REPUBLIC OF SLOVENIA THE MINISTRY OF AGBULTURE FORESTRY AND FOOD

FOOD AND FISHERIES DIRECTORATE

Annual report on efforts to achieve a sustainable balance between fishing capacity and fishing opportunities for the year 2019

SLOVENIA

pursuant to the Article 22. of the Regulation (EU) no 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC

Prepared by the Ministry of Agriculture, Forestry and Food of the Republic of Slovenia

and

Fisheries Research Institute of Slovenia

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CONTENTS

- 1. Section A: Description of the fishing fleet segments in relation to fisheries: developments during the previous year, including fisheries covered by multiannual management or recovery plans
- 2. Section B: The impact on fishing capacity of fishing effort reduction schemes adopted under multiannual management or recovery plans or, if appropriate, under national schemes
- 3. Section C: Information on the compliance with entry/exit scheme
- 4. Section D: Summary report on the weaknesses and strengths of the fleet management system together with a plan for improvements and information on the general level of compliance with fleet policy instruments
- 5. Section E: Information on changes of the administrative procedures relevant to the management of the fleet
- 6. Section F: Action plan under Article 22(4) of Regulation (EO) No 1380/2013 of the European Parliament and of the Council on the Common Fisheries Policy
- 7. Annex: Balance indicators:
 - Technical indicators
 - Biological indicators
 - Economic indicators

1. Section A: Description of the fishing fleet segments in relation to fisheries: developments during the previous year, including fisheries covered by multiannual management or recovery plans

i. Description of fleets

As it can be observed from the table below, the majority of the fleet, 88,3 %, is composed from vessels shorter than 12 meters. Only 15 vessels are LOA 12-17,9 m or 12,4 % of the fleet, and only 1 vessel above 18 m (0,7%). After the implementation of the scrapping measure in the period 2012 - 2013 in the Slovenian fishing fleet there are no vessels longer than 24 m.

At the end of 2019, there were 137 vessels in the fishing fleet, with the total capacity of 672,73 GT and 8.841,678 kW.

Table 1: Fishing fleet in period 2011 – 2019* *For 2019 the state in the fleet is presented as recorded on 31 December 2019

Length overall		2011	2012	2013		2014	1	2015	2016	2017	2018	2019
over	Number of vessels	3	1	1	1		1	1	1	1	1	
18 m	GT kW	343,16 1.399	30,76 199,00	30,76 199,00	30,76 199,0		30,76 199	30,76 199	30,76 199	113,85 0,00*	113 0,00	
12- 17,9 m	Number of vessels GT kW	19 293,84 3.256	15 234,65 2.565,91	13 208,88 2.306,13	13 208,8 2.306		13 208,88 2.306,13	12 197 2.196,13	13 210,79 2.460,66	15 255,31 2.837,26	15 255 2.97	,31 '3,43
up to 11,9m	Number of vessels GT kW	164 367,49 6.202	159 359,30 6.055,15	156 358,37 5.920,17	155 357,2 5.986		155 357,31 6.034,52	158 361,90 6.139,71	158 362,43 6.161,49	118 299,73 5.629,61	121 303 5.86	
TOTAL	Number of vessels	186	175	170	169		169	171	171	134	137	
	GT kW	1.004,49 10.857	624,71 8.820,06	598,01 8.425,3	596,8 8.491		596,95 8.539,65	589,66 8.534,84	603,98 8.821,15	668,89 8.466,87	672 8.84	,73 1,67

* This vessel is currently used as a fish restaurant, it's anchored in the port all the time and has no engine at present.

As it can be observed from the table below (Table 2) there were 72 vessels active in Slovenian fishing fleet in 2019. The majority of the active part of the Slovenian fishing fleet used drift and fixed nets (DFN): 52 vessels (72,2%); demersal trawls (DTS): 9 vessels (12,5%); while 11 vessels

(15,3%) used other types of fishing gears (combined mobile and passive gears (PMP), pots and/or traps (FPO) and gears using hooks (HOK).

Table 2: Types of fishing gears used by the active fleet in 2019 and landings per fleet segment

Fishing gear	Number of active vessels	Share of the active vessels (%)	Landed quantity (tons)	Share of the total landings (%)
DFN -drift and fixed nets	52	72,6	46,3	38,35
DTS - demersal trawls	9	12,33	73,71	61,06
FPO - pots and/or traps	1	1,37	0,19	0,16
HOK- hooks and line gears	9	12,33	0,51	0,42
PMP - active and passive gears	1	1,37	0,02	0,01
TOTAL	72	100	120,73	100

ii. Link with fisheries

List of the top target species landed in 2019 is presented below.

Whiting, musky octopus, common sole and gilthead seabream were the most important target species of Slovenian fishermen in 2019. Only these 4 species had landings above 10 tons in 2019.

Table 3: List of the species with a highest share in landings in 2019 (in tons).

Latin name	Name	FAO code	Landed quantity (tons)
Merlangius merlangus	whiting	WHG	24,42
Eledone moschata	musky octopus	EDT	16,22
Solea solea	common sole	SOL	11,32
Sparus aurata	gilthead seabream	SBG	10,68
Loligo vulgaris	European squid	SQR	6,28
Pagellus erythrinus	common pandora	PAC	5,07
Merluccius merluccius	European hake	HKE	5,02
Sepia officinalis	common cuttlefish	СТС	4,85
Mullus barbatus	red mullet	MUT	3,68
Dicentrarchus labrax	European seabass	BSS	3,20
Mugilidae xxxx	mullets	MUL	2,98
Spicara spp.	Picarels nei	PIC	2,46
Platichthys flesus	flounder	FLE	2,22
Mustelus mustelus	smooth-hound	SMD	2,17
Scomber scombrus	Atlantic mackerel	MAC	1,38

Other	18,78
Total	120,73

Largest fleet segments, with key species fished and total volumes landed:

In the table below all important fishing segments that were active in 2019 are listed, together with the number of active vessels and landings corresponding to each segment.

Segment by fishing gear	Vessels' length	Number of active vessels	Landed quantity (tons)	Share of the total landings (%)
DFN -drift and fixed nets	VL0006	24	13,27	10,99
	VL0612	26	32,57	26,98
	VL1218	2	0,45	0,38
DFN - TOTAL		53	46,3	38,35
DTS - demersal trawls	VL0612	3	19,12	15,84
	VL1218	6	54,59	45,22
DTS -TOTAL		9	73,71	61,06
FPO - pots and/or traps	VL0006	1	0,19	0,16
FPO - TOTAL		1	0,19	0,16
HOK- hooks and line gears	VL0006	1	0	0
	VL0612	6	0,5	0,42
	VL1218	2	0	0
HOK - TOTAL		9	0,51	0,42
PMP- active and passive gears	VL0612	1	0,02	0,01
PMP - TOTAL		1	0,02	0,01
TOTAL		72	120,73	100

Table 4: Landings per fleet segments in 2019

Table 5: List of top fleet segments by their share in total landings in 2019

Fishing gear	Vessels' length	Number vessels	of	active	Landed quantity (tons)	Share of the total landings (%)
DTS - demersal trawls	VL1218			6	54,59	45,22
DFN -drift and fixed nets	VL0612			26	32,57	26,98
DTS - demersal trawls	VL0612			3	19,12	15,84
DFN -drift and fixed nets	VL0006			24	13,27	10,99
TOTAL				59	119,55	99,03

59 vessels were active in 4 segments presented in the table above (80,8% of all active vessels - 79) and they generated 99,3% of the all landings in 2019 – 119,55 tons.

The most important segment in terms of landed quantity in 2019 was the <u>demersal trawls (DTS)</u> <u>LOA 12-18 m segment</u> with 6 vessels. This segment landed 45,22% of the total landings (54,6 tons). The most important target species of this segment were: whiting (18,8 tons), musky octopus (9,9 tons), European squid (4,5 tons), Common cuttlefish (3,3 tons), European hake (1,5 tons) and red mullet (2,8 tons).

The second most important segment of the fishing fleet in terms of the landed quantity was the **drift and fixed nets (DFN) LOA 06-12 m segment** as it generated 27,0% of the total landings (32,6 tons). 26 vessels were in this segment. The most important target species of this segment were: Common sole (8,8 tons), gilthead seabream (7,4 tons), Common pandora (3,8 tons), European hake (1,4 tons), European flounder (1,1 tons).

The third most important segment of the fishing fleet in terms of the landed quantity was the <u>demersal trawls nets (DTS)</u> LOA 06-12 m segment as it generated 15,8% of the total landings (19,1 tons). Only 3 vessels were in this segment. The most important target species of this segment were: musky octopus (6,3 tons), whiting (4,7 tons), European squid (1,7 tons), Smoothhound (1,0 tons) and Picarels nei (0,9 tons).

The fourth most important segment in terms of landed quantity in 2019 was the <u>drift and fixed</u> <u>nets (DFN) LOA 00-06 m segment</u> as it generated 11,0% of the total landings (13,3 tons). 24 vessels were active in this segment. The most important target species of this segment were: gilthead seabream (2,4 tons), common sole (2,1 tons), Mullets nei (2,1 tons), European seabass (1,6 tons) and Big-scale sand smelt (1,0 tons).

iii. Development in fleets

In 2019, 2 vessels (73,05 kW and 3,66 GT) left the fleet (RET). Five new vessels (251,28 kW and 7,50 GT) entered the fleet in 2019.

At the end of 2019, there were 137 vessels in the fishing fleet, with the total capacity of 672,73 GT and 8.841,67 kW.

iv. Multiannual management plan for sardine and anchovy in the Northern Adriatic

Since 2013, Slovenia is a subject of the first multiannual management plan for small pelagic stocks in the Adriatic Sea. This multiannual plan was adopted at the 37th Session of the GFCM in Split (13-17 May 2013) as a "Recommendation GFCM/37/2013/1 on a multiannual management plan for fisheries on small pelagic stocks in the GFCM-GSA 17 (Northern Adriatic Sea) and on transitional conservation measures for fisheries on small pelagic stocks in GSA 18 (Southern Adriatic Sea)" and came into force in October 2013.

Section B: The impact on fishing capacity of fishing effort reduction schemes adopted under multiannual management or recovery plans or, if appropriate, under national schemes

i. The impact of the "Permanent cessation of fishing activities measure"

Pelagic species (sardine and anchovy) which are highly migratory and whose stocks Slovenia shares with Italy and Croatia in the Northern Adriatic, had been for decades the most important target species of the Slovenian fishermen.

However, the landings of these two species and their share in the composition of the whole landings have changed substantially after Slovenia started the implementation of the "Permanent cessation of fishing activities measure" (scrapping measure financed with funds from the European Fisheries Fund - EFF), which started in the second half of 2012 and ended in the first half of 2013.

