

The Annual Report on the Fishing Fleet of Estonia 2012

1. Summary

Decreasing of the fishing opportunities in the main fleet segments (4S1 and 4S3) has had an negative impact on the fleet balance. Although considerable amount of capacity has been removed with public aid from the fleet from 2006 – 2012 (12 326,5 kW and 5 104,43 GT), the overcapacity (mainly in segment 4S1) has remained. The system of transferable fishing concessions (TFC), which allows owner of the fishing rights to decide whether to use it by fishing or by swapping it with other companies in Estonia or in other countries or by giving the fishing right to someone else permanently, has positive effects on the balance of fishing capacity and fishing opportunities. The new national fishing effort adjustment plan that was approved in February 2013 foresees the reduction of segment 4S1 capacity. Application programme for permanent withdrawal of vessels from fleet register is planned to take place in 2013.

The amendment of national Fisheries Act allows the Ministry of Agriculture from 01.01.2011 onwards decide, into which segment new vessels may be added. This amendment has made possible for coastal fishermen to register small fishing vessels into segment 4S2, which are compensated by larger vessels that have been removed from segments 4S1 and 4S3. High seas fishing vessels' segment 4S3 has been relatively stable in the period of 2009 – 2011, but declining catches, entering of the new vessel into the register at the end of the year and technical problems have been factors in a decline of both technical indicator and CPUE.

2. Description of fleets

According to Council Regulation (EC) No 1242/2004, Estonia as one of the Member States to join the EU on 01.05.2004 is not subject to reference levels imposed by the Council Regulation (EC) No 2371/2002 of 20 December 2002. Estonia follows the entry-exit strategy defined in Article 13 of Council Regulation (EC) No 2371/2002. In addition to this scheme, the vessel and its owner must comply with several additional requirements set in the Fisheries Act. On community level, the Estonian marine fishing vessels belong into the MFL segment. On national level, the Government Regulation of 09.03.2004 No 62 determines the criteria for grouping fishing vessels into segments based on overall length (LOA), fishing gear, main target species and fishing grounds, and sets the possibility of entering fishing vessels into a segment. The national segments for marine fishing vessels are: 4S1, vessels with an overall length above 12 metres (the Baltic Sea trawling segment); 4S3, overall length over 24 m (high seas fishery segment) and 4S2, less than 12 metres in length (coastal fishing segment).

In the Baltic Sea trawling segment and high seas fishery (segments 4S1 and 4S3 respectively), the fishing opportunities allocated to Estonia (usually given in tonnes or fishing days) are divided between companies based on their 3-year historical fishing rights. In coastal fishing, (segment 4S2), fishing effort is regulated by the number of fishing gear and the total number (determined by the Ministry of Environment based on scientific advice) is divided between fishing rights owners also based on their 3-year historical fishing rights.

In the end of 2012, there were 1 360 vessels in the Estonian fishing vessel register with overall engine power of 46 570 kW and gross tonnage of 15 157 GT. The total number of fishing vessels increased by 437 vessels compared to year 2011. Overall gross tonnage increased by 876 GT and engine power by 7 655 kW in the year 2012.

By the end of 2012, there were 42 trawling vessels in the 4S1 segment. These vessels fish in the Baltic Sea and the main target species are Baltic herring, sprat and cod. The vessels in this segment make up for 3 % of the total number of vessels in marine segments and 23 % and 27 % of the overall engine power and the overall gross tonnage, respectively, of vessels in marine segments. The average engine power of a vessel in segment 4S1 was 260 kW, average gross tonnage was 96 GT, length 22 m (LOA) and age 26 years. Catches by fishing vessels in segment 4S1 made about 68 % of total catches made by all Estonian fishing vessels in the 2012.

In the end of 2012, there were 1 312 vessels in the 4S2 segment (96 % of the total number, 42 % of total kW, 13% of total GT). The average engine power of a vessel in segment 4S2 was 15 kW, average gross tonnage was 1,6 GT, length 6 m (LOA) and age 21 years. These vessels fish in the coastal areas of the Baltic Sea, using mainly passive fishing gear and target a variety of species (Baltic herring, European perch, European flounder, pike-perch). Catches by fishing vessels in segment 4S2 made about 13 % of total catches made by all Estonian fishing vessels in the 2012.

