication mechanisms to synchronise fleet information with the Commission database. This process has involved the automated online transmission of both information on fishing activities, as required by the Commission for vessels of more than 12 m long, and the monthly catch amounts of the other categories of fishing vessels. This enables to plan transition to automation of the entire process by making it possible to check the consistency between the information to be entered in the database and the information on paper and Excel, which is a very important process in the digital transformation of fisheries management. This process will be completed in the forthcoming period.

By holding the fleet database which includes the management of licences, authorisations and quotas, Romania sets the stage for transition towards automated fisheries management. The process is difficult not because of the existing ICT tools, but because of the uptake by end-users (fishermen), as the system targets persons with extremely low ICT skills.

During the reporting period, Romania managed to replace the ERS solution installed on board vessels of more than 12 m long, which proved to be quite complicated for fishermen, impacting directly the quality of the reported data, with a solution tailored to the specific needs of Romania's fisheries management. This action is part of the strategy to digitise the associated processes, which aimed at increasing the quality of data reported through ICT tools.

The new IT solution has managed to streamline the reporting process, going into 'production' in mid-September 2021. The transition process involved changing the technology on board vessels and training the in-house and external personnel to enable the system to function in accordance with the requirements defined during the design and in line with the requirements of fisheries management, as inferred from the European Commission Regulation.

The new IT solution makes it possible to monitor fishing vessels more closely due to the fact that the new support terminals have dual communication capabilities (GSM and satellite), which was possible on account of the specificities of the Romanian fleet operating not far from the shores of the Black Sea.

Although the implementation of the new ICT solution took into account functionalities across all domains (fleet, fisheries management, ISC), not all implemented functionalities are used due to the lack of alignment between the technological upgrade of the infrastructure, on the one hand, and the end-user uptake, on the other hand. In fact, the system still operates simultaneously with paper-based reporting.

After ensuring the quality of the reporting process, the requirements of automated reporting to the Commission using the FLUX infrastructure will be put in place.

Romania has implemented the interconnection of the flow system and closed the VMS domain, and currently exchanges VMS data with both the Commission and EFCA, and with one Member State (Bulgaria).

During the reporting period, due to the change in the communication technology solution, the necessary reconfigurations were made to transmit position information via FLUX. The process involved some dysfunctions in the transmission of monitoring information, but these were dealt with throughout the transition process.

During the reporting period, Romania started working regularly on a solution to ensure the implementation of fleet communication scenarios, by responding to and promptly resolving the requests for verification and settlement of the inconsistencies reported by the Commission representatives.

Romania implements the Commission's control and inspection plan under EFCA's guidance, as mentioned above. Romania has now implemented control reports electronically and is in the process of adding mobility to the areas of inspection and control by purchasing mobile devices for each inspector together with the required application that will automatically input the data into the central system. This step is mandatory for transition to the implementation of the ISC scenario for communicating the associated information through the FLUX infrastructure. Unfortunately, digitisation is a cumbersome process due to complicated procurement procedures.

D.3. Information on the general level of compliance with fleet policy instruments

In September 2021, a new application for electronic fishing logbook management (ERS) was installed on board fishing vessels over 12 metres long. As from 1 January 2022, information on fishing activities of vessels over 12 metres long will only be reported electronically. Several significant progresses have been recorded during the last reporting period on Romania's compliance with Regulation (EU) No 1224/2009.

In the area of vessel monitoring:

- further vessel monitoring using the new VMS system that enables transmission of information both by satellite and terrestrial means (GPRS);
- maintenance and evolution of the integration of the VMS system into the FLUX infrastructure and exchange of information with the Commission (DG MARE), EFCA and other Member States in line with the developments in the industry.

In the area of fleet:

- maintenance and evolution of the IT solution for fleet management and its integration into the FLUX infrastructure;
- consolidation of fleet register information from various sources and data cleansing to reflect the historical and current situation;
- further integration of the fleet register into the FLUX infrastructure and implementation of the remaining scenarios pursuant to the Commission Regulation.

In the area of fisheries:

- maintenance and development of the existing solution in accordance with the requirements of the Commission Regulation;
- implementation of a new ERS solution that ensures better integration with fleet management and with inspection and control management;
- digitisation of fisheries management by transforming the sales notes into electronic format;
- creation of the buyer database and of the necessary mechanisms to digitise the catch marketing process;
- improvement of the management of trademarks and equipment associated with fisheries management;
- implementation of cross-checking mechanisms, as required by the Commission.

In the area of inspections and controls:

- completion of the purchase of IT solutions that ensure the digitisation of inspectors' work and their equipment with modern technologies (tablets) to be able to report their work directly in the new database.

E. Information on changes of the administrative procedures relevant to fleet management

Compared to the previous year, there have been no changes in the administrative procedures for the fishing capacity management. The main fleet management measures in place are:

- a system of annual allocation of fishing opportunities, based on scientific studies, by fishing vessel capacity, targeting species under EU TACs and national allocations in a system of vessel authorisation based on allocation schemes including specific criteria for allocation of fishing opportunities;
- organisation of meetings between fishermen, scientists and the national authority implementing the CFP and national legislation;
- instruction of annual seasonal closure for fishing of the most relevant species in the area;
- determination of the fishing effort and listing of fishing gears under an annual order of the responsible authority;
- designation and authorisation of landing sites and points of first sale for landing and marketing of fish catches from commercial fishing in natural fish habitats;
- [measures for the restoration and conservation of sturgeon populations in natural fish habitats](#);
- determination of technical characteristics, conditions for the use of gear permitted in commercial fishing and methods of commercial fishing in marine and inland waters;
- organisation and functioning of the register of registered buyers in the Black Sea fisheries sector.

F. Assessment and exploration of indicators

The technical, biological and economic indicators are calculated using the latest version of the Commission Guidelines (COM(2014) 545 final) of 2.9.2014 'Guidelines for the analysis of the balance between fishing capacity and fishing opportunities according to Art 22 of Regulation (EU) No 1380/2013'. The data collected under the National Data Collection Programme (DCF) (source: INCDM) were used to calculate the indicators and are provided for each fleet segment in 2020, as set out below.

F.1. Technical indicators

Romania has calculated technical indicators or vessel use indicators for all vessels active in 2016, 2017, 2018, 2019 and 2020. Vessels were considered active if they had a fishing licence and authorisation and reported at least one day at sea. Vessels with or without a fishing licence and authorisation are considered inactive during the reference year if they did not set sail for fishing even a single day (due to pandemic, repairs, change of ownership, labour shortage, exceptional weather conditions, etc.).