The situation of the fishing fleet in the national fishing fleet register on 31 December 2010 was taken as a baseline for the definition of the targets of scrapping measure: than there were 185 vessels in the fishing fleet register and national fleet ceiling was 1.057 GT and 10.974 kW. The impact of this measure on the Slovenian fishing fleet was significant as the targets to be achieved with its implementation in the programming period, which were set out in the Fishing effort adjustment plan (FEAP), were greatly exceeded. Implementation of the scrapping measure ended in the first half of 2013, and as a result 8 vessels were permanently withdrawn from the fishing fleet, among them also 2 of the largest vessels in the Slovenian fishing fleet. The impact of the implementation of this measure was radical as the capacity of the fleet decreased for 37,6 % expressed in GT (236 GT) and for 19,2 % expressed in kW (1.637 kW).

Decrease of sardine and anchovy landings in period 2011-2019

As stated above, 8 vessels were permanently withdrawn from the Slovenian fishing fleet, but among them also the only pair of vessels that had been using pelagic pair trawls. Slovenian fishing fleet has always been rather small, while these two vessels had been for years the most important vessels in the Slovenian fishing fleet in terms of their size (each had LOA 29 m, 156 GT and 600 kW) and in terms of their landings as they had been generating in the years before scrapping more than half of the total Slovenian landings – almost entirely composed of sardine and anchovy. After the scrapping, the only segment of the Slovenian fishing fleet targeting sardine and anchovy was the segment using purse seines, with only 4 vessels active on average. However, also this segment rapidly began to disappear: in 2017 there were only 2 vessels active in this segment. While in 2018 and 2019 these vessels were no longer active as the small pelagics that are available in the Slovenian fishing sea can be caught only in sizes that are not attractive for the market.

Such radical reduction of fishing capacity fundamentally changed the situation of the Slovenian fisheries sector, above all in terms of landings and the composition of target species. The results achieved are striking when observing the impact of the withdrawn vessels on the total landings. Landings of anchovy and sardine that had been the most important target species of the Slovenian fishermen for decades, have decreased radically and in 2017 reached the level that

has hardly any significance. In 2019, total landings of those two species were less than 1 % (0,6% or 702 kilograms) of the total landings.

While in **2011** (year before the scrapping measure), landings of sardine and anchovy were still very high and they represented 65,2 % of the total landings with **469,3 tons** landed (sardine 305,9 tons and anchovy 163,4 tons).

However, landings of these two species in **2012** decreased abruptly: they were 87 % less than the year before, with total landings of only **62 tons** (sardine 18,3 tons and anchovy 43,6 tons). Consequently, also the share of these two species in total landings in 2012 changed substantially as they represented only 18,8% of the total landings.

Their landings were even lower in **2013**, only **49,2 tons** of small pelagics (sardine 27,7 tons and anchovy 21,5 tons) and thus representing only 20,7% of the total landings. When 2013 landings figures are compared to those from 2011, comparison is striking as it shows that the 2013 landings of sardine and anchovy were lower for almost 90%.

In **2014**, increase was recorded in the landings of these two species with total of **111,6 tons**: 78,4 tons of sardine and 33,2 tons of anchovy (44% of the total landings), however exploitation of the concerned species by our fleet continued to remain very low when compared with the exploitation of other countries involved in this fishery in the Northern Adriatic.

In **2015**, landings of these two species dropped again substantially with total of **58,5 to**ns: 43,8 tons of sardine and 14,7 tons of anchovy.

In **2016**, landings of these two species were even lower, with total of only **34,6 tons**: 29,0 tons of sardine and 5,6 tons of anchovy. Share of these two species in the total landings in 2016 was 22,7%.

In **2017**, decrease of landings was even more extraordinary. Landings of these two species were only **8,3 tons**: 7,3 tons of sardine and 1,0 tons of anchovy. Share of these two species in the total landings in 2017 was just 6,4%. When these landings are compared with the landings of small pelagics in 2011 decrease of 98,2 % is registered!

In **2018**, situation got even worse as we reached the point where sardine and anchovy can no longer be considered as target species, but only as incidental catches. In PS segment only 1 vessel left had 1 fishing trip and zero recorded catches, while total landings of those two species caught by vessels using other fishing gears were **1,0 tons** (0,84 % of total landings). Landings of anchovy were 1,04 tons (0,83 % of total landings) while landings of sardine were only 14 kg (0,01 % of total landings). When these landings are compared with the landings of small pelagic species in **2011, decrease of 99,8 %** is registered!

In **2019** situation repeated. For the second consecutive year there was no activity in the PS segment, because small pelagics that are available in the Slovenian fishing sea can be caught only in sizes that are not attractive for the market. Only 702 kilograms of sardine and anchovies were caught as a by catch. Landings of anchovy were only 10 kilograms (0,008 % of total landings) while landings of sardine were 692 kilograms (0,57 % of total landings). When these landings are compared with the landings of small pelagic species in **2011**, **decrease of 99,8 %** is registered!

Year	Landings (tons)	% of decrease in landings compared to landings in 2011
2011	469,3	/
2012	62,0	87,0 %
2013	49,2	90,0%
2014	111,6	76,0%
2015	58,5	87,5%
2016	34,6	92,6%
2017	8,3	98,2 %
2018	1,0	99,8 %
2019	0,7	99,8

Table 6: Decrease of sardine and anchovy landings in period 2011-2019

It is necessary to mention that in line with the EU legislation Slovenia is entitled to an annual maximum level of catches of small pelagics. Recent, relatively high Slovenian historical catches were taken into account for fixing its annual maximum level of catches of small pelagics. For 2019 they were laid down in the *»Council Regulation (EU) 2019/124 of 30 January 2019 fixing for 2019 the fishing opportunities for certain fish stocks and groups of fish stocks, applicable in Union waters and, for Union fishing vessels, in certain non-Union waters«. In line with the 1.st paragraph of Article 8 of the Regulation (EU) 2019/124 catches of sardine and anchovy by Slovenian fishermen must not exceed 300 tons in 2019.*

Decrease of total landings in period 2011-2019

In parallel, the implementation of the scrapping measure had strong impact on the overall landings. Already in **2012** total landings **decreased by 54,3** %: from 719,4 tons in 2011 down to 329,1 tons in 2012.

But in 2013 they decreased even more: down to 237,9 tons, which is 66,9 % less than in 2011.

In 2014, total landings were again low: 254,1 tons, 64,6% less than landings in 2011.

But in 2015 total landings dropped further at only 196,2 tons, which is 72,7% less than in 2011.

In **2016** decline of total landings continued, with total of 152,4 tons, which is **78,8 % less than in 2011.**

In 2017, reduction continued with total of 128,3 tons, which is 82,1% less than in 2011.

In **2018**, reduction of landings was even higher with total of 126,3 tons, **which is 82,4% less than in 2011.**

In 2019, total landings were even lower than the year before: 120,7 tons, which is 83,2% less than in 2011.

Much decreased landings figures in the last 8 years represent a huge contribution from the perspective of the Slovenian fishing fleet to the reduction of the exploitation of fish resources. It needs to be stressed that the landings have been decreasing since Slovenia's entry into the EU.

However, it needs to be emphasized that this significant contribution of the Slovenian fishing fleet cannot be expected to have a noticeable impact on the status of the fish stocks exploited by the Slovenian fishing fleet since Slovenia exploits a negligible fraction of these stocks in comparison to other Member States in the North Adriatic whose fishing vessels are targeting the same stocks.

With regard to this, it is important to note that Slovenian **catches of sardine and anchovy stocks have always been low and in the last few years they are less than 0,01%** of their exploitation in the Northern Adriatic, while the overwhelming share of these two species is caught by Italy and Croatia with whom Slovenia shares these highly migratory stocks in GSA 17.

As it may be summarized from the explanation above, mainly due to the implementation of the scrapping measure and also due to other factors (biological, climate,.), sardine and anchovy are no longer the most important target species of Slovenian fishermen, as their overall landings reduced drastically, down to the levels of hardly any significance.

The constant decrease in landings in the past 8 years, both of small pelagics and total ladings is becoming alarming and it is more than evident that the livelihood of the Slovenian fishermen is seriously jeopardized.

Year	Landings (tons)	% of decrease in landings compared to landings in 2011
2011	719,4	/
2012	329,1	54,3 %
2013	237,9	66,9 %
2014	254,1	64,6%
2015	196,2	72,7%
2016	152,4	78,8 %
2017	128,3	82,1%
2018	126,3	82,4%
2019	120,7	83,2%

Table 7: Decrease of total landings in period 2011-2019

ii. The multiannual management plan for small pelagic stocks in the Northern Adriatic

Since October 2013 exploitation of sardine and anchovy is regulated by the first multiannual management plan for small pelagic stocks in the Northern Adriatic. This plan was adopted at the 37th Session of the GFCM in Split as *"Recommendation GFCM/37/2013/1 on a multiannual management plan for fisheries on small pelagic stocks in the GFCM-GSA 17 (Northern Adriatic Sea) and on transitional conservation measures for fisheries on small pelagic stocks in GSA 18 (Southern Adriatic Sea)"*.

Vessels actively fishing for anchovy and sardine stocks are subject of the management measures of this plan. In line with the multiannual plan, vessels actively fishing for small pelagics are not allowed to operate more than 20 days per month and maximum 180 days per year.

In Slovenia, the only segment of fishing fleet being subject of this multiannual management plan is the segment of vessels using purse seines (PS). In first years following the implementation of the scrapping measure in 2012, there were on average 4 vessels active in this segment. In the last couple of years only 2 vessels were active in this segment.

However, in 2018 and 2019, situation reached the point where sardine and anchovy can no longer be considered as target species, but only as incidental catches. PS segment had no activity in these two years, while total landings of those two species caught by vessels using other fishing gears were 702 kilograms (0,6 % of total landings).

In accordance with the adopted multiannual management plan, Slovenia communicates annually to the Secretariat of the GFCM the list of all trawlers, purse seiners and surrounding nets without the purse authorized to fish for small pelagic stocks – these vessels represent national reference fishing capacity for small pelagic stocks. In addition, Slovenia has to prepare and submit to the GFCM, each October, its National programme for control, monitoring and surveillance that is applicable in the year that follows.

Due to the unfavourable state of small pelagic stocks further emergency measures were adopted at the 42th Session of the GFCM in 2018, with the adoption of the "Recommendation GFCM/42/2018/8 on further emergency measures in 2019-2021 for small pelagic stocks in the Adriatic Sea (geographical subareas 17 and 18)".