The 4S3 segment consisted of 6 vessels by the end of 2012. Although few in number, the vessels make for ca 34 % of the total kW and 60 % of the overall GT of the marine fishing fleet because of their size - the vessels in this segment have an overall length over 24 m. The average engine power of a vessel in segment 4S3 was 2664 kW, average gross tonnage was 1517 GT, length 62 m (LOA) and age 28 years. These vessels fish outside the Baltic Sea, mostly in the NAFO and NEAFC Regulatory Areas, but also in the South-West Atlantic. Main target species is Northern prawn (caught both in NAFO and NEAFC), but several other species are also caught like, for example, redfishes and Greenland halibut. Catches by fishing vessels in segment 4S3 made about 19 % of total catches made by all Estonian fishing vessels in the 2012.

Table 1. Estonian marine fishing vessel segments on 31.12.2012 and total catches in 2012.

Segment	Number of vessels	kW	GT	Main fishing area(s)	Main target species	Total catches (t)
4S1	42	10 901	4 030	Baltic Sea	Baltic herring, sprat, cod	43 483
4S2	1312	19 687	2 027	Baltic Sea, coastal areas	Baltic herring, perch, flounder,	8 728
4S3	6	15 982	9 100	NAFO, NEAFC, South-West Atlantic	Northern prawn, redfishes, Greenland halibut	11 990
Total:	1 360	46 570	15 157		Total:	64 201

3. Link with fisheries

In 2012, Estonian Baltic Sea trawling vessels were allocated the following fishing opportunities in the Baltic Sea (taking into account quota swaps): 1 231.6 tonnes of cod in areas 25-32, 45.48 tonnes of cod in areas 22-24, 7 564.48 tonnes of Baltic herring in the Gulf of Riga and 7 495 tonnes in the rest of the Baltic, and 27 905 tonnes of sprat. Baltic herring and sprat quotas were almost completely exhausted (both 99,3 %), while only 54 % of cod quota was used. 22-24 cod quota was almost fully exchanged with other countries. The total Baltic herring catch for the 4S1 segment was 14 958 tonnes, which makes 68 % of all Baltic herring catches by Estonian fishing vessels. Majority of the 27 906 tonnes of sprat was caught by trawling vessels (27 697.13 t). The overall fishing opportunities for vessels in segment 4S1 decreased compared to the 2011.

Majority (81 %) of the 4S2 segment catches was made of Baltic herring (7088.916 t, 32 % of all Baltic herring catches by Estonian fishing vessels), other species caught were, for example, European perch (549.779 t), European smelt (298,284 t), European flounder (212.891 t) and

pike-perch (146.817 t). The overall catches for vessels in segment 4S2 decreased by almost 16 % compared to the 2011. The main cause of the diminished catches was the reduction of Baltic herring fishing opportunity (by 18 % compared to the 2011), while catches of other species decreased by 7 %.

In the high seas, several fishing opportunities were allocated to the Estonian fishing vessels in 2012 of which some were almost fully exhausted (such as the Greenland halibut (3LMNO), Atlantic cod (3M), redfishes (3LN) and Northern prawn (3L) quotas in the NAFO area), while others, considerably less than 50% was used (Svalbard fishing days). The overall catches of high seas fishing vessels (segment 4S3) decreased by approximately 18 % compared to 2011. As Estonia's some of the most important fishing opportunities have declined (Northern prawn in 3L) or are under a moratorium (Northern prawn in 3M), a relatively large proportion of the fishing opportunities are gained through quota swaps with other countries.

4. Development in fleets

Coastal areas' fisheries has been traditionally an important part of Estonia's commercial fisheries. Relatively large number of fishermen (1 744 in 2011) with the authorisation to fish means that a large number of smaller fishing vessels are needed to conduct fishing activities. As Estonia adheres to the entry-exit regime, the possibilities of registering a new fishing vessel in the fleet register has been limited. Moreover, the transfer of unused capacity (vessels that have been deleted from fleet register without public aid) from one fleet segment to another was not allowed under national legislation until 01.01.2011. This has raised several problems for the coastal fishermen. For this reason, an amendment was introduced in the Fisheries Act and a total of 4 962 kW and 2 400 GT was transferred from segments 4S1 and 4S3 to segment 4S2 to enable to register smaller fishing vessels in the fishing fleet register. These new entries into the fleet were compensated by vessels that were deleted (without public aid) from the fleet segments 4S1 and 4S3 in the period of 2004-2008. The total of 432 new vessels with the capacity of 4 675 kW and 290 GT was registered in the fleet register. The average engine power of these vessels was 11 kW and gross tonnage 0,67 GT.