The Vessel Utilisation Ratio (VUR) describes how intensively vessels in a fleet segment are used. If more than 20% of the fleet segment is inactive, a technical inefficiency or unusable capacity is indicated, except in cases where there were unforeseen events.

Looking at the period from 2016 to 2020 and comparing the number of inactive fishing vessels with the total number of vessels in each fleet segment, it is noticeable that the highest percentage of inactive vessels was recorded in 2020 (25.71%) with 45 vessels, the VL0612 m segment having the most vessels (38 vessels) followed by the VL0006 segment (7 vessels). Table 12, Figures 17 and 18.

Table 12. Trend in inactive vessels in relation to the total number of fleet vessels between 2016 and 2020

Vessels/ Year	VL0006			VL0612			VL1218			VL1824			VL2440			TOTAL		
	Vsl	GT	kW	Vsl	GT	kW	Vsl	GT	kW	Vsl	GT	kW	Vsl	GT	kW	Vsl	GT	kW
<i>Inactive</i>																		
2016	4	3.66	4.41	21	41.88	291.59	1	53.77	184	0	0	0	0	0	0	26	99.31	480
Total																		
2016	14	10.42	194.19	115	227.66	1 554.02	14	441.9	2 493.3	1	70	272.06	3	359	1 332.3	147	1 108.98	5 845.82
<i>Inactive</i>																		
2017	4	3.09	4.41	16	26.65	92.67	0	0	0	0	0	0	0	0	0	20	29.74	97.08
Total																		
2017	16	12.3	194.19	115	232.42	1 216.87	19	616.41	3 300.4	1	70	272.06	4	476	1 217.3	155	1 407.13	6 200.78
<i>Inactive</i>																		
2018	6	4.6	4.41	24	40.13	25.69	1	24.87	109	0	0	0	0	0	0	31	69.6	139.1
Total																		
2018	18	14.03	97.91	125	311.25	1 744.9	19	601.17	3 004.6	1	70	184	4	476	1 217.3	167	1 472.45	6 248.63
<i>Inactive</i>																		
2019	3	1.46	0	20	35.99	11.77	1	18.91	72.13	0	0	0	0	0	0	24	56.36	83.9
Total																		
2019	17	12.87	97.91	118	293.64	1 444.81	22	707.25	3 291.3	1	70	184	4	476	1 217.3	162	1 559.76	6 235.23
<i>Inactive</i>																		
2020	7	8.83	94.55	38	69.77	112.71	0	0	0	0	0	0	0	0	0	45	78.6	207.26
Total																		
2020	18	16.15	175.08	131	362.49	1 650.37	21	695.31	3 051.1	1	70	184	4	476	1 217.3	175	1 619.95	6 277.83

Figure 17. Percentage of inactive vessels in total vessels between 2016 and 2020

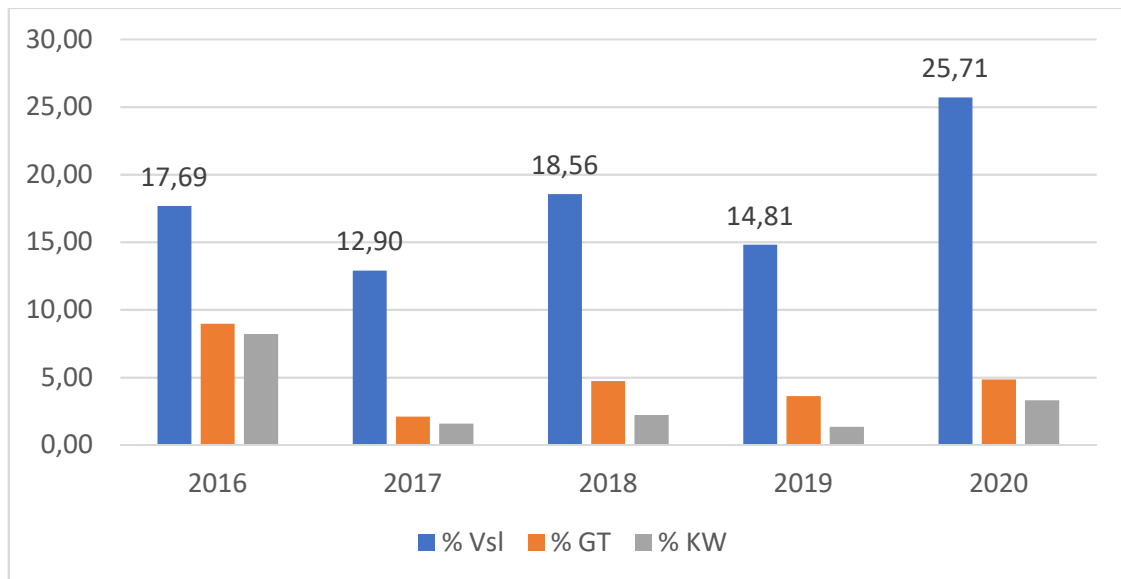
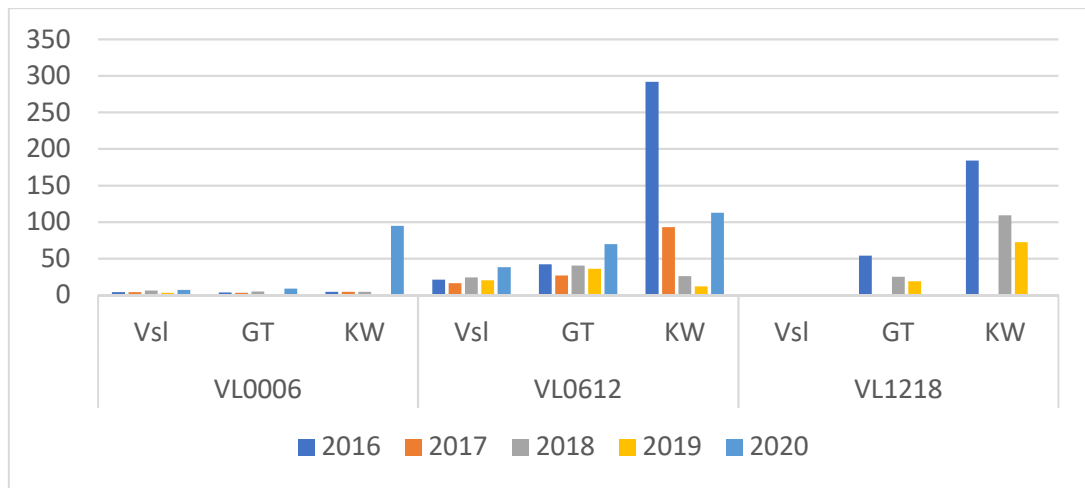


Figure 18. Trend in the number of inactive vessels by fleet segment between 2016 and 2020



The Vessel Utilisation Ratio (VUR) is presented in Tables 13 and 14, which show data on the ratio of the average number of days at sea per vessel to the maximum number of days at sea observed in a fleet segment between 2016 and 2020, calculated as the ratio of current effort to the maximum observed effort. The maximum observed effort is calculated on the basis of the maximum number of days spent by a vessel in that segment. This calculation option is preferred over the use of the theoretical number of days at sea, due to the fact that the number of days at sea is limited by external factors, in particular weather. For this reason, fishing vessels with similar characteristics may spend the same number of days at sea. Another reason for choosing the maximum number of days at sea is the possibility to compare data with previous years.