In line with the above mentioned recommendation, Decision of the Minister for Agriculture, Forestry and Food was issued (dated 22 February 2018), ordering all owners and users of fishing vessel equipped with the fishing gear for catching small pelagic species:

- that their vessels shall not exceed 180 fishing days in 2019, with maximum of 144 fishing days targeting sardine and with maximum of 144 fishing days targeting anchovy;

- to implement spatial-temporal closures for sardine in period 17 - 31 March 2019 (15 days), and the spatial-temporal closures for anchovy in period 1 - 15 April 2019 (15 days), covering whole territorial waters of the Republic of Slovenia;

- that in 2019, level of catches for small pelagics shall not exceed the one exerted in 2014;

- that in 2019, the overall fleet capacity of trawlers and purse seiners actively fishing for small pelagic stocks shall not exceed the fleet capacity for small pelagics of 2014.

iii. Other management measures

Slovenia is implementing also other measures for the management of the marine fisheries. Since 2008, it is no longer possible to obtain new fishing licenses for the trawl nets. The Ministry of Agriculture, Forestry and Food, which is competent for issuing of fishing licenses, started regulating the issuing of licenses for trawls in May 2008, on the basis of the opinion of the Fisheries Research Institute of Slovenia.

Moreover, in line with the adopted Fishing effort adjustment plan (FEAP) that was adopted for the purpose of the implementation of the scrapping measure with the funds from the EFF in the

period 2012-2013, additional management measures were introduced, among them a moratorium on the issuing of new fishing licenses that would contain the following fishing gears: purse seines (PS), midwater pair trawls (PTM), set gillnets (GNS) and trammel nets (GTR) and therefore it was not possible to obtain new fishing licenses to fish with these types of fishing gears in the before mentioned period. It is important to highlight that with these types of fishing gears almost entire landings of the Slovenian fishermen are generated. Slovenia continues to implement this measure even after the termination of the scrapping measure.

Section C: Information on the compliance with entry/exit scheme

In 2019, Slovenia complied with the entry/exit regime and capacity ceilings in terms of GT and kW, which were not exceeded in accordance with the Articles 22. and 23. of the Regulation (EU) no 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC.

On 31 December 2019, 137 fishing vessels were in the Slovenian fishing fleet register, with the total capacity of 672,73 GT and 8.841,67 kW, while the fishing capacity ceilings were 675 GT and 8.867 kW.

Section D: Summary report on the weaknesses and strengths of the fleet management system together with a plan for improvements and information on the general level of compliance with fleet policy instruments

i. Summary of weakness and strengths of fleet management system

Strengths:

Although Slovenian fishermen fish only a small fraction of the shared fisheries resources in the North Adriatic Sea, management of the marine resources has strengthened greatly in the recent years in line with provisions that have been adopted within the Common Fisheries Policy and the General Fisheries Commission for the Mediterranean (GFCM).

An important operative management document for the Slovenian fisheries was the *"Fishing Effort Adjustment Plan"* (FEAP) that was adopted in 2011 primarily for the implementation of the scrapping measure in the period 2012-2013, but it contained also other measures for the management of the fisheries and for the limitation of fishing effort. Introduction of these measures had significantly improved Slovenian fleet management system whose core objective was to establish a better balance between fishing capacity and fishing opportunities and thus secure more sustainable exploitation of available fishing resources.

Significant contribution of the "Permanent cessation of fishing activities" measure (scrapping measure), financed from the EFF (European Fisheries Fund), to the reduction of fishing effort, above all the one targeting pelagic stocks, was described already in this report. Of great importance are also the results of the implementation of the complementary measure called *"Temporary non-issuing of licenses for commercial fishing for certain fishing gears"*, because this measure introduced temporary moratorium on the issuing of new fishing licences that would allow use of the following fishing gears: purse seine (PS), pelagic (midwater) pair trawls (PTM), drift and fixed nets (GNS and GTR) and demersal trawls (OTB). Established time frame for the implementation of this measure was period 2012-2013, but even after the expiry of that period Slovenia continues to implement it and thus keeps contributing to a better management of the fleet and to a more sustainable exploitation of marine resources. It is important to stress that almost whole landings (99,4%) in 2019 were generated with these 4 types of fishing gears whose use is restricted (fishing gear PTM is not included as there are currently no active vessels using this type of fishing gear).

Another important document for the management of the Slovenian marine fisheries is "*The management plan for fisheries in waters within the jurisdiction of the Republic of Slovenia*" (MP – Management Plan) that was prepared in accordance with the »Mediterranean regulation « (Council Regulation (EC) No 1967/2006 of 21 December 2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea, amending Regulation (EC) No 2847/93 and repealing Regulation (EC) No 1626/94).

The MP contains an analysis of the whole commercial marine fishing in Slovenian territorial waters and includes separate management plans for vessels using following types of fishing gear: purse seines (PS), bottom trawls (OTB), set gillnets (GNS) and trammel nets (GTR). In November 2013, management plans for purse seines (PS) and bottom trawls (OTB) were adopted by the EU Commission. Management measures in the MP are harmonised with the management measures

contained in the FEAP which is described above. Updated draft of the MP was submitted to the Commission in January 2020.

A new chapter of the utmost importance for the management of the Slovenian fleet and fish stocks in the Northern Adriatic is the adoption of the first multiannual management plan for small pelagic (sardine anchovy) stocks in the Northern Adriatic (*Recommendation GFCM/37/2013/1 on a multiannual management plan for fisheries on small pelagic* stocks *in the GFCM-GSA 17 (Northern Adriatic Sea) and on transitional conservation measures for fisheries on small* pelagic stocks *in GSA 18 (Southern Adriatic Sea)).* Vessels actively fishing for anchovy and sardine stocks are subject of the management measures of this plan. In line with the multiannual plan, vessels actively fishing for small pelagics are not allowed to operate more than 20 days per month and maximum 180 days per year. However, it is important to note that Slovenia exploits less than 0,01% of these shared stocks.

An important and a favourable circumstance for the management of the Slovenian fisheries sector is also its small size that allows good collaboration of fishermen, consulting services and administration and consequently there is a good awareness of the mandatory acts adopted at the EU level or within the GFCM. Small size of the fisheries sector also allows for the entire population to be included in data collection.

Since almost whole Slovenian fishing fleet can be characterized as a small-scale coastal fisheries as 88,3 % of the fishing fleet is comprised of vessels under 12 meters, these characteristics by themselves allow for a better management of the fleet and permit more sustainable fishing in comparison to industrial fishing.

A very important step for a better and more effective management of the Slovenian fishing fleet was achieved in 2015 with the adoption of the Act Amending the Marine Fisheries Act (Official Gazette of the Republic of Slovenia, No. 76/15), which provided a legal base for the preparation of national rules for the management of entry/exit regime. These rules: "*Rules on the register of fishing vessels and the vessels used in aquaculture*" (Official Gazette of the Republic of Slovenia, No.60/16) entered into force in September 2016. On the basis of these rules, experts of the Ministry of Agriculture, Forestry and Food thoroughly scrutinised the National fleet register in 2018, and as a result 45 vessels were permanently withdrawn from the register as they were not fulfilling all required criteria stipulated in these rules.

Weaknesses:

Given that the size of the Slovenian fishing sector ranks as the smallest in the whole EU in many terms, where its small fleet generates very low landings that have been rapidly declining in the past years and which are resulting in poor revenues, it takes disproportionate amount of resources for the management of the sector. All these translate in high costs for data collection and control.

Furthermore, complexity and enormous volume of the CFP impose excessive costs and administrative burdens for the administration as well for the sector. EU measures request irrationally expensive monitoring systems to be put in place that can cover in some cases only 4 vessels or less (such as ERS). In addition, control and reporting obligations are excessive and burdensome given the size of the sector and the fisheries administration, which means that the whole process is not cost-effective and therefore the principle of proportionality should have been taken into account.

Taking into account the fact that the landings of the Slovenian fishing fleet have been rapidly decreasing, and that Slovenian fleet targets species from shared and migratory stocks in the Northern Adriatic, where the impact of the fishing industries of other countries of the Adriatic have a much greater impact, collaboration is essential for joint collection of data about fishing stocks in the northern Adriatic at the (sub)regional level, which would also contribute to the formulation of coordinated management measures in accordance with proportions of the impact on fishing of the fleets of other countries which exploit the same stocks.

Therefore, it is necessary to strengthen sub-regional collaboration with the purpose of formulating sustainable methods for the management of the fishing fleet in order to ensure sustainable fishing in the Northern Adriatic (with Italy and Croatia). After the reformed CFP enforced concept of regional cooperation, cooperation in this filed is improving, and as a part of this approach Slovenia has been successfully cooperating with Italy and Croatia in the preparation of the discard plans required under the CFP.

It is necessary to establish collaboration with other Member states also for the purpose of exchanging information for the requirements of monitoring and for the needs of ensuring that fishermen are informed, as well as the professional and general public, regarding the regulations of CFP.

ii. Plan for improvements in fleet management system

Under this heading it can be reported that the national rules for the management of entries/exits from the fishing fleet were adopted in the mid-September 2016 in accordance with the Act Amending the Marine Fisheries Act (Official Gazette of the Republic of Slovenia, No. 76/15). These rules: "Rules on the register of fishing vessels and the vessels used in aquaculture" (Official Gazette of the Republic of Slovenia, No. 60/16) entered into the force at the end of September 2016.

iii. Information on general level of compliance with fleet policy instruments

Slovenia was compliant with the applicable fleet policy instruments in 2019.

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

No specific administrative changes with respect to the management of the Slovenian fishing fleet took place in Slovenia in 2019.

7. Balance indicators

From the *"Guidelines for analysis of the balance between fishing capacity and fishing opportunities"* the following indicators are included in this report:

• Technical indicators:

- o The Inactive Fleet Indicator
- The Vessel Utilization Indicator
- Biological indicators:
 - o Sustainable Harvest Indicator
 - Stocks-at-risk Indicator
- Economic indicators:
 - Return on Investment (ROI)
 - Current Revenue Against Break-Even Revenue (CR / BER)

These indicators were calculated for DFN - drift and fixed nets and DTS - demersal trawls segments. Vessels in these segments generated 99,3% of the all landings in 2019 - 119,55 tons.

In addition, 11 vessels were also active in 2019, in the following gear segments: FPO - pots and/or traps, HOK- hooks and line gears and in PMP - active and passive gears. All these vessels together landed 720 kg (approximately 65 kilograms per vessel), which is 0,6% of the total landings in 2019. Considering our reservations regarding the use of the requested indicators, which are described in more detail in the following two chapters, indicators are not calculated for these segments, since they would show totally distorted picture on the balance of these segments due to the extremely low quantities.

7.1 General remarks of Slovenia regarding the limitations of the indicators proposed by the "Guidelines for analysis of the balance between fishing capacity and fishing opportunities" for the Slovenian fisheries sector

Slovenia has serious reservations regarding the application and appropriateness of the indicators proposed by the "Guidelines" and regarding their combine use due to a number of limitations that characterize the Slovenian fishing sector, and probably also other fisheries sectors with similar characteristics, which haven't been addressed and foreseen when preparing these indicators.