During 2012, 22 vessels were deleted from the 4S2 segment, none with public aid and total of 463 fishing vessels entered the segment. Overall, the number of vessels in segment 4S2 increased by 441 vessels, total engine power increased by 34 % and total gross tonnage increased by 18 %.

As regards the 4S1 segment, 4 vessels left the register during the year, two of them with public aid and two were exported to another Member State. No new vessels entered the 4S1 segment in 2012, resulting in a decrease of a total number of vessels by 4 vessels, segment's total main engine power and total gross tonnage decreased both by 6 %. One vessel left the segment 4S3 in 2012 (without public aid) and one new vessel entered the segment. Registering of the new fishing vessel was compensated by vessels that were deleted (without public aid) from the fleet segments 4S1 and 4S3 earlier. Although the total number of vessels remained same in segment 4S3 (6 vessels), then the total main engine power increased by 26 % and total gross tonnage increased by 10 %.

5. Effort reduction schemes

On previous years it was possible for fishing vessel owners to apply for public aid for the permanent cessation of a vessel's fishing activities, thereby reducing the total fishing capacity of the fleet. Two fishing vessels were deleted from the fleet register under this scheme in 2012 resulting in permanent decrease of fleet register capacity in main engine power by 128.5 kW and gross tonnage by 26 GT.

Following effort limitations apply for vessels in segment 4S1 when fishing in the Baltic Sea:

- Special fishing permit for fishing for cod may be issued only to vessels that had a special fishing permit in 2005 or if a vessel, who did not have a special fishing permit in 2005, applies for special fishing permit, at least a vessel with an equivalent capacity in kilowatts is prevented from fishing in the Baltic Sea with any gear for cod fishing according to the Article 10 paragraph 2 of the Council Regulation (EC) 1098/2007 on establishing a multiannual plan for the cod stocks in the Baltic Sea and the fisheries exploiting those stocks. Ministry of Agriculture compiles a list of vessels who are permitted to fish for cod on a yearly basis and the list for 2012 consists of 19 vessels with the total main engine power of 6 775 kW and gross tonnage of 2 604 GT. Eleven of these vessels caught cod in 2012.
- Special fishing permit for fishing in subdivision 28-1 may be issued only to vessels whose engine power does not exceed 221 kilowatts (kW) at any time and the total engine power (kW) of the vessels must not exceed that observed for each Member State in the years 2000-2001 in subdivision 28-1 according to the Article 20 of the Council Regulation (EC) 2187/2005, for the conservation of fishery resources through technical measures in the Baltic Sea, the Belts and the Sound. Ministry of Agriculture compiles a list of vessels who are permitted to fish in subdivision 28-1 on a yearly basis and the list for 2012 consists of 21 vessels with the total main engine power of 4 566 kW. All of these vessels fished in subdivision 28-1 in 2012.

Effort limitations for high seas fishing vessels include, for example, the restriction to fish with more than 3 vessels in Svalbard at the same time and fishing for deep-sea species in ICES sub-areas I to XIV is allowed only with special fishing permits and the aggregate power and the aggregate volume of the vessels may not exceed the one of the vessels that landed more than 10 tonnes of any mixture of deep-sea species in any one of the years 2000, 2001 or 2002 (Article 4 of the Council Regulation 2347/2002, establishing specific access requirements and associated conditions applicable to fishing for deepsea stocks). Three high seas vessels were licenced to fish in the Svalbard at the same time in 2012, but only one vessel was in the Svalbard while the other two were fishing in the Barents Sea. None of the high seas vessels fished for deep-sea species in ICES sub-areas I to XIV, therefore the Article 4 of the Council Regulation 2347/2002 was not applied.

6. Compliance with entry-exit scheme

Estonia adheres to the entry-exit strategy when entering fishing vessels into the fleet register. As a result of following the entry-exit strategy, the fishing capacity of the Estonian fleet has reduced over time. It has also made it possible to monitor and control the increase in engine power and gross tonnage in the fishing fleet. The entry of a new fishing vessel into the register is refused if there is no free fishing capacity or the vessel does not comply with the requirements set by national or EU legislation. The fishing capacity of a vessel deleted from the register with public aid can not be replaced.