Marine fisheries in Romania are characterised by an activity that takes place during the first months of the fishing season, which normally lasts from March to November, when the main commercial fish species arrive in the coastal area for spawning and feeding. Fishing for turbot is seasonal, with two peaks in activity in March to April and October to November. Most species migrate depending on hydro-climatic conditions and feed abundance, so fish stocks are strongly influenced by environmental conditions, in particular wind and current direction and intensity, and water temperature. Furthermore, in order to reduce the impact on the main species of economic interest, closed seasons are ordered annually in the months of April, May and June. These are the reasons why, according to the data in the records, there were a maximum of 129 observed days at sea for 2020.

Table 13. Ratio of the number of days at sea to the maximum number of days at sea between 2016 and 2020

Fleet segment	Capacity			Current effort			Maximum observed effort			Capacity used		
	No of vessels	GT	kW	days at sea	GT days	kW days	days	GT days	kW days	days	GT days	kW days
VL2440 PMP	3	359	1 332.25	270	96 930	359 708	405	145 395	539 561	0.67	0.67	0.67
VL1824 PMP	1	70	272.06	70	4 900	19 044	135	9 450	36 728	0.52	0.52	0.52
VL1218 PMP	13	388.13	2 309.3	855	331 851	1 974 452	1 755	681 168	4 052 822	0.49	0.49	0.49
VL0612 PG	63	99.81	836.08	1 328	132 548	1 110 314	8 505	848 884	7 110 860	0.16	0.16	0.16
VL0612 PMP	31	85.97	426.35	1 294	111 245	551 697	4 185	359 784	1 784 275	0.31	0.31	0.31
VL0006 PG	10	6.76	189.78	276	1 866	52 379	1 350	9 126	256 203	0.2	0.2	0.2
Total 2016	121	1 009.67	5 365.82	4 093	679 340	4 067 594	16 335	2 053 807	13 780 449	0.39	0.39	0.39
VL2440 PMP	4	476	1 217.25	411	195 636	500 289.75	600	285 600	730 350	0.69	0.69	0.69
VL1824 PMP	1	70	272.06	102	7 140	27 750.12	150	10 500	40 809	0.68	0.68	0.68
VL1218 PMP	19	616.41	3 300.41	1 029	634 285.89	3 396 121.89	2 850	1 756 768.5	9 406 168.5	0.36	0.36	0.36

VL0612 PG	65	101.64	583.66	1 35 2	137 417.28	789 108.32	9 750	990 990	5 690 685	0.14	0.14	0.14
VL0612 PMP	34	104.13	540.54	1 76 1	183 372.93	951 890.94	5 100	531 063	2 756 754	0.34	0.34	0.34
VL0006 PG	12	9.21	189.78	204	1 878.84	38 715.12	1 800	16 578	341 604	0.11	0.11	0.11
Total 2017	135	1 377.39	6 103.7	4 85 9	1 159 730.9 4	5 703 876.1	20 25 0	3 591 499.5	18 966 371	0.39	0.39	0.39
VL2440 PMP	4	476	1 217.2 5	313	148 988	380 999.25	600	285 600	730 350	0.52	0.52	0.52
VL1824 PMP	1	70	184	87	6 090	16 008	150	10 500	27 600	0.58	0.58	0.58
VL1218 PMP	18	576.3	2 895.5 7	1 22 4	705 391.2	3 544 177.6 8	2 700	1 556 010	7 818 039	0.45	0.45	0.45
VL0612 PG	63	105.01	627.8	1 64 1	172 321.41	1 030 219.8	9 450	992 344.5	5 932 710	0.17	0.17	0.17
VL0612 PMP	38	166.11	1 091.4 1	1 89 9	315 442.89	2 072 587.5 9	5 700	946 827	6 221 037	0.33	0.33	0.33
VL0006 PG	12	9.43	93.5	486	4 582.98	45 441	1 800	16 974	168 300	0.27	0.27	0.27
Total 2018	136	1 402.85	6 109.5 3	5 65 0	7 926 102	34 518 845	20 40 0	28 618 140	124 634 41 2	0.39	0.39	0.39
VL2440 PMP	4	476	1 217.2 5	311	148 036	378 564.75	552	262 752	671 922	0.56	0.56	0.56
VL1824 PMP	1	70	184	75	5 250	13 800	138	9 660	25 392	0.54	0.54	0.54
VL1218 PMP	21	688.34	3 219.1 3	1 45 2	999 469.68	4 674 176.7 6	2 898	1 994 809.3 2	9 329 038.7 4	0.50	0.50	0.50
VL0612 PG	64	104.68	640.18	1 86 9	195 646.92	1 196 496.4 2	8 832	924 533.76	5 654 069.7 6	0.21	0.21	0.21
VL0612 PMP	34	152.97	792.86	1 33 2	203 756.04	1 056 089.5 2	4 692	717 735.24	3 720 099.1 2	0.28	0.28	0.28
VL0006 PG	14	11.41	97.91	580	6 617.8	56 787.8	1 932	22 044.12	189 162.12	0.30	0.30	0.30
Total 2019	138	1 503.4	6 151.3 3	5 61 9	1 558 776.4 4	7 375 915.3	19 04 4	3 931 534.4 4	19 589 684	0.40	0.40	0.40
VL2440 PMP	4	476	1 217.2 5	266	126 616	323 788.5	516	245 616	628 101	0.52	0.52	0.52
VL1824 PMP	1	70	184	69	4 830	12 696	129	9 030	23 736	0.53	0.53	0.53
VL1218 PMP	21	695.31	3 051.1 3	1 18 9	826 723.59	3 627 793.5 7	2 709	1 883 594.7 9	8 265 511.1 7	0.44	0.44	0.44
VL0612 PG	68	131.55	668.92	1 67 5	220 346.25	1 120 441	8 772	1 153 956.6	5 867 766.2 4	0.19	0.19	0.19
VL0612 PMP	25	161.17	868.74	820	132 159.4	712 366.8	3 225	519 773.25	2 801 686.5	0.25	0.25	0.25
VL0006 PG	11	7.32	80.53	344	2 518.08	27 702.32	1 419	10 387.08	114 272.07	0.24	0.24	0.24
Total 2020	130	1 541.35	6 070.5 7	4 36 3	1 313 193.3 2	5 824 788.2	16 77 0	3 822 357.7 2	17 701 073	0.36	0.36	0.36