These indicators do not take account of the past efforts carried out for the reduction of fishing effort, not even those that have been carried out very recently (and resulted in radical decrease in fishing in Slovenia's case). The size (number of vessels and active fishermen) of the whole fisheries sector and the size of individual fleet segments, which are very small (sometimes only 2 vessels), have not been regarded when deciding on these indicators.

The fact that Slovenian fishery sector is characterized as mixed fishery and that it depends on the stocks that are shared and migratory is also not taken into account (only PS fishery had been considered as target fishery as it mostly fished for small pelagics, but as already notified in this report, this segment was not active in 2018 and 2019). The fact that the total amount of landings is very low and has been declining for decades is also not taken into account.

But above all, these indicators do not consider the fact that Slovenian fishermen exploit these shared and migratory stocks **in very low quantities**, which can be considered almost as **negligible**, while these stocks are exploited to an incomparably larger extent by the neighbouring countries (the difference between Slovenian fisheries and the fisheries of the neighbouring countries can be distinguished by a factor of few 1000).

The impact of short fishing season (which in practice lasts more or less only from April to September / October) is also not considered. Furthermore, Slovenian fishermen are almost exclusively active only in the territorial waters of Slovenia, which are located in the northernmost part of Adriatic Sea, which is a very limited fishing area and as well as the coldest part of the Mediterranean which affects the occurrence of fish stocks and consequently fishing activity.

For all above listed reasons and in addition to all other reasons that limit our fishermen, which are mentioned in other parts of this report, this report finds that the proposed indicators are not suitable for describing Slovenian fisheries sector and above all it is not suitable to take decisions on management measures on their basis or to draw conclusions whether a certain segment is balanced or not.

However, this report finds that the use of the proposed indicators would be appropriate at the level of the region (Northern Adriatic / GSA 17), where the degree and intensity of the fishery sectors of all concerned countries could be taken into account. And then in instances where imbalances of certain segments would be demonstrated, to propose action plans in order to restore the balance between fishing capacities involved and the stocks affected, which would contain measures and targets that would take due account of the level of the exploitation of all the countries involved in the exploitation of these stocks at the level of the region.

With this purpose, Slovenia has already and will continue to participate at the level of the North Adriatic Sea with other two EU member states concerned (Croatia and Italy) in the context of

regionalisation envisaged in Article 18 of the new Regulation (EU) No 1380/2013 on the Common Fisheries Policy.

As concerns of Slovenia regarding the use of the proposed indicators match many of the concerns that were already expressed by the Scientific, Technical and Economic Committee for Fisheries (STECF), in the past years when evaluating national fleet reports, some of these concerns are presented in the next chapter.

7.2 Concerns of the Scientific, Technical and Economic Committee for Fisheries (STECF) regarding the limitations of the indicators proposed by the "Guidelines"

After examining annual reports of the Scientific, Technical and Economic Committee for Fisheries (STECF), namely its "Assessment of balance indicators for key fleet segments and review of national reports on Member States efforts to achieve balance between fleet capacity and fishing opportunities", which STEFC has been producing since the use of the "Guidelines" became obligatory for the preparation of the "Fleet report", we are able to conclude that also STEFC has strong reservation regarding the use of the "Guidelines" and prescribed indicators and it repeatedly states that it is not possible to scientifically conclude on balance or imbalance on the basis of these indicators, and recurrently urges Commission to prepare new "Guidelines".

Below we provide quotes of some of the STEFC's concerns and conclusions related to the use of the indicator proposed by the *"Guidelines"* that are taken from the STEFC's first 2 reports, as subsequent reports mostly reiterate and endorse conclusions of these reports.

"The Expert group notes that the current 2014 Balance Indicator Guidelines prepared by the Commission (COM(2014) 545 Final) contain a number of inconsistencies and misleading statements, and proposes that a new version of the Guidelines should be produced taking account of the following points and with suitable review by appropriate scientific experts. A draft of the proposed new version of the guidelines is presented in Annex IV" (15-02¹, p. 79).

"In addition to the issues with current indicators, EWG 14-21 identified a substantial number of ambiguities and issues with the Balance Indicator Guidelines issued by the Commission in September 2014 (COM(2014) 545 final). EWG 14-21 concludes that it is important that the Commission adopts and disseminates to MS new guidelines based on the draft version proposed by the EWG" (15-02, p. 80).

"In particular EWG 14-21 considers that the assertion that the biological indicators will allow an assessment of the imbalance between each fleet segment and the stocks that they rely on is not necessarily correct. To unequivocally draw a conclusion that a single fleet segment is in or out of balance with its fishing opportunities based solely on the values for the above indicators may be erroneous. It is not possible to definitively draw such a conclusion without taking into consideration additional factors. Instead all the indicator values (biological, economic and technical) should be considered when assessing whether the capacity of a fleet segment might, in the years represented, have been out of balance with its fishing opportunity. The EWG considers that one single indicator value that exceeds the threshold for a particular fleet segment cannot be considered as evidence of over capacity or imbalance between fleet capacity and fishing opportunity.

<u>Furthermore, even when a full set of indicators is available for a fleet segment, it is not</u> <u>valid to draw a conclusion on balance based on the indicator values alone.</u> Instead this is a cue for Member States to further investigate the fleet segment to ascertain whether there is a problem and the fleet is currently, or was recently, out of balance with its fishing opportunity. To reach a conclusion on balance requires the consideration of political

¹ Scientific, Technical and Economic Committee for Fisheries (STECF) – Assessment of balance indicators for key fleet segments and review of national reports on Member States efforts to achieve balance between fleet capacity and fishing opportunities (STECF-15-02). 2015. Publications Office of the European Union, Luxembourg, EUR 27134 EN, JRC 94933, 147 pp.

preferences, cultural values and subjective judgements; it is not a technical or scientific question and cannot be based on a single indicator" (15-02, p. 80-81).

"STECF reiterates previous advice (see SETCF report 15-02) that no single indicator considered in isolation, can determine whether a fleet segment is overcapacity or imbalance with its fishing opportunities. **Furthermore, STECF notes that indicators are not definitive metrics on which balance can be explicitly measured and therefore require a degree of interpretation and judgement when determining whether a fleet is in or out of balance with the available fishing opportunities.** The values and weighting for all available indicators should be considered when assessing whether the capacity of a fleet segment might, in the years represented, have been out of balance with fishing opportunities. In addition, such evaluations should also include consideration of political aims and preferences, the individual characteristics of fleet segments, communities and fisheries and also consider the broader objectives of the CFP such as achieving Fmsy by 2020 at the latest; the potential impacts of the landing obligation and the potential application of Fmsy ranges in Multi Annual Plans.

Given these points, STECF considers that the judgement of whether a fleet is in or out of balance is the responsibility of managers and not one that can be scientifically rationalised. STECF considers that it is not competent to make such a judgement and therefore the comments in this report largely relate to the utility of the indicators specified in the 2014 Guidelines and suggestions for future revisions" (15-05², p. 9)."

"STECF acknowledges that there are no immediate plans by the Commission to revise the current suite of indicators or the Guidelines. Nevertheless, recognising that there may be a need to undertake such a revision at some future date, STECF suggests that it would be appropriate to commence investigating the properties and utility of alternative indicators at the earliest opportunity and well ahead of any decision on which indicators are to be used" (15-05, p. 11).

"The STECF and previous EWGs to assess balance have highlighted numerous problems and concerns regarding the current suite of indicators that are being used in conjunction with the criteria in the 2014 Guidelines to assess the balance between fleet capacity and fishing opportunities (see above). While such concerns primarily relate to the biological indicators SHI and SAR, for some fleet segments, the values for the economic indicators are also questionable. This is particularly problematic for the small-scale fleet segments. Hence any assessment of balance between capacity and fishing opportunities undertaken by Member States based solely on the indicator values may in some cases be erroneous and potentially give rise to the development of inappropriate or unnecessary action plans" (15-05, p. 16-17).

² Scientific, Technical and Economic Committee for Fisheries (STECF) – Assessment of balance indicators for key fleet segments and review of national reports on Member States efforts to achieve balance between fleet capacity and fishing opportunities (STECF-15-15). 2015. Publications Office of the European Union, Luxembourg, EUR 27555 EN, JRC 97991, 160 pp.

7.2 Technical indicator:

			Number	Number of vessels										
MS	Fleet segr	nent	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
SVN	AREA37	INACTIVE VL0006	56	57	55	57	49	49	47	46	51	52	27	31
SVN	AREA37	INACTIVE VL0612	35	38	37	42	41	37	31	31	33	35	24	29
SVN	AREA37	INACTIVE VL1218	1	2	1	2	1	1	1	3	3	4	5	4
SVN	AREA37	INACTIVE VL1824	1	1	1	1	1	1	1	1	1	1	1	1
SVN	No. of ina	ctive vessels	93	98	94	102	92	88	80	81	88	92	57	65
	No. of ve	ssels in the national												
SVN	fleet		181	185	185	186	181	171	171	169	171	171	134	137

				no	inactive	vessels	as % of t	otal vess	els						
MS		Fleet segme	nt	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
SVN	AREA37	INACTIVE	VL0006	30,9%	30,8%	29,7%	30,6%	27,1%	28,7%	27,5%	27,2%	29,8%	30,4%	20,2%	22,46%
SVN	AREA37	INACTIVE	VL0612	19,3%	20,5%	20,0%	22,6%	22,7%	21,6%	18,1%	18,3%	19,3%	20,5%	17,9%	21,01%
SVN	AREA37	INACTIVE	VL1218	0,6%	1,1%	0,5%	1,1%	0,6%	0,6%	0,6%	1,8%	1,8%	2,3%	3,7%	2,90%
SVN	AREA37	INACTIVE	VL1824	0,6%	0,5%	0,5%	0,5%	0,6%	0,6%	0,6%	0,6%	0,6%	0,6%	0,8%	0,72%
SVN	National	fleet		51,4%	53,0%	50,8%	54,8%	50,8%	51,5%	46,8%	47,9%	51,5%	53,8%	42,5%	47,10%

	Inactive kW as % of fleet kW														
MS		Fleet segme	nt	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
SVN	AREA37	INACTIVE	VL0006	5,5%	5,3%	4,8%	4,8%	4,7%	5,3%	4,8%	4,9%	6,3%	4,2%	3,3%	4,44%
SVN	AREA37	INACTIVE	VL0612	21,0%	23,8%	21,5%	25,2%	25,4%	21,0%	17,7%	18,9%	28,1%	26,5%	25,1%	26,61%
SVN	AREA37	INACTIVE	VL1218	5,1%	6,4%	5,0%	6,5%	5,4%	1,3%	1,3%	8,8%	9,7%	12,8%	12,5%	5,80%
SVN	AREA37	INACTIVE	VL1824	1,9%	1,8%	1,8%	1,8%	2,0%	2,4%	2,4%	2,3%	2,3%	2,3%	0,0%	0,00%
SVN	N National fleet			33,5%	37,4%	33,1%	38,4%	37,4%	30,0%	26,2%	34,9%	46,5%	45,7%	40,9%	36,85%

	Inactive GT as % of fleet GT														
MS	MS Fleet segment 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018												2019		
SVN	AREA37	INACTIVE	VL0006	5,2%	5,1%	4,9%	5,2%	5,4%	7,8%	7,3%	7,4%	8,1%	7,7%	3,6%	4,07%
SVN	AREA37	INACTIVE	VL0612	11,4%	13,5%	1 2 ,1%	12,8%	16,0%	19,3%	16,0%	17,8%	19,8%	21,2%	14,7%	16,41%
SVN	AREA37	INACTIVE	VL1218	0,9%	2,3%	0,9%	2,3%	1,1%	2,0%	2,0%	5,1%	5,7%	9,8%	8,1%	8,47%
SVN	AREA37	INACTIVE	VL1824	3,1%	3,1%	3,1%	3,1%	3,7%	5,1%	5,1%	5,2%	5,2%	5,1%	17,0%	16,92
SVN	National	fleet		20,7%	24,0%	21,0%	23,3%	26,2%	34,1%	30,4%	35,4%	38,9%	43,9%	43,3%	45,87

The Act Amending the Marine Fisheries Act (Official Gazette of the Republic of Slovenia, No. 76/15) adopted in 2015 provided a legal base for the preparation of national rules for the management of entry/exit regime. These rules: "Rules on the register of fishing vessels and the

vessels used in aquaculture" (Official Gazette of the Republic of Slovenia, No. 60/16) were adopted in September 2016 and entered into force at the end of September 2016.