As can be seen from the table below, the capacity of the vessels that entered into the fleet in 2012 exceeded the capacity of vessels that exited the fleet, but every entry into the fleet register was covered by the earlier removals from the fleet and the overall balance of the fleet has been remained (see Annex I).

Table 2. Entry-exit balance in 2012.

Year 2012	kW	GT
Exits (without public aid)	3 153.87	1 804.59
Exits (with public aid)	128.5	26.0
Entries	11 015.24	2 707.9

7. Summary of weaknesses and strengths of fleet management system and general level of compliance with fleet policy instruments

The main strength of the Estonian fleet management system is the system of transferable fishing concessions (TFC), which allows owner of the fishing rights to decide whether to fish by it or give the right to someone else. Although, as the results from balance indicators show, there is still overcapacity in the fishing fleet, the application of TFC with other management methods have the potential to improve the balance of the fishing fleet. Some technical and administrative issues that complicate data checks between different national registers can also be seen as weaknesses of the fleet management system.

8. Plans for improvements in fleet management system and changes of the administrative procedures relevant to fleet management

The amendment of national Fisheries Act allows the Ministry of Agriculture from 01.01.2011 onwards decide, into which segment new vessels may be added. New capacity must be compensated by the same quantity of capacity that has been removed from fleet register without public aid. This amendment has made possible for coastal fishermen to register small fishing vessels into segment 4S2, which are compensated by larger vessels that have been removed from segments 4S1 and 4S3.

Changes in national fleet management system concern the implementation of the point system for serious infringements according to the Article 92 of the Council Regulation (EC) No 1242/2004. The implementation of the point system for serious infringements is nationally divided between two authorities: the Environmental Inspectorate keeps the national register of infringements and is authorized to assign points for serious infringements and informs the Ministry of Agriculture of the number of points assigned to the holder of the fishing licence. The Ministry of Agriculture is authorized to make decisions to suspend or permanently withdraw the fishing licence.

9. Application of the balance indicators

The technical indicator is calculated in terms of fishing days. The biological indicator is calculated in catch per unit of effort (CPUE). Both, technical and biological indicator data has been calculated based on data from those fishing vessels in 4S1 and 4S3 segments that performed fishing operations in 2008 – 2012 (the vessels with zero fishing days have been omitted). Fishing effort in segment 4S2 is regulated by the number of fishing gear and the fishing activities can be conducted without a vessel in a several months in a year (ice-fishing), therefore the application of balance indicators in segment 4S2 is not relevant.

The Ministry of Environment as the authority responsible for the collection of the data under the Data Collection Framework (DCF) has not completed the collection of economic indicators data for 2011 and 2012. Therefore, the calculation of the economic and social indicators for 2011 and 2012 are excluded from this report and the calculations will be sent after the data becomes available.

9.1. Technical indicator

The technical indicator was calculated separately for the Baltic Sea trawling vessel segment (4S1) and the high seas fishery segment (4S3), based on data from 2008 to 2012. Inactive vessels were excluded from the calculation of the technical indicator. The proportion of inactive vessels are shown in the table below.

Table 3. Proportion of inactive vessels in the total fleet.

year 2012	Active			Inactive			Proportion of inactive vessels	
Segment	No of vessels	kW	GT	No of vessels	kW	GT	kW (%)	GT (%)
4S1	36	10 226.44	3 956.25	8	1 249.8	303.4	12.2	7.7
4S3	6	15 982	9 100	1	2 208	1 531	13.8	16.8

As can be seen from the chart below (Chart 1), the maximum number of fishing days in segment 4S1 in 2012 has risen to 199 days compared to 166 days in 2011, while the average ratio between a given vessel's number of fishing days and the maximum number of fishing days for year 2012 has slightly fallen. Ratio 0.58 refers to an overcapacity in the 4S1 segment according to the STECF guidelines, where an indicator below 0.7 shows structural overcapacity. The maximum number of fishing days for the 4S3 vessels has decreased from 322 in 2011 to 284 in 2012. The minimum number of fishing days fell drastically in 2012, caused by the entering of a new fishing vessel into the fleet at the end of the year (Chart 2). Fishing activities of the new vessel were cut short because of the technical issues. As another high seas vessel had technical problems too, which resulted in months off the sea, the overall decrease of the average ratio of the segment 4S3 from 0.83 in the period of 2009 – 2011 to 0,72 was the result.