Table 14. Vessel Utilisation Ratio (VUR) by fleet segment between 2016 and 2020

Fleet segment	2016	2017	2018	2019	2020	Average for the period 2016-2019	Trend of 2020 at the average of the period 2016-2019	
VL2440 PMP	0.67	0.69	0.52	0.56	0.52	0.63	decrease	-17%
VL1824 PMP	0.52	0.68	0.58	0.54	0.53	0.59	decrease	-11%
VL1218 PMP	0.49	0.36	0.45	0.50	0.44	0.43	increase	1.54%
VL0612 PMP	0.31	0.34	0.33	0.28	0.25	0.33	decrease	-23%
VL0612 PG	0.16	0.14	0.17	0.21	0.19	0.16	increase	21%
VL0006 PG	0.20	0.11	0.27	0.30	0.24	0.19	increase	24%

Out of the total number of vessels, i.e. 175, registered in 2020, 130 were active, and the Vessel Utilisation Ratio (VUR) shows a decrease compared to 2019 for all fleet segments. Compared to the average for the period 2016-2019, the trend is increasing in 3 fleet segments, i.e. VL1218PMP, VL0612PG and VL0006PG, and decreasing in 3 other segments. Between 2016 and 2020, the highest values were recorded in three fleet segments, VL2440PMP, VL1824PMP and VL0612PMP in 2017 and VL1218PMP, VL0612PG, VL0006PG in 2019.

All the values obtained were below 0.7, which shows a technical inefficiency that can be regarded as showing underutilisation of vessels and indicating technical overcapacity due to fishing activities under unstable hydro-climatic conditions specific to the Black Sea. This has a negative impact on the calculated VUR levels, which resulted in the number of days at sea falling from a number of 5 619 achieved in 2019 to 4 363 days in 2020, namely a 22.35% decrease.

F.2. Biological indicators

F.2.1. Ratio of estimated F to target F (F/Ft)

The data used were collected under the National Fisheries Data Collection Framework (DCF) and sent to STECF, GFCM, DG MARE to assess the state of stocks and carry out analyses in the Black Sea.

The fishing mortality indicators (F and Fmsy) used for analysis are specified for the Black Sea because the fish species of a commercial value are shared within the exclusive economic zone (EEZ) of the Black Sea riparian countries (namely sprat, turbot, anchovy, horse mackerel, dogfish, red mullet, whiting, etc.).

Two indicators are used to assess whether vessels are relying on overfished stocks (SHI), or involved in causing a high biological risk to a depleted stock (SAR).

The indicators are calculated for the entire Black Sea area according to GFCM/FAO division's definition – namely for the area FAO 37.4.2 and GSA 29. Romania proposed, and various working groups of GFCM and the Commission (e.g. RCMMed&BS 2012, WGBS 2017) approved the significant recommendations to address issues for a single stock exploited by several fleets from the riparian countries, corresponding to each Member State.

These indicators are not suitable for assessing the unbalanced or balanced ratio between fishing capacity and fishing opportunities for EU countries in the area, i.e. Romania and Bulgaria. Therefore, the conclusions that the fishing fleets of those countries influence the overall state of the stocks in the area are not correct.

It should be emphasized that the catches of the Romanian fishing fleet cannot have an impact on the status of the fish stocks exploited, since Romania exploits a very small fraction of these stocks compared to the other riparian countries in the same subregion and/or whole region of the Black Sea whose fishing vessels target the same stocks. In this respect, it is important to note that Romanian catches have always been low and in recent years they have been below 0.5% of their exploitation rate in the GFCM area, while the overwhelming share of the stocks is caught by other riparian countries with which Romania shares these stocks in GSA 29.

Table 15. Catch share of the Romanian fleet for Black Sea species in 2020

		PMP <6 m	PG 6–12 m	PMP 6–12 m	PMP 12–18 m	PMP 18–24 m	PMP 24–40 m	TOTAL	F/Fmsy
Sprat	Ci-catch in fleet segment (t)	0.010	4.9115	0.053	0	0	0	4.9745	0.40/0.64
	Value of Ci (€)	7	3 438	37	0	0	0	3 482	
	Ti- total catch of the stock for all segments/countries (t)	28 427	28 427	28 427	28 427	28 427	28 427	28 427	
	% Ci of Ti	0.000035	0.017	0.00018	0	0	0	0.017	

Horse mackerel	Ci-catch in fleet segment (t)	0.007	21.8862	1.398	3.267	0.300	0	26.8582	1.45/0.78
	Value of Ci (€)	14	42 459	2 712	6 338	582	0	52 105	
	Ti- total catch of the stock for all segments/countries (t)	8 370	8 370	8 370	8 370	8 370	8 370	8 370	
	% Ci of Ti	0.000083	0.261	0.0167	0.039	0.00358	0	0.320	
Anchovy	Ci-catch in fleet segment (t)	2.3231	63.2018	3.056	3.302	0	0	71.8829	1.00/0.49
	Value of Ci (€)	2 393	65 098	3 148	3 401	0	0	74 040	
	Ti- total catch of the stock for all segments/countries (t)	216 975.5	216 975.5	216 975.5	216 975.5	216 975.5	216 975.5	216 975.5	
	% Ci of Ti	0.001	0.0291	0.0014	0.0015	0	0	0.033	
Brill	Ci-catch in fleet segment (t)	0	28.401	11.066	26.7838	2.105	1.528	69.8838	1.39/0.26
	Value of Ci (€)	0	224 368	87 421	211 592	16 630	12 071	552 082	
	Ti- total catch of the stock for all segments/countries (t)	1 812.43	1 812.43	1 812.43	1 812.43	1 812.43	1 812.43	1 812.43	
	% Ci of Ti	0	1.567	0.61	1.478	0.116	0.084	3.855	
Dogfish	Ci-catch in fleet segment (t)	0	0.375	0.030	0.475	0	0	0.880	0.21/0.08
	Value of Ci (€)	0	825	66	1 045	0	0	1 936	
	Ti- total catch of the stock for all segments/countries (t)	71	71	71	71	71	71	71	
	% Ci of Ti	0	0.528	0.042	0.669	0	0	1.239	
Red mullet	Ci-catch in fleet segment (t)	0	0.4344	0.892	10.598	0.070	0	11.9944	1.08/0.64
	Value of Ci (€)	0	843	1 730	20 560	136	0	23 269	
	Ti- total catch of the stock for all segments/countries (t)	2 659	2 659	2 659	2 659	2 659	2 659	2 659	
	% Ci of Ti	0	0.0163	0.0335	0.3985	0.0026	0	0.451	
Whiting	Ci-catch in fleet segment (t)	0	0.397	0	0.108	0	0	0.505	1.09/0.79
	Value of Ci (€)	0	230	0	63	0	0	293	
	Ti- total catch of the stock for all segments/countries (t)	8 701	8 701	8 701	8 701	8 701	8 701	8 701	
	% Ci of Ti	0	0.0046	0	0.0012	0	0	0.0058	