These rules allowed to scrutinise National fleet register and all those vessels that were not fulfilling all required criteria stipulated in these rules were deleted from the National fleet register.

Officials of The Ministry for Agriculture, Forestry and Food carried out a thorough scrutiny in 2018 and permanently withdrew 45 vessels from the register. In 2017 there were 171 vessels in the national register, while in 2018 there were 134. Slovenia considers this a huge achievement in its endeavours for a balanced fleet.

The results of the **Inactive fleet indicator** show that on average more than 50% of the vessels of the Slovenian fishing fleet were not active in the past years. However, due to the scrutiny of the register carried out in 2018, this figure much improved as 42,5% of the vessels were inactive.

In 2019, 92,3 % of the inactive vessels were shorter than 12 m and more than half of them were shorter than 6 meters.

The Vessel Utilization Indicator

Fleet segment	Vessel utilization indicator					
	2015	2016	2017	2018	2019	
DFN VL0006	0,26	0,27	0,28	0,23	0,21	
DFN VL0612	0,25	0,31	0,27	0,18	0,17	
DFN VL1218*	0,25	0,31	0,27	0,18	0,62	
DTS VL0612**	0,27	0,4	0,58	0,34	0,65	
DTS VL1218	0,27	0,4	0,58	0,34	0,53	
PS VL1218	0,68	0,93	0,83	NA	NA	

* Due to the provisions on personal data in accordance with the General Data Protection Regulation, for the period 2015-2018, 3 vessels from the DFN VL1218 segment were joined with the vessels in the DFN VL0612 segment for the calculation of the indicator, therefore the two segments share the same indicator value. For 2019 figures are available for segments.

** Due to the provisions on personal data in accordance with the General Data Protection Regulation, for the period 2015-2018, 3 vessels from the DTS VL0612 segment were joined with the vessels in the DTS VL1218 segment for the calculation of the indicator; therefore the two segments share the same indicator value. For 2019 figures are available for segments.

Vessel utilisation indicator is based on observed maximum activity.

Vessels in the purse seins (PS) segment are no longer active, already for two years (in 2018 there was only 1 vessel in the PS segment, with only one fishing trip and zero catches / landings), as there is no occurrence of small pelagic fish in size that would be attractive for the market.

We deem that the proposed indicators of vessels' activity are not really suitable indicators for the fisheries sector as is Slovenian, since they do not take into account its unique characteristics, above all its many constraints. Some of the reasons why we deem that these indicators are of limited use when applied to Slovenian fisheries sector are explained below, while a more detail explanation regarding the limitations of the proposed indicators is given in the section *"7.1 General remarks of Slovenia regarding the limitations of the indicators proposed by the "Guidelines for analysis of the balance between fishing capacity and fishing opportunities"* of this report.

Results of low vessel activity in many segments are predominantly a consequence of the following characteristics of the Slovenian fisheries sector:

Figures below 0,7 can be seen especially in fleet segments with large proportion of small vessels. The majority of fishing vessels of the Slovenian fisheries sector are vessels engaged in small scale coastal fishing (88,3% of all Slovenian fishing vessels - 121 vessels out of 137 are vessels below 12 meters). For most of the Slovenian fishermen, fishing does not represent their main economic activity, it is not the main source of their income, but it is an additional, complimentary activity to other activities (such as tourism etc.), therefore fishing activity of many fishermen is rather low.

Most of the fish caught by Slovenian fishermen are migratory species which means that they occur occasionally or seasonally in the northernmost part of the North Adriatic Sea, which is the fishing area of Slovenian fishermen. As a consequence, the fishermen must adjust their fishing trips to the occurrence of these migratory species. Therefore, there can be many periods during a year when they do not fish at all and many fishers try to engage in other gainful activities. For example, vessels using purse seines used to be active mainly in period April-September and also duration of seasons of other segments is similar.

Therefore, when interpreting the results of "Vessel utilisation indicator", the above mentioned specifics that characterise the Slovenian fishing sector and explanations regarding the limitations of the proposed indicators should be taken into account and thus the obtained results should be interpreted in the light of these observations.

7.3 Biological indicators:

Biological sustainability indicators

Availability of stock assessments on regional level (GSA 17 or GSA 17-18) is available only for the most important Adriatic stocks. The fishing area of Slovenian fishermen is restricted to the territorial sea of the Republic of Slovenia. This is the northernmost part of Adriatic where the species composition is significantly different from the rest of the Adriatic. The average number of stocks caught by Slovenian fishery in period from 2016 to 2019 was 85. From this, stock assessments at regional level was only available for four stocks in 2016 and seven stocks in period from 2017 to 2019 (Table 1).

Table 1 Stock assessments available at regional level (GSA 17 or GSA 17-18) and used to calculate biological indicators.

ublica	tion			
ar	Stock	Area	Method	Reference
	2016 Engraulis encrasicolus	GSA 17-18	SAM	Working Group on Stock Assessment of Small Pelagic Species (WGSASP), GFCM and FAO headquarters, Rome, Italy, 7-12 November 2016
	2016 Mullus barbatus	GSA 17	XSA, SCAA	General Fisheries Commission for the Mediterranean. Report of the eighteenth session of the Scientific Advisory Committee on Fisheries, Nicosia, Cyprus, 21-23 March 2016
1	2016 Sardina pilchardus	GSA 17-18	SAM	Working Group on Stock Assessment of Small Pelagic Species (WGSASP), GFCM and FAO headquarters, Rome, Italy, 7-12 November 2016
1	2016 Solea solea	GSA 17	SS3, Y/R, shortterm forecast	General Fisheries Commission for the Mediterranean. Report of the eighteenth session of the Scientific Advisory Committee on Fisheries, Nicosia, Cyprus, 21-23 March 2016
1	2017 Engraulis encrasicolus	GSA 17-18	SAM	Working Group on Stock Assessment of Small Pelagic species (WGSASP), FAO HQ, Rome, Italy, 13-18 November 2017
1	2017 Merluccius merluccius	GSA 17-18	SS3	General Fisheries Commission for the Mediterranean. Report of the nineteenth session of the Scientific Advisory Committee on Fisheries. Ljubljana, Slovenia, 16-19 May 2017
	2017 Mullus barbatus	GSA 17	SS3	General Fisheries Commission for the Mediterranean. Report of the nineteenth session of the Scientific Advisory Committee on Fisheries. Ljubljana, Slovenia, 16-19 May 2017
1	2017 Sardina pilchardus	GSA 17-18	SAM	Working Group on Stock Assessment of Small Pelagic species (WGSASP), FAO HQ, Rome, Italy, 13-18 November 2017
1	2017 Sepia officinalis	GSA 17	CMSY	Working Group on Stock Assessment of Demersal Species (WGSAD), FAO headquarters, Rome, Italy, 13-18 November 2017
1	2017 Solea solea	GSA 17	SS3	General Fisheries Commission for the Mediterranean. Report of the nineteenth session of the Scientific Advisory Committee on Fisheries. Ljubljana, Slovenia, 16-19 May 2017
1	2017 Squilla mantis	GSA 17	SS3	Working Group on Stock Assessment of Demersal Species (WGSAD), FAO headquarters, Rome, Italy, 13-18 November 2017
1	2018 Engraulis encrasicolus	GSA 17-18	SAM	General Fisheries Commission for the Mediterranean. Report of the twentieth session of the Scientific Advisory Committee on Fisheries, Tangiers, Morocco, 26-29 June 2018
1	2018 Merluccius merluccius	GSA 17-18	SS3	General Fisheries Commission for the Mediterranean. Report of the twentieth session of the Scientific Advisory Committee on Fisheries, Tangiers, Morocco, 26-29 June 2018
1	2018 Mullus barbatus	GSA 17	SS3	General Fisheries Commission for the Mediterranean. Report of the twentieth session of the Scientific Advisory Committee on Fisheries, Tangiers, Morocco, 26-29 June 2018
1	2018 Sardina pilchardus	GSA 17-18	SAM	General Fisheries Commission for the Mediterranean. Report of the twentieth session of the Scientific Advisory Committee on Fisheries, Tangiers, Morocco, 26-29 June 2018
	2018 Sepia officinalis	GSA 17	CMSY	General Fisheries Commission for the Mediterranean. Report of the twentieth session of the Scientific Advisory Committee on Fisheries, Tangiers, Morocco, 26-29 June 2018
1	2018 Solea solea	GSA 17	SS3	General Fisheries Commission for the Mediterranean. Report of the twentieth session of the Scientific Advisory Committee on Fisheries, Tangiers, Morocco, 26-29 June 2018
1	2018 Squilla mantis	GSA 17	SS3	General Fisheries Commission for the Mediterranean. Report of the twentieth session of the Scientific Advisory Committee on Fisheries, Tangiers, Morocco, 26-29 June 2018
1	2019 Engraulis encrasicolus	GSA 17-18	SAM	General Fisheries Commission for the Mediterranean. Report of the twenty-first session of the Scientific Advisory Committee on Fisheries, Cairo, Egypt, 24-27 June 2019
	2019 Merluccius merluccius	GSA 17-18	SS3	General Fisheries Commission for the Mediterranean. Report of the twenty-first session of the Scientific Advisory Committee on Fisheries, Cairo, Egypt, 24-27 June 2019
1	2019 Mullus barbatus	GSA 17-18	a4a	General Fisheries Commission for the Mediterranean. Report of the twenty-first session of the Scientific Advisory Committee on Fisheries, Cairo, Egypt, 24-27 June 2019
1	2019 Penaeus kerathurus	GSA 17	CMSY	General Fisheries Commission for the Mediterranean. Report of the twenty-first session of the Scientific Advisory Committee on Fisheries, Cairo, Egypt, 24-27 June 2019
1	2019 Sardina pilchardus	GSA 17-18	SAM	General Fisheries Commission for the Mediterranean. Report of the twenty-first session of the Scientific Advisory Committee on Fisheries, Cairo, Egypt, 24-27 June 2019
1	2019 Sepia officinalis	GSA 17	CMSY	General Fisheries Commission for the Mediterranean. Report of the twenty-first session of the Scientific Advisory Committee on Fisheries, Cairo, Egypt, 24-27 June 2019
2	2019 Squilla mantis	GSA 17	SS3	General Fisheries Commission for the Mediterranean. Report of the twenty-first session of the Scientific Advisory Committee on Fisheries, Cairo, Egypt, 24-27 June 2019

Landing of Slovenian fisherman is negligible compared to total Adriatic landing. It has been on a declining trend since 1983, from 7916 tons to 196 tons in 2015. Landings have also been declining over the last four years, from 152 tons in 2016 to 121 tons in 2019. Species composition and its quantities of landings indicates that Slovenian fishery is mainly targeting stocks for which there is no stock assessment available (Figure 1).