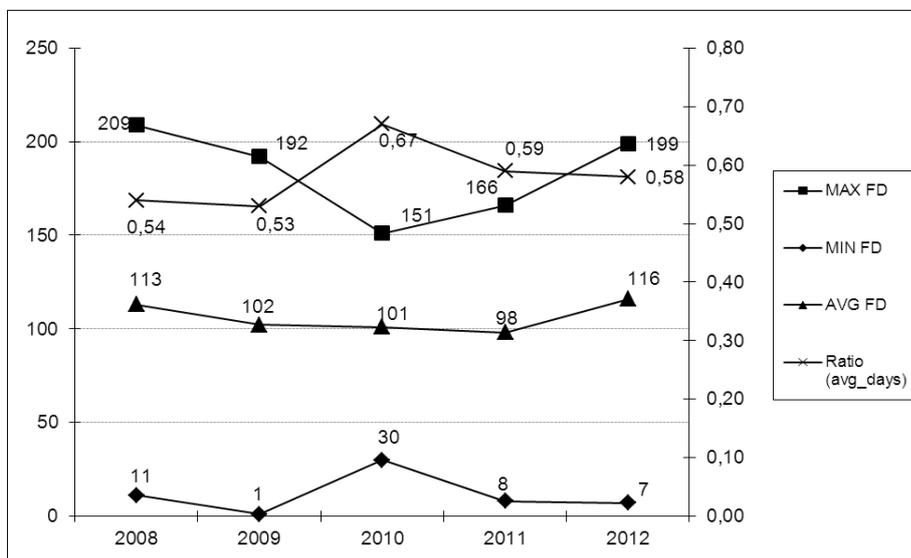


Chart 1. Number of fishing days and technical indicator (Ratio) for 4S1 segment in 2008-2012.

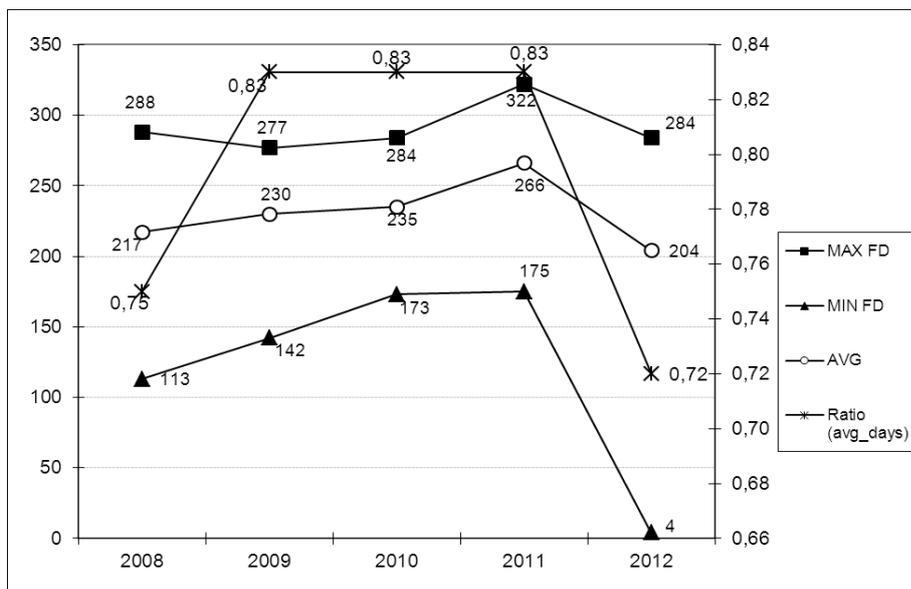


Chart 2. Number of fishing days and technical indicator (Ratio) for 4S3 segment in 2008-2012.

9.2. Biological indicator

The biological indicator (CPUE) was calculated separately for the Baltic Sea trawling vessel segment (4S1) and the high seas fishery segment (4S3), based on data from 2008 to 2012. As can be seen from chart 3, both the maximum and average CPUE in segment 4S1 have decreased together with the decline of total catches. The total catches and average CPUE in segment 4S3 have fallen too.