1) **SHI – sustainable harvest indicator**

This indicator is designed to be a measure of how much a fleet segment relies on stocks that are overfished and is assessed with reference to F_{msy} values over time, and reliance is calculated in economic terms. Values of the indicator above 1 indicate that a fleet segment is, on average, relying for its income on fishing opportunities, which means that these segments have raised income, relying on fishing opportunities structurally set above levels corresponding to exploitation at levels corresponding to maximum sustainable yield (MSY). The fishing opportunities do not necessarily match the maximum sustainable yield (MSY) objective at all times, but SHI has been designed with this overall objective in mind.

The SHI values are shown in Table 16. For 2020, an increase in the indicator value is noted for all fleet segments: <6 m, PG 6-12 m, PMP 6-12 m, PMP 12-18 m, PMP 18-24 m and PMP 24-40 m, which can be a sign of imbalance if it has occurred for 3 consecutive years.

2) SAR – stocks-at-risk indicator

The stocks-at-risk indicator is a measure of how many stocks are being affected by the activities of the fleet segment, stocks which are at low levels and at risk of not being able to replenish themselves.

If a fleet segment takes more than 10% of its catches taken from a stock which is at risk, this could be treated as an indication of imbalance. If a fleet segment has an impact on one or more stocks at high biological risk, this is an indicator of a potential capacity imbalance. Compared to the catches made in the Black Sea, Romanian catches in 2020 are below 10% of the biomass of the research studies of target species, most of them below 0.5%, so the SAR indicator was not calculated by Romania.

Table 16. Biological indicators from 2014 to 2020

Fleet segments	Biological indicators	2014	2015	2016	2017	2018	2019	2020
<6 m	SHI	3.54817	7.258358	0.71504	0.70321	0.68532	0.67859	1.508263
	SAR	0	0	0	0	0	0	0
PG 6-12 m	SHI	4.110951	2.526987	1.82199	1.80256	1.75217	1.73103	2.223312
	SAR	0	0	0	0	0	0	0
PMP 6-12 m	SHI	4.828312	3.241051	0.97554	0.95686	0.93274	0.92976	2.363907
	SAR	0	0	0	0	0	0	0
PMP 12-18 m	SHI	4.784007	4.833876	0.81026	0.81025	0.80526	0.80330	2.579474
	SAR	0	0	0	0	0	0	0
PMP 18-24 m	SHI	0	0	0.64087	0.64121	0.62322	0.62157	2.964209
	SAR	0	0	0	0	0	0	0
PMP 24-40 m	SHI	2.766669	2.388445	1.01521	0.99845	0.97653	0.97559	5.346153
	SAR	0	0	0	0	0	0	0

Tables 15 and 16 show the results of the estimated values for the sustainable harvest indicator (SHI) for the Romanian fleet in 2020, and the total catches of fish species reported for the Black Sea are listed in the table based on the countries' reporting during the WGBS-GFCM meetings in 2020. Taking into account that fish species such as sprat and turbot are under quota, the share harvested in the Black Sea area in Romania for other species is very small, i.e. below 0.5%; the fleet exploits mainly veined rapa whelk. This trend in total fish catches has been recorded every year and is decreasing.

F.3. Economic indicators

The economic indicators are calculated using the latest version of Commission Guidelines COM(2014) 545 final of 2.9.2014. The data used to calculate the economic indicators come from the economic statistics questionnaires collected under the National Data Collection Framework (DCF). (source: INCDM).

Two indicators are used to evaluate whether fleet segments are economically sustainable in the long term, allowing capital investments (ROI) and to be able to cover their costs in the short term (CR/BER). The economic indicators may show the extent of economic over or under capitalisation in a fleet, both in the short and in the long term.

Both indicators involve, for comparison purposes, the use of the long-term interest rate calculated by the European Central Bank (ECB). For the purposes of the 2020 assessment of balance, the arithmetic average interest rate for the previous 5 years, corresponding to the period 2015-2019, was used.

The long-term interest rate was 3.89 in 2020, 4.54 in 2019, 4.69 in 2018, 3.96 in 2017, 3.32 in 2016 and 3.47 in 2015, **and the average for the period 2015-2019 was 3.9**, i.e. 4.6% lower than in 2019.

The calculation methods proposed for ROI and CR/BER are as follows:

- 1) **ROI = Net profit / Capital asset value**, where:

Net profit = (Income from landings + other income) – (crew costs + unpaid labour + energy costs + repair and maintenance costs + other variable costs + non variable costs + depreciation), and where:
Capital asset value = Vessel replacement value + estimated value of fishing rights

2. **Ratio between Current revenue and Break-even revenue (CR/BER)**

The formula for calculating the BER is as follows:

$$\text{BER} = (\text{Fixed Costs}) / (1 - [\text{Variable costs} / \text{Current Revenue}])$$

Fixed costs = Non variable costs + depreciation

Variable costs = Crew costs + Unpaid labour costs + Energy costs + Repair and maintenance costs + Other variable costs

Current income = income from landings + other income from other activities

The CR/BER ratio is calculated by dividing the current revenue (CR) by the BER

Table 17. Economic data and calculation of economic indicators in 2020

Indicators	VL2440PMP	VL1824PMP	VL1218PMP	VL0612PG	VL0612PMP	VL0006PG
Source of income	319 707	75 678	1 160 111	396 143	762 888	57 250
Other income	1 007	0	686	104 086	5 182	0
Current revenue	320 714	75 678	1 160 797	500 229	768 070	57 250
Crew costs	76 502	6 226	280 383	154 937	182 645	29 341
Unpaid labour	708	0	0	16 539	0	0