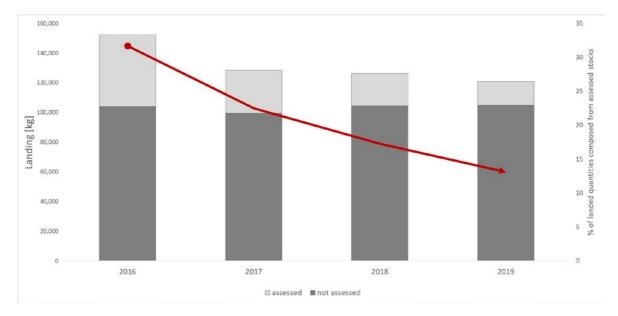


Figure 1 Quantities of landings composed from assessed stocks and not assessed stocks in period 2016-2019. The line shows the percentage of landed quantities composed from assessed stocks.

For the calculation of biological indicators we took in consideration DG Fisheries and Maritime Affairs Guidelines for analysis of the balance between fishing capacity and fishing opportunities from 2014 (hereinafter "Guidelines"). Below, we calculated both indicators, however because of obvious lack of complete stock assessments for a significant number of stocks, the results are not meaningful, especially for calculation of Sustainable Harvest Indicator. In our case there is more than 90% of stocks with unavailable values of F and Fmsy.

Sustainable Harvest Indicator (SHI)

The analysis of data has been performed over period from 2016 till 2019. We took in consideration seven most important fleet segments. From stocks in Table 1, for calculation of SHI we chose those stocks with available F and Fmsy (Table 2). In line with the Guidelines, following formula was used for the calculation of SHI indicator:

$$\frac{\sum_{i=1}^{i=n} Vi \frac{Fi}{Fmsy_i}}{\sum_{i=1}^{i=n} \sum Vi}$$

Where Vi = value of the landings.

Calculation of the indicator depends on the availability of quantified scientific advice for the stocks in question. In cases where more than 60% of the value of the catch is made up of stocks for which values of F and Fmsy are unavailable than this indicator is also deemed to be unavailable. That was the case for most fleet segments in period 2016 to 2018 and all fleet segments in 2019.

Table 2 Stock assessments used to calculate SHI.

Publication year	Stock	Area	Method	F	Fmsy	Fmsy comment
2016	Engraulis encrasicolus	GSA 17-18	SAM	0.99	0.554	
2016	Mullus barbatus	GSA 17	XSA, SCAA	1.3	0.52	F0.1 as proxy for Fmsy
2016	Sardina pilchardus	GSA 17-18	SAM	1.486	0.715	
2016	Solea solea	GSA 17	SS3, Y/R, shortterm forecast	0.62	0.26	F0.1 as proxy for Fmsy
2017	Engraulis encrasicolus	GSA 17-18	SAM	1.43	0.64	
2017	Merluccius merluccius	GSA 17-18	SS3	0.48	0.21	F0.1 as proxy for Fmsy
2017	Mullus barbatus	GSA 17	SS3	0.39	0.3	F0.1 as proxy for Fmsy
2017	Sardina pilchardus	GSA 17-18	SAM	1.3	0.47	
2017	Sepia officinalis	GSA 17	CMSY	0.39	0.48	
2017	Solea solea	GSA 17	SS3	0.35	0.26	F0.1 as proxy for Fmsy
2017	Squilla mantis	GSA 17	SS3	0.99	0.51	F0.1 as proxy for Fmsy
2018	Merluccius merluccius	GSA 17-18	SS3	0.33	0.21	F0.1 as proxy for Fmsy
2018	Mullus barbatus	GSA 17	SS3	0.5	0.21	F0.1 as proxy for Fmsy
2018	Sepia officinalis	GSA 17	CMSY	0.39	0.48	
2018	Solea solea	GSA 17	SS3	0.41	0.26	F0.1 as proxy for Fmsy
2018	Squilla mantis	GSA 17	SS3	0.99	0.51	F0.1 as proxy for Fmsy
2019	Merluccius merluccius	GSA 17-18	SS3	0.56	0.17	F0.1 as proxy for Fmsy
2019	Mullus barbatus	GSA 17-18	a4a	0.48	0.41	F0.1 as proxy for Fmsy
2019	Penaeus kerathurus	GSA 17	CMSY	0.96	0.46	
2019	Sepia officinalis	GSA 17	CMSY	0.4	0.48	
2019	Squilla mantis	GSA 17	SS3	0.66	0.43	F0.1 as proxy for Fmsy

DFN VL0006

In the fleet segment DFN VL0006 the average landing percent of stocks with unavailable F and Fmsy was 88,26%, ranged from 83,03% in 2018 to 96,39% in 2019 (Table 3). In all years the landing percent of stocks with unavailable F and Fmsy was well above the 60% threshold and consequently we could not calculate SHI.

Table 3 Number of stocks and percentage of the landing value with availability of F and Fmsy, for fleet segment DFN VL0006.

	F and Fmsy a	re available	Unavailable		
Year	Number of stocks	Landing [%]	Number of stocks	Landing [%]	
2016	3	11.85	58	88.15	
2017	5	14.53	53	85.47	
2018	5	16.97	54	83.03	
2019	4	3.61	60	96.39	

DFN VL0612

In the fleet segment DFN VL0612 the average landing percent of stocks with unavailable F and Fmsy was 77,60%, ranged from 71,60% in 2017 to 92,37% in 2019 (Table 4). In all years the landing percent of stocks with unavailable F and Fmsy was well above the 60% threshold and consequently we could not calculate SHI.

Table 4 Number of stocks and percentage of the landing value with availability of F and Fmsy, for fleet segment DFN VL0612.

	F and Fmsy a	e available	Unavailable		
Year	Number of stocks	Landing [%]	Number of stocks	Landing [%]	
2016	4	26.93	69	73.07	
2017	7	28.40	69	71.60	
2018	5	26.63	58	73.37	
2019	5	7.63	57	92.37	

DFN VL1218

In the fleet segment DFN VL1218 the average landing percent of stocks with unavailable F and Fmsy was 65,71%, ranged from 17,44% in 2016 to 97,95% in 2019 (Table 5). In last two years the landing percent of stocks with unavailable F and Fmsy was well above the 60% threshold and consequently we could not calculate SHI. We are only able to provide SHI for the first two years: 2,04 in 2016 and 2,73 in 2017.

Table 5 Number of stocks and percentage of the landing value with availability of F and Fmsy, for fleet segment DFN VL1218.

	F and Fmsy a	re available	Unavailable		
Year	Number of stocks Landing [%]		Number of stocks Landing [%] Number of stocks		Landing [%]
2016	3	82.56	34	17.44	
2017	3	49.85	26	50.15	
2018	2	2.71	12	97.29	
2019	2	2.05	10	97.95	

DTS VL0612

In the fleet segment DTS VL0612 the average landing percent of stocks with unavailable F and Fmsy was 90,65%, ranged from 86,80% in 2018 to 96,10% in 2016 (Table 6). In all years the landing percent of stocks with unavailable F and Fmsy was well above the 60% threshold and consequently we could not calculate SHI.

Table 6 Number of stocks and percentage of the landing value with availability of F and Fmsy, for fleet segment DTS VL0612.

	F and Fmsy ar	e available	Unavailable		
Year	Number of stocks	Landing [%]	Number of stocks	Landing [%]	
2016	3	3.90	47	96.10	
2017	7	9.62	43	90.38	
2018	5	13.20	39	86.80	
2019	5	10.67	39	89.33	

DTS VL1218

In the fleet segment DTS VL1218 the average landing percent of stocks with unavailable F and Fmsy was 87,68%, ranged from 81,72% in 2019 to 92,78% in 2016 (Table 7). In all years the landing percent

of stocks with unavailable F and Fmsy was well above the 60% threshold and consequently we could not calculate SHI.

Table 7 Number of stocks and percentage of the landing value with availability of F and Fmsy, for fleet segment DTS VL1218.

-	F and Fmsy are available		Unavailable	
Year	Number of stocks	Landing [%]	Number of stocks	Landing [%]
2016	4	7.22	60	92.78
2017	7	12.50	55	87.50
2018	5	11.30	46	88.70
2019	5	18.28	57	81.72

PS VL0612

In the fleet segment PS VL0612 the values are only available for first two years. After 2017 the fleet segment was not active. The landing percent of stocks with unavailable F and Fmsy was 1,82% in 2016 and 3,38% in 2017 (Table 8). In those years the landing percent of stocks with unavailable F and Fmsy was well below the 60% threshold. Because of inactivity of the segment, we are only able to provide SHI for the first two years: 2,04 in 2016 and 2,64 in 2017.

Table 8 Number of stocks and percentage of the landing value with availability of F and Fmsy, for fleet segment DFN PS VL0612.

	F and Fmsy ar	e available	Unavailable		
Year	Number of stocks	Landing [%]	Number of stocks	Landing [%]	
2016	3	98.18	15	1.82	
2017	3	96.62	6	3.38	
2018					
2019					

PS VL1218

In the fleet segment PS VL1218 the values are only available for first year. After 2016 the fleet segment was not active. The landing percent of stocks with unavailable F and Fmsy was 4,27% in 2016 (Table 9). In this year the landing percent of stocks with unavailable F and Fmsy was well below the 60% threshold. Because of inactivity of the segment, we are only able to provide SHI for 2016, which was 2,03.