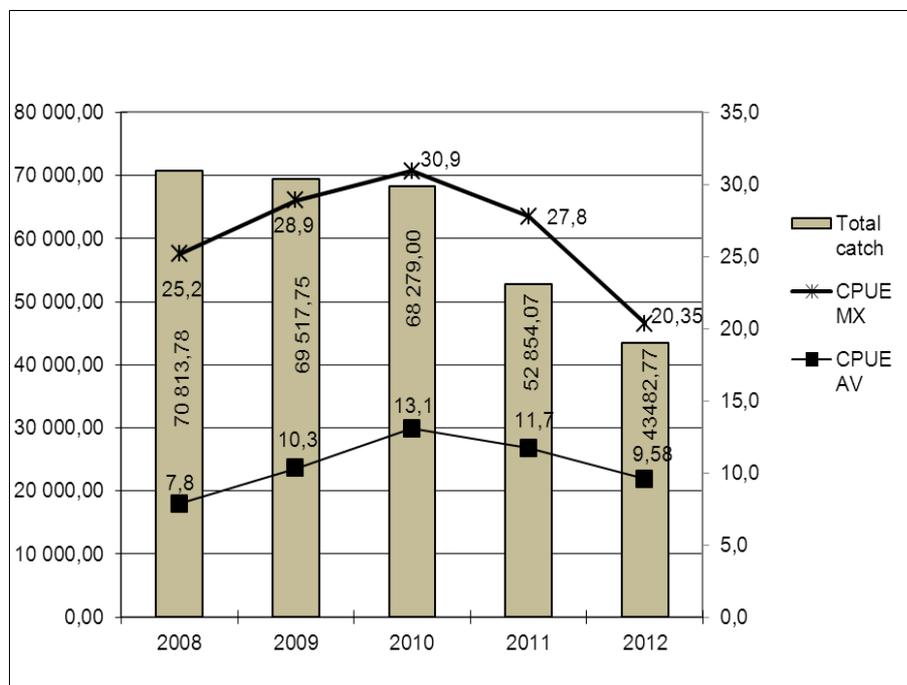


Chart 3. CPUE and total catch for 4S1 vessels in 2008-2012.

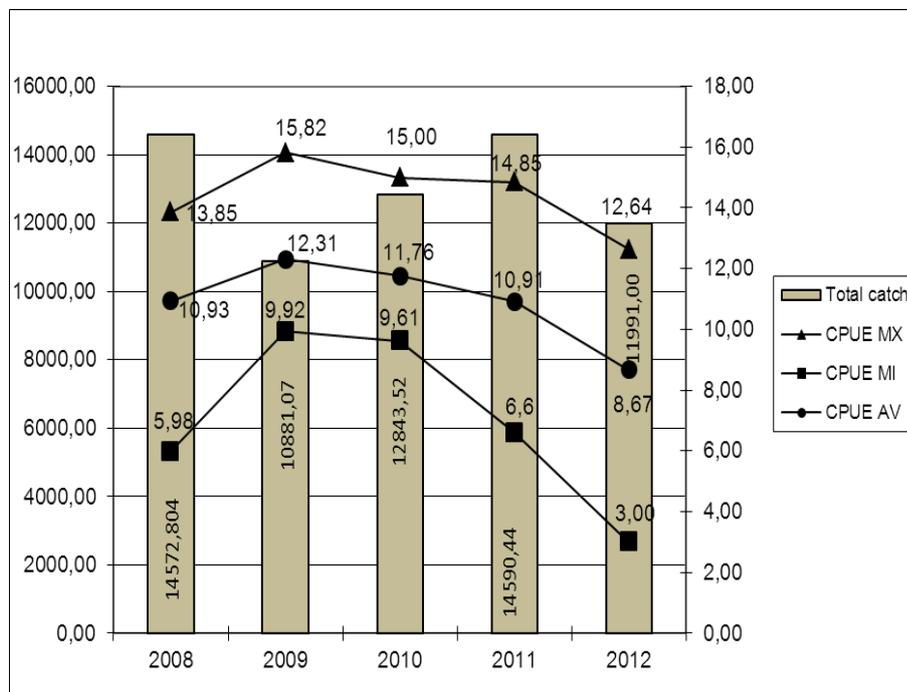


Chart 4. CPUE and total catch for 4S3 vessels in 2008-2012.