Energy costs	50 179	14 185	238 935	67 391	115 858	1 474
Repair and maintenance costs	10 478	341	91 564	46 098	94 124	3 139
Other variable costs	34 975	102	21 275	30 191	17 253	6 106
Non-variable costs	51 041	362	64 684	34 297	99 922	8 944
Depreciation	43 427	13 636	155 604	8 518	40 510	1 672
Total cost	267 310	34 852	852 445	357 971	550 312	50 676
Net profit	53 404	40 826	308 352	142 258	217 758	6 574
Vessel replacement value	3 130 000	360 000	4 560 000	617 050	795 867	49 520
Estimated value of fishing rights	5 755	1 211	24 362	11 092	13 732	429
Capital asset value	3 135 755	361 211	4 584 362	628 142	809 599	49 949
ROI	1.70%	11.30%	6.73%	22.65%	26.90%	13.16%
ROI – long-term risk-free interest rate	-2.19%	7.41%	2.84%	18.76%	23.01%	9.27%
BER	204 888	19 323	483 712	115 724	301 130	35 356
CR/BER	1.57	3.92	2.40	4.32	2.55	1.62

ECB – the interest rate in 2020 was 3.89.

Source data on long-term interest rate – <http://sdw.ecb.europa.eu/>

F.3.1. Return on Investment (ROI)

The ROI compares the long-term profitability of the fleet segment to other available investments and is the return on investment divided by the cost of investment, measures the profits in relation to the capital invested (in percentages), and indicates how profitable a sector is; the higher the return the more efficient the sector.

The return on investment values in 2020 were positive and greater than the low risk long term interest rate, suggesting that extraordinary profits were generated.

The lowest value of the indicator was recorded in the VL2440PMP segment (1.70%), which was lower than the long term risk free interest rate (3.9). This may indicate that the fleet is overcapitalised and economically inefficient in the long term. Only four vessels were active in this segment, with a number of 266 days at sea, and only 16% of catches in the total landings were landed (veined rapa whelk and turbot), representing 12% as value in EUR.

For the remaining segments, ROI values exceed the risk free long term interest rate of 3.9 and indicate that five fleet segments are in balance. The return on investment values where profits were generated show that the most profitable segments were: VL0612PMP (26.90%), VL0612PG (22.65%), VL0006PG (13.16%), VL1824PMP (11.30%) and VL1218PMP (6.73%).

Compared to 2019, in 2020, ROI had low values in five fleet segments and high values in one segment, VL0612PG. The trend of 2020 compared to the average of the period 2016-2019 shows an increase (129%) only in the above-mentioned segment, which also recorded the highest profit, and the increase is due to the fact that this segment is the largest, consisting of 68 vessels and counting a total of 1 675 days at sea.

In 2020, fishing activities were mainly focused on veined rapa whelk fishing, with 92.22% of the total landings, followed by mussels with 2.62% and by turbot with 1.57%. Since 2016, total landings and their value in EUR have decreased sharply, leading to low profitability of the fleet segments and to decreasing profits in these segments. Table 18.

Table 18. Return on investment (ROI) between 2016 and 2020

Fleet segment	2016	2017	2018	2019	2020	Average	Trend of 2020 compared to the average 2016-2019	
						2016-2019		
VL2440 PMP	9.00	8.55	4.23	7.52	1.70	7.33	decrease	-78%
VL1824 PMP	34.80	25.90	19.66	18.61	11.30	24.74	decrease	-54%
VL1218 PMP	34.04	27.40	19.72	19.13	6.73	25.07	decrease	-73%
VL0612 PMP	83.10	109.14	69.10	95.10	26.90	89.11	decrease	-70%
VL0612 PG	11.02	13.53	3.78	11.31	22.65	9.91	increase	129%
VL0006 PG	5.33	9.10	40.21	39.40	13.16	23.51	decrease	-44%

F.3.2. Ratio between current revenue and break-even revenue (CR/BER).

This indicator measures the economic capability of the fleet segment to keep fishing on a day-by-day basis, whether income covers the pay for the crew, and the fuel and running costs for the vessel, and shows short-term financial viability.

In 2020, the fleet segments recorded a good level for CR/BER, and the value of the indicator in all segments was higher than 1. In these segments, sufficient revenue was generated to cover variable, fixed and capital costs, and in the short term all segments are profitable and able to cover their costs. If the value had been below 1, this would have been an indication of economic inefficiency.

The values of the CR/BER indicator were positive and higher than the low risk long term interest rate (3.9) for the VL0612PG (4.32) and VL1824PMP (3.92) segments, which were profitable and shipowners had sufficient income to cover their costs. The CR/BER values in 2020 are significantly lower compared to 2019 and to the average of 2016-2019, which indicates that the decrease in the catches of veined rapa whelk, in the catches in general and in their value in euros rendered four segments unprofitable in the short term.

Table 19. Ratio of current revenue to break-even revenue (CR/BER)

Fleet segment	2016	2017	2018	2019	2020	Average	Trend of 2020 compared to the average 2016-2019	
						2016-2019		
VL2440 PMP	4.82	5.06	2.59	3.95	1.57	4.11	decrease	-62%
VL1824 PMP	10.44	11.65	9.73	9.14	3.93	10.24	decrease	-62%
VL1218 PMP	12.27	5.95	3.77	4.89	2.40	6.72	decrease	-64%
VL0612 PMP	6.40	7.16	4.21	8.25	2.55	6.51	decrease	-61%
VL0612 PG	2.00	2.69	7.16	2.78	4.32	3.66	increase	18%
VL0006 PG	1.71	2.71	8.92	4.23	1.62	4.39	decrease	-63%

Action plan for Romanian fleet segments

This plan is prepared in accordance with Article 22(4) of Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy and sets out the actions that the Romanian administration intends to take in order to implement measures to adjust the fishing capacity to the fishing opportunities with a view to achieving a stable and enduring balance between them. The implementation period of the action plan extends to 2027 and it is consistent with the implementation period of the European Maritime, Fisheries and Aquaculture Fund (EMFAF) 2021-2027.

The analysis is based on the general assessment and comparison of technical and economic indicators for 2016, 2017, 2018, 2019 and 2020 and on the annual reports on Romania's efforts to achieve an enduring balance between fishing capacity and fishing opportunities.

In 2020, the total number of vessels was 175, i.e. 8% more than in 2019, the largest segment was VL0612 m with PG and PMP fishing techniques, totalling 131 vessels, compared to 2019 when there were 118 vessels. The number of vessels varies insignificantly, the VL0006PG segment increasing by one vessel and the VL1218PMP segment decreasing by one vessel, while the VL1824PMP and VL2440PMP segments remain unchanged. In 2020, the number of active vessels fell from 138 in 2019 to 130, while inactive vessels recorded the highest percentage of non-usability in the entire fleet (25.71%) between 2016 and 2020. (Table 13, Figure 17).