Table 9 Number of stocks and percentage of the landing value with availability of F and Fmsy, for fleet segment PS VL1218.

-	F and Fmsy are available		Unavailable		
Year	Number of stocks	Landing [%]	Number of stocks	Landing [%]	
2016	3	95.73	15	4.27	
2017					
2018					
2019					

Stocks-at-risk indicator (SRI)

The analysis of data has been performed over period from 2016 till 2019. We took in consideration seven most important fleet segments. From stocks in Table 1, for calculation of SRI we chose those stocks that are at high biological risk. Since the Blim was not always available, the criteria was scientific advice that recommends "Reduce fishing mortality" (Table 10). We have performed a count of the number of stocks that being at high biological risk that was exploited by the fleet in question. In this context, "exploited by" means that the stock(s) at high risk each make up more than 10% of the catches of the fleet segment. As proposed in the Guidelines the following formula was taken for the calculation of SRI indicator:

$$\sum_{i=1}^{i=n} (1 \text{ if } (Ci > 0.1Ct); otherwise 0)$$

Where Ci= catch, Ct = total catch of all stocks taken by the fleet segment.

Table 10 Stock assessments used to calculate SRI.

Publication year	Stock	Area	Method	Scientific advice
2016	Engraulis encrasicolus	GSA 17-18	SAM	Reduce fishing mortality
2016	Mullus barbatus	GSA 17	XSA, SCAA	Reduce fishing mortality
2016	Sardina pilchardus	GSA 17-18	SAM	Reduce fishing mortality
2016	Solea solea	GSA 17	SS3, Y/R, shortterm forecast	Reduce fishing mortality
2017	Engraulis encrasicolus	GSA 17-18	SAM	Reduce fishing mortality
2017	Merluccius merluccius	GSA 17-18	SS3	Reduce fishing mortality
2017	Mullus barbatus	GSA 17	SS3	Reduce fishing mortality
2017	Sardina pilchardus	GSA 17-18	SAM	Reduce fishing mortality
2017	Sepia officinalis	GSA 17	CMSY	Reduce fishing mortality
2017	Solea solea	GSA 17	SS3	Reduce fishing mortality
2017	Squilla mantis	GSA 17	SS3	Reduce fishing mortality
2018	Engraulis encrasicolus	GSA 17-18	SAM	Reduce fishing mortality
2018	Merluccius merluccius	GSA 17-18	SS3	Reduce fishing mortality
2018	Mullus barbatus	GSA 17	SS3	Reduce fishing mortality
2018	Sardina pilchardus	GSA 17-18	SAM	Reduce fishing mortality
2018	Sepia officinalis	GSA 17	CMSY	Reduce fishing mortality
2018	Solea solea	GSA 17	SS3	Reduce fishing mortality
2018	Squilla mantis	GSA 17	SS3	Reduce fishing mortality
2019	Engraulis encrasicolus	GSA 17-18	SAM	Reduce fishing mortality
2019	Merluccius merluccius	GSA 17-18	SS3	Reduce fishing mortality
2019	Mullus barbatus	GSA 17-18	a4a	Reduce fishing mortality
2019	Penaeus kerathurus	GSA 17	CMSY	Reduce fishing mortality
2019	Sardina pilchardus	GSA 17-18	SAM	Reduce fishing mortality
2019	Squilla mantis	GSA 17	SS3	Reduce fishing mortality

DFN VL0006

The fleet segments DFN VL0006 is mainly relying on stocks for which stocks assessments are not available. In terms of landing those stocks averaged 88.64% between 2016 and 2019 while in 2019 the value was 98.71%. Table 11 represents values of landings, percent of landings and SRI.

Year Stock	Landing [kg]	Landing [%]	SRI relevant	SRI
2016 Mullus barbatus	1	0.0039	0	
2016 Sardina pilchardus	42	0.2721	0	1
2016 Solea solea	1778	11.5777	1	
2017 Mullus barbatus	0	0.0015	0	
2017 Sardina pilchardus	28	0.2079	0	
2017 Sepia officinalis	410	3.0348	0	1
2017 Solea solea	1486	10.9938	1	
2017 Squilla mantis	39	0.2874	0	
2018 Merluccius merluccius	3	0.0223	0	
2018 Mullus barbatus	1	0.0095	0	
2018 Sardina pilchardus	104	0.7857	0	1
2018 Sepia officinalis	450	3.4060	0	T
2018 Solea solea	1747	13.2257	1	
2018 Squilla mantis	41	0.3069	0	
2019 Merluccius merluccius	50	0.3866	0	
2019 Mullus barbatus	1	0.0046	0	0
2019 Sardina pilchardus	87	0.6736	0	U
2019 Squilla mantis	30	0.2276	0	

Table 11 Selected stocks for SRI calculation in fleet segment DFN VL0006.

DFN VL0612

The fleet segments DFN VL0612 is mainly relying on stocks for which stocks assessments are not available. In terms of landing those stocks averaged 78.08% between 2016 and 2019 while in 2019 the value was 94.30%. Table 12 represents values of landings, percent of landings and SRI.

Table 12 Selected stocks for SRI calculation in fleet segment DFN VL0612.

Year Stock	Landing [kg]	Landing [%]	SRI relevant	SRI
2016 Engraulis encrasicolus	14	0.0386	0	
2016 Mullus barbatus	3	0.0085	0	1
2016 Sardina pilchardus	728	2.0380	0	T
2016 Solea solea	8873	24.8409	1	
2017 Engraulis encrasicolus	2	0.0045	0	
2017 Merluccius merluccius	107	0.2410	0	
2017 Mullus barbatus	14	0.0312	0	
2017 Sardina pilchardus	108	0.2428	0	1
2017 Sepia officinalis	830	1.8724	0	
2017 Solea solea	11111	25.0684	1	
2017 Squilla mantis	416	0.9375	0	
2018 Engraulis encrasicolus	1	0.0035	0	
2018 Merluccius merluccius	417	1.2287	0	
2018 Mullus barbatus	14	0.0414	0	
2018 Sardina pilchardus	7	0.0209	0	1
2018 Sepia officinalis	351	1.0332	0	
2018 Solea solea	7996	23.5572	1	
2018 Squilla mantis	262	0.7722	0	
2019 Engraulis encrasicolus	10	0.0326	0	
2019 Merluccius merluccius	1383	4.4038	0	
2019 Mullus barbatus	8	0.0258	0	0
2019 Penaeus kerathurus	2	0.0048	0	U
2019 Sardina pilchardus	31	0.0987	0	
2019 Squilla mantis	358	1.1389	0	

DFN VL1218

The fleet segments DFN VL1218 is mainly relying on stocks for which stocks assessments are not available. In terms of landing those stocks averaged 65.77% between 2016 and 2019 while in 2019 the value was 98.19%. Table 13 represents values of landings, percent of landings and SRI.

Table 13 Selected stocks for SRI calculation in fleet segment DFN VL1218.

Year Stock	Landing [kg]	Landing [%]	SRI relevant	SRI	
2016 Engraulis encrasicolus	1691	13.5940	1		_
2016 Sardina pilchardus	8324	66.9285	1	2	
2016 Solea solea	253	2.0338	0		
2017 Engraulis encrasicolus	218	2.6166	0		_
2017 Sardina pilchardus	3920	47.1157	1	1	
2017 Solea solea	10	0.1208	0		_
2018 Solea solea	4	2.6479	0	0	_
2018 Squilla mantis	0	0.0654	0	0	
2019 Squilla mantis	5	1.8051	0	0	

DTS VL0612

The fleet segments DTS VL0612 is mainly relying on stocks for which stocks assessments are not available. In terms of landing those stocks averaged 91.01% between 2016 and 2019 while in 2019 the value was 90.82%. Table 14 represents values of landings, percent of landings and SRI.

Year Stock	Landing [kg]	Landing [%]	SRI relevant	SRI
2016 Mullus barbatus	608	3.5287	0	
2016 Sardina pilchardus	23	0.1317	0	0
2016 Solea solea	41	0.2385	0	
2017 Engraulis encrasicolus	5	0.0331	0	
2017 Merluccius merluccius	140	0.9246	0	
2017 Mullus barbatus	1099	7.2691	0	
2017 Sardina pilchardus	11	0.0694	0	0
2017 Sepia officinalis	86	0.5701	0	
2017 Solea solea	28	0.1882	0	
2017 Squilla mantis	85	0.5636	0	
2018 Merluccius merluccius	334	1.4392	0	
2018 Mullus barbatus	2518	10.8392	1	
2018 Sardina pilchardus	12	0.0529	0	1
2018 Sepia officinalis	67	0.2888	0	T
2018 Solea solea	58	0.2513	0	
2018 Squilla mantis	88	0.3796	0	
2019 Merluccius merluccius	641	3.3497	0	
2019 Mullus barbatus	782	4.0877	0	
2019 Penaeus kerathurus	53	0.2756	0	0
2019 Sardina pilchardus	60	0.3137	0	
2019 Squilla mantis	220	1.1494	0	

Table 14 Selected stocks for SRI calculation in fleet segment DTS VL0612.

DTS VL1218

The fleet segments DTS VL1218 is mainly relying on stocks for which stocks assessments are not available. In terms of landing those stocks averaged 88.53% between 2016 and 2019 while in 2019 the value was 86.85%. Table 15 represents values of landings, percent of landings and SRI.

Table 15 Selected stocks for SRI calculation in fleet segment DTS VL1218.

Year Stock	Landing [kg]	Landing [%]	SRI relevant	SRI
2016 Engraulis encrasicolus	98	0.2087	0	
2016 Mullus barbatus	1786	3.8063	0	0
2016 Sardina pilchardus	1345	2.8656	0	0
2016 Solea solea	158	0.3363	0	
2017 Engraulis encrasicolus	10	0.0241	0	
2017 Merluccius merluccius	270	0.6318	0	
2017 Mullus barbatus	2238	5.2383	0	
2017 Sardina pilchardus	1007	2.3578	0	0
2017 Sepia officinalis	1152	2.6974	0	
2017 Solea solea	119	0.2784	0	
2017 Squilla mantis	543	1.2702	0	
2018 Engraulis encrasicolus	13	0.0227	0	
2018 Merluccius merluccius	1471	2.6722	0	
2018 Mullus barbatus	3494	6.3465	0	
2018 Sardina pilchardus	920	1.6704	0	0
2018 Sepia officinalis	638	1.1579	0	
2018 Solea solea	112	0.2034	0	
2018 Squilla mantis	508	0.9219	0	
2019 Merluccius merluccius	2930	5.3664	0	
2019 Mullus barbatus	2838	5.1991	0	
2019 Penaeus kerathurus	292	0.5348	0	0
2019 Sardina pilchardus	523	0.9586	0	
2019 Squilla mantis	594	1.0882	0	

PS VL0612

The fleet segments PS VL0612 is mainly relying on stocks for which stocks assessments was available. In terms of landing those stocks averaged 2.60% between 2016 and 2017. This fleet segment is inactive since 2018 so it was not possible to calculate SRI indicator for recent years. Table 16 represents values of landings, percent of landings and SRI.