10. Balance of fleet capacity and fishing opportunity

The Estonian Marine Institute (EMI) has analysed the fishing capacity of different segments of the Estonian fishing fleet in 2006, 2008 and in 2012. National fishing effort adjustment plans, which have to be in compliance with the Council Regulation (EC) No 1198/2006, on the European Fisheries Fund, have been compiled on the basis of these studies. According to the EMI year 2008 study, the optimum fishing capacity of the segment 4S1 would be ca

12 500 kW and 5000 GT. However, since this assessment of optimum capacity is based on the assumption that the fleet uses its fishing capacity fully, and since this assumption may not be very realistic, the study concludes that the capacity of the 4S1 segment should not fall below ca 14 400 kW and 5800 GT. In 2012, the EMI issued new report, based on 2011 data. According to this, the capacity of the 4S1 segment should not fall below 10 852 kW and 4 214 GT.

According to the fleet register, the capacity of the 4S1 segment at the end of 2012 was 10 901 kW and 4 030 GT. However, this does not include the capacity of vessels that left the register without public aid that, according to the entry-exit scheme can be replaced. When this unused capacity is also taken into account, the potential fishing capacity of the 4S1 segment at the end of 2012 was ca 12 700 kW and 5 100 GT. Therefore, the capacity of the segment 4S1 exceeds the minimum fishing capacity, which together with the technical indicator refers to the overcapacity of the segment. The new national fishing effort adjustment plan that was approved in February 2013 foresees the reduction of segment 4S1 capacity. Application programme for permanent withdrawal of vessels from fleet register is planned to take place in 2013.

As regards the 4S3 segment, the minimum fishing capacity necessary to make use of all Estonia's high seas fishing quotas (based on the EMI year 2008 analysis) would be ca 16 900 kW and 12 700 GT. The EMI year 2012 report didn't include the analyse of segment 4S3. At the end of 2012, the total capacity of active 4S3 fishing vessels was 15 982 kW and 9 100 GT; the potential fishing capacity (which, in addition to active fishing vessels, includes the fishing capacity of vessels that left the register without public aid) was 18 200 kW and 11 500 GT, i.e. above the minimum fishing capacity in terms of main engine power, but below the minimum gross tonnage.

Annex I

Application of the entry-exit regime

a) Calculation of the baselines (GT04 and kW04) on 01/05/2004
Estonia

GTFR	GT1	GT2	GT3	GT4	GT04
26 625	0	0	0	0	26 625

kWFR	kW1	kW2	kW3	kW4	kW04
64 967	0	0	0	0	64 967

Management of the Estonia's entry-exit regime on 31/12/2012		GT		kW	
1	Capacity of the fleet on 01/05/2004	GTFR	26625	kWFR	64967
2	Capacity level for the application of the entry-exit regime	GT04	26625	kW04	64967
3	Entries of vessels of more than 100 GT financed with public aid	GT100	0	kW100	0
4	Other entries or capacity increases (not included in 3 & 5)		9039		26313
5	Increases in tonnage GT for reasons of safety	GTS	0		
6	Total entries (3 + 4 + 5)		9039		26313
7	Exits before 01/01/2007 financed with public aid	GTa1	1779		4691
8	Exits after 01/01/2007 financed with public aid	GTa2	3325	kWa	7636
9	Other exits (not included in 7 & 8)		15403		32383
10	Total exits (7 + 8 + 9)		20507		44710
11	Power of engines replaced with public aid conditional to power reduction			kWr	0
12	Capacity of the fleet on 31/12/2012 (1 + 6 - 10)	GTt	15157	kWt	46570
13	Fleet ceiling on 31/12/2012		21680		52640

The Annual Report on the Fishing Fleet of Estonia 2012

9. Application of the balance indicators

9.3. Economic indicator

The economic indicator is calculated separately for different length classes, excluding vessels with overall length 40 m and more (length class VL40xx) as the number of active vessels in this length class is too small. The Return on Investment (ROI) was chosen to describe the economical profitability of the fleet. Inactive vessels were excluded from the calculation of the economic indicator.