VL0006 PG segment – in 2020, there were 11 active vessels, with 3 vessels fewer than in 2019.

The data of the technical indicator (VUR) show a utilisation capacity of 0.24, which is lower than in 2019 (0.30), and the trend compared to the average for the period 2016-2019 is increasing by 24%. In terms of economic indicators, the return on investment indicator is decreasing from 39.40% in 2019 to 13.16% in 2020; compared to the average for the period 2016-2019, the trend is decreasing by 44%.

The ratio of Current revenue to Break-even revenue (CR/BER) is positive but lower than in 2019, falling from 4.23 to 1.62. The trend compared to the average of the period is decreasing by 63%, which indicates that the segment is slightly profitable, however operators covered their costs, as the value was lower than the long-term interest rate (3.9).

VL0612PG segment – 68 active vessels were registered in this segment in 2020, which is also the largest segment in the Romanian fleet.

The Vessel Utilisation Ratio was 0.24 and the activity at sea totalled 1 675 days.

Of all fleet segments, this segment recorded the lowest vessel utilisation capacity (0.19), which was lower than in 2019 (0.21), and the trend compared to the average for the period 2016-2019 is increasing by 21%.

The return on investment (ROI) has had the highest value from 2016 to date, with the value increasing from 11.31% in 2019 to 22.65% in 2020, which indicates that this segment was profitable. This may also be due to the large number of vessels. The trend compared to the period 2016-2019 shows an increase of 129%.

The ratio of Current revenue to Break-even revenue (CR/BER) had the highest values in the entire fleet, i.e. 4.32, which is higher than the long-term interest rate (3.9), meaning that operators had sufficient revenues to cover costs; the segment is profitable in the long and short term. The trend of 2020 compared to the period 2016-2019 shows an 18% increase.

VL0612 PMP segment – In this segment, 25 vessels carried out fishing activities in a total of 820 days at sea; the value of the technical indicator, i.e. 0.25, and the trend compared to the 2016-2019 average show a 23% decrease, and a technical inefficiency and under-utilisation of the vessels. The return on investment was 26.90%, the highest value in the entire fleet; extraordinary profits are generated in this segment and the segment is profitable in the long term. The ratio of Current revenue to Break-even revenue (CR/BER) is 2.55, which is lower than in 2019, and the trend compared to the 2016-2019 average saw a 61% decrease, with the CR/BER value (2.55) being higher than 1; sufficient revenue was generated to cover costs.

VL1218 PMP segment – In 2020, there were 21 active vessels in this segment with an activity of 1 189 days at sea. The technical indicator has a value of 0.44, which is lower than in 2019 (0.50), and the trend compared to the 2016-2019 average indicates an increase (2%), which shows an under-utilisation of the vessels. The values of the economic indicators show a decrease in ROI (6.73%) and CR/BER (2.40), but CR/BER >1 indicates that the operators covered their costs and the segment was profitable in the short term.

VL1824PMP segment – from 2016 to 2020, there was only one vessel in this fleet segment. The Vessel Utilisation Ratio shows a decrease (0.53) compared to 2019, and the trend compared to the 2016-2019 average is decreasing (11%). ROI was 11.30% and CR/BER was 3.92, with the value being higher than the long-term interest rate, which means that operators had sufficient revenue to cover their costs; the segment is cost-effective and profitable.

VL2440 PMP segment – This segment is constant in terms of number of vessels, and there were only four vessels between 2017 and 2019. The Vessel Utilisation Ratio is 0.52, i.e. lower than in 2019, and there is a downward trend (17%).

The return on investment (ROI) had the lowest value both in the whole fleet (1.70%) and in the whole period 2016-2019, with the value being lower than the risk free long term interest rate (3.9).

The CR/BER value decreases from 3.95 in 2019 to 1.57, and the trend compared to the period 2016-2019 shows a 62% decrease.

Based on the data reported, it can be said that the segment is not profitable, but the revenue covers crew, fuel and operating costs.

Measures to adapt the fishing fleet

The action plan must consider continuing the specific measures taken in recent years:

- Issuing fishing licences to catch other living marine resources and reduce pressure on veined rapa whelk and mussel fishing by catching other species of high economic value. Deadline: until mollusc stocks have been recovered

- Stepping up inspections at sea, in particular during closed seasons (turbot, dogfish and gobies) and in protected areas because vessels under 12 m are not equipped with VMS and ERS. Deadline: permanently
- Fishermen are interested in using new and selective gear. Researchers will support fishermen to successfully develop the projects that would be needed to finance the purchase of new gear. Deadline: permanently
- Further organising professional meetings between scientists and fishermen. Deadline: permanently
- Encouraging the establishment of associations (organisations, fishermen's associations) and establishing landing sites with related facilities. Deadline: 31.12.2023
- Annual order of the Minister for Agriculture determining the number of fishing gears, in particular for turbot and associated species. Deadline: annually
- Conducting inspections to check the minimum landing sizes for veined rapa whelk and other species. Deadline: permanently
- Providing expert assistance in vessel upgrading works, through FMAOP projects. Deadline: 2025
- Implementing the new electronic catch reporting system (easier and more efficient). Deadline: 2023
- Supporting the development of marketing initiatives or providing assistance to improve competitiveness. Deadline: permanently
- Identifying new fisheries resources by initiating stock status surveys. Deadline: 2024
- Promoting and developing sustainable fisheries and economically competitive marine aquaculture, while respecting environmental principles.

Technical and administrative measures in the applicable national legislation

As regards inactive fishing vessels, ANPA continues to apply national legislation, in particular Article 7(7) of Order No 807/13.5.2016, pursuant to which there is a possibility that the validity of the commercial fishing licence expires when the fishing vessel has not been active for more than one calendar year after the issue/endorsement of the commercial fishing licence, and vessels with suspended licences on this basis will be officially removed from the fishing vessel register and the vacant capacity remains in favour of the State and will be further distributed among fishing vessels that intend to enter the fishing fleet register. ANPA continues to apply national legislation in this respect in order to achieve a balance between fishing capacity and fishing opportunities. This measure will be implemented annually.

Order No 21 of the Minister for Agriculture and Rural Development has been in force since July 2020 and regulates for the first time the sale of fish from the Black Sea fisheries only to registered buyers. The registration of first-sale buyers with ANPA aims to improve the management of traceability of fisheries products and the monitoring of landings for all fish species at the landing sites nominated by ANPA, which leads to better control over fishing capacity.