Table 16 Selected stocks for SRI calculation in fleet segment PS VL0612.

Year Stock	Landing [kg]	Landing [%]	SRI relevant	SRI
2016 Engraulis encrasicolus	1105	14.8841	1	
2016 Sardina pilchardus	6020	81.0521	1	2
2016 Solea solea	166	2.2392	0	
2017 Engraulis encrasicolus	721	23.4563	1	
2017 Sardina pilchardus	2248	73.1342	1	2
2017 Sepia officinalis	1	0.0293	0	

PS VL1218

The fleet segments PS VL0612 is mainly relying on stocks for which stocks assessments was available. In terms of landing those stocks counted 4.27% in 2016. This fleet segment is inactive since 2017 so it was not possible to calculate SRI indicator for recent years. Table 17 represents values of landings, percent of landings and SRI.

Table 17 Selected stocks for SRI calculation in fleet segment PS VL1218.

Year Stock	Landing [kg]	Landing [%]	SRI relevant	SRI	
2016 Engraulis encrasicolus	2718	17.0942	1		_
2016 Sardina pilchardus	12484	78.5207	1	2	
2016 Solea solea	18	0.1138	0		

7.4 Economic indicators:

Economic indicators on marine fisheries for 2018

Fleet segment	CR/BER	ROFTA (%)
DFN VL0006	142,65•	690•
DFN VL0612	7,25•	18•
DFN VL1218*	7,25•	18•
DTS VL0612**	0,57•	-1•
DTS VL1218	0,57•	-1•

* Due to the provisions on personal data in accordance with the General Data Protection Regulation, 3 vessels from the DFN VL1218 segment were joined with the vessels in the DFN VL0612 segment for the calculation of the indicator, therefore the two segments share the same indicator value.

** Due to the provisions on personal data in accordance with the General Data Protection Regulation, 3 vessels from the DTS VL0612 segment were joined with the vessels in the DTS VL1218 segment for the calculation of the indicator; therefore the two segments share the same indicator value.

ROI (ROFTA) - Return On Investment

The indicator shows the return on the invested capital in the fisheries sector. For the good status of a particular segment in the Slovenian fishing fleet the value of the indicator should be higher or equal to the low-risk long term interest rates. In this case the invested capital is at least as remunerative as risk-free long-term investments (e.g. state bonds). If the value is negative it means that it would be more profitable to invest money elsewhere than in fisheries.

The average long-term interest rates for Slovenia in period 2014-2018 were 1.60 % (source: http://www.ecb.int/stats/money/long/html/index.en.html).

"Traffic light system":

- poor; ROI<0
- - satisfactory; 0<ROI<rate of return on invesment of risk-free investment
- - good; ROI> rate of return on invesment of risk-free investment

Fleet segment	ROFTA (%)				
	2014	2015	2016	2017	2018
DFN VL0006	19,4	-28	147	434	690
DFN VL0612	37	37	32	47	18
DFN VL1218*	37	37	32	47	18
DTS VL0612**	35	35	36	-5	-1
DTS VL1218	35	35	36	-5	-1
PS VL1218	61	61	37	-15	N/A

* Due to the provisions on personal data in accordance with the General Data Protection Regulation, 3 vessels from the DFN VL1218 segment were joined with the vessels in the DFN VL0612 segment for the calculation of the indicator, therefore the two segments share the same indicator value.

** Due to the provisions on personal data in accordance with the General Data Protection Regulation, 3 vessels from the DTS VL0612 segment were joined with the vessels in the DTS VL1218 segment for the calculation of the indicator; therefore the two segments share the same indicator value.

All three **drift and fixed nets (DFN) segments** had very good results in the observed period 2014-2018.

Both **demersal trawls (DTS) segments** were profitable in the first three years of the observed period. In the last two years, negative profitability was recorded due to the conditions and factors explained below in the section dedicated to the <u>CR / BER</u> indicator.

Vessels in the **purse seins (PS) segment** are no longer active, already for two years (also in 2019), as there is no occurrence of small pelagic fish in size that would be attractive for the market.

<u>CR / BER</u> – Current Revenue Against Break-Even Revenue

The indicator shows whether the sector is commercially profitable or not. If the value of the economic indicator CR/BER is less than one, this indicates expenditure surplusses. It means that the current revenue does not cover expenditure and that fishing is not commercially remunerative.

The CR/BER ratio shows the short-term profitability of the fisheries sector. The BER shows the break-point which is the point where total revenue is equal to total expenditure (TR = TC). If the value of the indicator CR/BER is smaller than one, the cash flow is negative and the fisheries sector is not profitable in the short term, but if the value is higher than one, it shows a remunerative fishing. The short-term indicator does not deal with the relationship between the capital and the costs of the capital.

"Traffic light system":

- - poor; CR/BER < 1
- - satisfactory; CR/BER = 1
- good; CR/BER > 1

Fleet segment	CR/BER (%)				
	2014	2015	2016	2017	2018
DFN VL0006	2,59	-0,12	14,96	61,92	142,65
DFN VL0612	3 <i>,</i> 85	1,5	7,5	18,53	7,25
DFN VL1218*	3,85	1,5	7,5	18,53	7,25
DTS VL0612**	9,07	5,3	12,35	-0,61	0,57
DTS VL1218	9,07	5,3	12,35	-0,61	0,57
PS VL1218	12,2	56,21	16,47	-1,99	NA

* Due to the provisions on personal data in accordance with the General Data Protection Regulation, 3 vessels from the DFN VL1218 segment were joined with the vessels in the DFN VL0612 segment for the calculation of the indicator, therefore the two segments share the same indicator value.

** Due to the provisions on personal data in accordance with the General Data Protection Regulation, 3 vessels from the DTS VL0612 segment were joined with the vessels in the DTS VL1218 segment for the calculation of the indicator; therefore the two segments share the same indicator value.

All three **drift and fixed nets (DFN) segments** had very good results in the observed period 2014-2018.

Both **demersal trawls (DTS) segments** were profitable in the first three years of the observed period. In the last two years, negative profitability was recorded.

Vessels in both length segments depend greatly on the incomes generated from other activities than fisheries, such us excursions for tourists, underwater works etc. In 2014, **DTS VL1218 segment** had 400.000 euros of incomes from other sources, while in 2018 these incomes dropped down to only 20.000 euros. The reason for the decrease in income is also the exit from fishing activity of some fishermen that had high other incomes, which had an impact on total revenues. Given the state of Slovenian fisheries, withdrawal of these actors is completely understandable.

Catch revenues also decreased. These amounted to just over \in 330,000 in 2014, and only \in 200,000 in 2017 (almost a 40% reduction). In 2018, these revenues increased to \in 275,000. The reason for the increase is the entry of a new vessel into the fleet.

On the other hand, the **DTS VL0612 segment** has been having a low level of other incomes, 20.000 euros annually, with the exception in 2017 when they obtained 50.000 euros from other activities than fisheries. Income from catches of this segment is more stable and amounts to around \in 100,000 in the period 2014-2017. In 2018, they increased to \in 150,000.

A very important reason for the poor results in 2018 is also the high price of fuel (the highest since 2014). **DTS segment** is the segment of fishing vessels with by far the highest fuel consumption per kilogram of catch, so fuel costs have a significant impact on the final economic situation of the segment.

Vessels in the **purse seins (PS) segment** are no longer active, already for two years (also in 2019), as there is no occurrence of small pelagic fish in size that would be attractive for the market.

It needs to be emphasized that the analysed segments exploit available fish stocks in very low quantities, which results in low incomes, which hinders their profitability by itself.

7.5 Conclusion on balance by fleet segments assessed in accordance with the proposed indicators

Slovenia has serious reservations regarding the use of the indicators proposed by the "Guidelines for analysis of the balance between fishing capacity and fishing opportunities" for assessing the balance of the Slovenian fisheries sector.

These reservations are presented in the chapter "General remarks of Slovenia regarding the limitations of the indicators proposed by the "Guidelines for analysis of the balance between fishing capacity and fishing opportunities" for the Slovenian fisheries sector." Moreover, also STEFC has many reservations regarding the use of these indicators and conclusions that may be drawn on their basis. Some of these concerns are compiled in the chapter 7.2.

Nevertheless, **biological indicators**, which are directly linked to the exploitation of the stocks are **showing good results for all fleet segments**.

Despite the concerns regarding the appropriateness of the proposed indicators, **all three length segments using drift and fixed nets (DFN)** show very balanced picture in line with the results of the calculated indicators.

Both demersal trawls (DTS) segments have good biological indicators, however economic situation of these segments has worsened in the last couple of years due to a number of factors that are already explained in the chapter with the economic indicators. Nonetheless, due to extremely low landings of these vessels at the regional level (around 75 tons in 2019), which is a volume that has negligible impact on the stocks in the North Adriatic Sea, and other conditions characterizing Slovenian fisheries sector, the segment is considered to be balanced.

As already mentioned in this report, **in purse seines (PS) segment** there was no activity already for the second year and thus we consider it balanced.

Moreover, as stated at the beginning of the report, 11 vessels were active in 2019 in the following gear segments: **FPO - pots and/or traps (1 vessel). HOK- hooks and line gears (9 vessels) and in PMP - active and passive gears (1 vessel).** All these vessels together landed 720 kg (approximately 65 kilograms per vessel), which is 0,6% of the total landings in 2019. Due to really minimal landings of these vessels, indicators were not calculated as they would display misrepresented picture of the impact of these vessels. For obvious reasons we consider these segments to be balanced.

Slovenia is committed to contribute to achieving of the objectives of the Common Fisheries Policy as defined in Article 2 of Regulation (EU) No 1380/2013 on the Common Fisheries Policy through its efforts to achieve a sustainable balance between fishing capacity and fishing opportunities for its fishing fleet. However, at the same time, it needs to be taken into consideration that Slovenian fishery sector and its landings are extremely low (they reached record low landings in 2019 with only 120,7 tons), and thus making Slovenian fisheries sector one of the smallest in the EU. This means that the contribution of the Slovenian fisheries sector to achieving MSY can only be proportional to the actual size and impact of the Slovenian fishing fleets.

Slovenian landings have been decreasing rapidly in recent years, due to a number of factors such as high fuel prices, declining stocks and seasonal nature of fishing and due to many other factors described in various parts of this report. However, an important factor has also been represented by the constraints of the requirements of the Common Fisheries Policy. Although

Slovenia will continue to do everything in its power to achieve a sustainable balance between fishing capacity and fishing opportunities, these efforts should not lead to an eventual disappearance of the Slovenian fisheries sector thus measures are needed for a continued existence and sustainable development of the Slovenian fisheries sector.