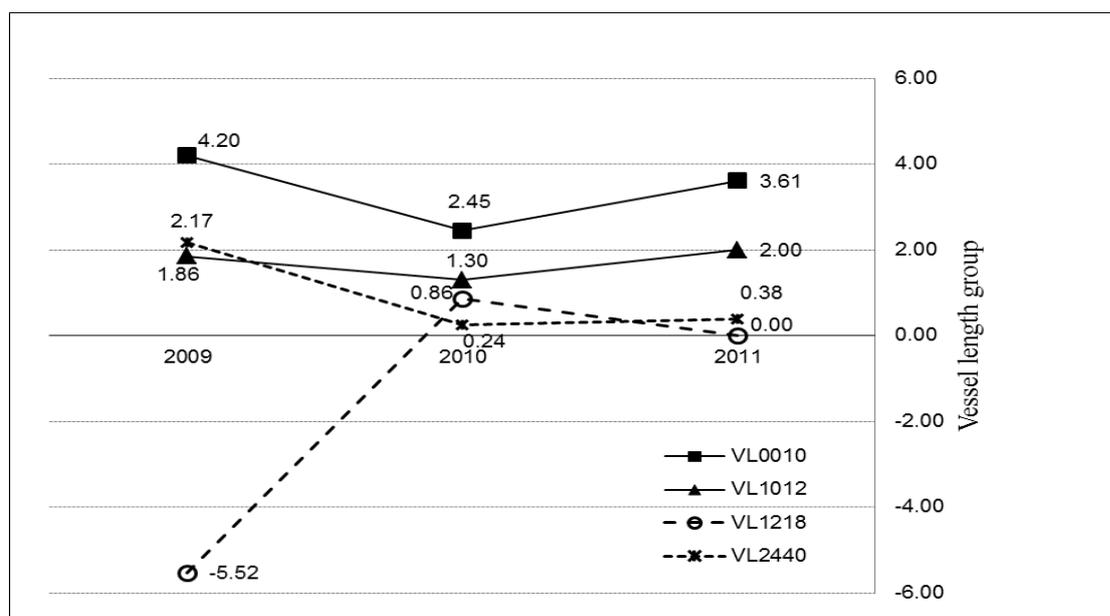


Chart 5. ROI for different vessel length groups in years 2009-2011.

Over the three-year period, the ROI has been rather stable in vessel group 10-12 metres of length, but has been very fluctuating in vessel group 12-18 metres of length. Vessel length group VL2440 is showing also a considerable stability. The data concerning the investments in physical capital was not present for year 2011 in vessel length group 12-18 metres, therefore the value of ROI is 0. Results greater than zero suggest that extraordinary profits are being generated, a sign of economic undercapitalisation, according to the guidelines. Results well above 0 in vessel length groups VL0010 and VL1012 (coastal fishing) can be explained by the nature of the allocation of fishing opportunities in coastal fisheries, where fishing effort is regulated by the type and number of fishing gears (individual transferable effort, ITE) instead of ITQ-system.

9.4. Social indicator

The social indicator is calculated for the period 2009-2011 by average wage per full-time equivalent job (FTE). The social indicator is calculated separately for different length classes, excluding vessels with overall length 40 m and more (length class VL40xx) as the number of active vessels in this length class is too small. The DCF data for calculating FTE in vessel length classes VL0010 and VL1012 for years 2009 was not available.

Table 4. Average wage per full-time equivalent job (FTE) by vessel length classes.

Year	VL0010	VL1012	VL1218	VL2440	VL40xx	Average yearly wage of all fields of occupation (EUR)*	Average yearly wage in agriculture, fisheries and forestry sector (EUR)*
2009	NA	NA	8502.53	15817.07	NA	9405.75	7600.37
2010	3419.55	2974.15	7392.9	17162.57	NA	9507.75	8010.69
2011	3722.01	3175.39	5845.22	16962.85	NA	10068.00	8376.00

* by Statistics Estonia. Average yearly wage is the result of multiplying monthly average wage by 12.

As can be seen from the table, the average wage per full-time equivalent job in coastal fisheries (vessel length classes VL0010 and VL1012) is low compared to average wage in other vessel length classes and compared also with nation's average yearly wage. This can be explained by the nature of coastal fisheries, where commercial fishing is often not the only source of income and all catches aren't sold, but are used for own consumption.