Order No 1369/12 September 2018 of the Minister for Agriculture and Rural Development (consolidated in 2021) on technical characteristics, conditions for the use of gear permitted in commercial fishing and methods of commercial fishing in marine and inland waters provides for the use of fishing gear in the Black Sea for each species. The fishing gears and their number are recorded in the fishing licence and authorisation of each fishing vessel in accordance with the annual TAC Order approved. This measure seeks to check closely compliance with the fishing opportunities by each authorised vessel in the overall fleet management by length segment.

Fishing ports, landing sites

In 2020, a procedure was initiated for the conception and procurement of approvals for the project 'Fishing facilities for Midia Port'. Midia Port is multifunctional, serves fisheries and its upgrade has been a constant concern. To this end, an implementation plan has been prepared. Given the risk of extending this implementation period, the project can be completed after 2023 with the support of the Fisheries and Maritime Affairs Operational Programme 2021-2027 (FMAOP). The investments thus made are supplemented by those for the construction or upgrade of landing sites and points of first sale, which are likely to facilitate the landing and preparation for the placing on the market of marine fisheries catches, while preserving the quality of the product.

The support granted in order to upgrade the fishing infrastructure so that it may serve vessels over 12 m long will enable the provision of adequate berthing, landing and refuelling services. There will also be a possibility of taking away the collected marine litter. Proper sanitary and veterinary conditions will be ensured for the treatment, storage and delivery of fisheries products and a bivalve mollusc purification and dispatch centre will be set up.

Support will be provided to equip fishing vessels to enhance economic performance, safety and security on board and reduce environmental impact. The aim is to purchase and upgrade fishing gear and equipment for the storage and conservation of catches, but without increasing vessel fishing capacity. New fishing gears must be more selective than old ones. Old fishing gears, which risk being lost and becoming marine litter, can be replaced, provided that they are destroyed and disposed of in an environmentally safe manner.

There are grounds for accessing EU financial support for fishing vessels between 2021 and 2027, which can help increase the profitability of the fleet and reduce the environmental impact of fishing activities. Equipment of fishing vessels and vessels with more selective fishing gear contributes, on the one hand, to reducing unwanted catches, by-catches, discards and stock depletion. On the other hand, new, more environmentally friendly fishing gear to replace old gear helps reduce the risk of lost or abandoned gear and of plastic pollution of the marine environment.

Measures to support fishing vessel owners and fishermen, which can be implemented with support from the EMFAF:

- Support for fishing vessel owners and fishermen to cope with the economic consequences of the COVID-19 pandemic following the temporary cessation of fishing activities.

In relation to the emergence and overcoming of the consequences of the COVID-19 pandemic in 2020, a procedure was launched by selecting projects under Union Priority 1 'Promoting environmentally sustainable, resource efficient, innovative, competitive and knowledge based fisheries'. The purpose of the measure is to provide compensation for economic losses and to help fishing vessel owners and fishermen who temporarily ceased fishing activities in 2020 as a result of the COVID-19 outbreak, to overcome the negative economic consequences and to keep their jobs in the fisheries sector, in particular by achieving the specific objective 'Improving the competitiveness and viability of fisheries enterprises, including the small-scale coastal fleet, and improving safety or working conditions' as Union Priority 1. Measure 'Temporary cessation of fishing activities'.

- Fishing ports, landing sites, auction halls and shelters – investments improving fishing port and auctions hall infrastructure or landing sites and shelters.

The objectives of these administrative measures are to improve fishing fleet management and to achieve better control over the exploitation of fishing capacity. The implementation of the measure will contribute to the achievement of the specific objective ‘Improving the competitiveness and viability of fisheries enterprises, including the small-scale coastal fleet, and improving safety or working conditions’ under EU Priority 1 ‘Promoting environmentally sustainable, resource efficient, innovative, competitive and knowledge based fisheries’. The construction of new, and the upgrade of, existing port infrastructure / construction of boat docks will increase their energy efficiency, contribute to environmental protection, increase the quality of landed products, and improve the safety and working conditions of fishermen.

- Diversification and new forms of income.

The implementation of the measure should contribute to the promotion of environmentally sustainable, innovative, competitive and knowledge-based fisheries characterised by efficient use of resources.

The general objective of the priority is to contribute to the CFP (common fisheries policy) objectives of achieving MSY (maximum sustainable yield) by reducing unwanted catches. The measure focuses on increasing fishermen’s income through complementary activities and aims at increasing the competitiveness and viability of fisheries enterprises and improving safety or working conditions. The measure includes all types of investments related to: investments on board, angling tourism, fish restaurants, fisheries-related environmental services, fisheries-related educational activities.

The implementation of the activities established in the measure will enable to protect and to restore aquatic biodiversity and aquatic ecosystems, ensuring a balance between fishing capacity and available fishing opportunities for all imbalanced segments.

- Added value, product quality and use of unwanted catches.

The measure focuses on increasing fishermen’s income through complementary activities and encourages investments that add value to fisheries products, in particular by allowing fishermen to carry out processing, marketing and direct sales of their own catches, and innovative investments on board that improve the quality of fisheries products, leading to increased quality of fisheries products and to improvement in the competitiveness and viability of the coastal fleet. The activities established in the measure will increase the added value or quality of the fish caught, which will help to protect and preserve the environment, and promote the efficient use of resources.

- Promoting environmentally sustainable, resource-efficient, innovative, competitive and knowledge-based fisheries. The measure aims:
 - to protect and restore marine biodiversity – collection of lost fishing gear and of other marine litter, which is aimed at reducing ghost fishing and pollution of marine aquatic habitats, contributing to the conservation and protection of aquatic biodiversity and ecosystems;
 - to reduce the impact of fishing on the marine environment, as well as to avoid and reduce, as far as possible, unwanted catches with a view to protecting and restoring marine biodiversity and ecosystems in sustainable fisheries. The measure supports investments in facilities for the collection of abandoned or lost fishing nets and of marine litter.

- Control and enforcement measure – Fostering the implementation of the CFP

The specific objective of this measures is: Supporting monitoring, control and enforcement, strengthening institutional capacity and enhancing the efficiency of public administration, without adding to the administrative burden. It consists of the acquisition, installation and/or development of technologies, including computer hardware and software, vessel detection systems, closed circuit television systems and IT networks, to enable: collection, management, validation, analysis, risk management, presentation (via control websites); exchange of fisheries data; development of methods for sampling such data; interconnection to cross-sectoral data exchange systems.

Making sure that its commitments to the EU with regard to the common fisheries policy are met, Romania will continue to implement the Action Plan in accordance with the guidelines used for this report until 2027, stating the measures taken in line with the plans of recent years. The implementation of this plan is financed by the EMFAF.