

Common Fishery Policy – lessons we learnt: the experience of new member states

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Abstract. There is still a significant level of overcapacity in the European Union fisheries despite of over two decades of capacity adjustment programmes functioning. Significant amount of money spent through Financial Instrument for Fisheries Guidance (FIFG) to achieve a Common Fishery Policy (CFP) objective of sustainable exploitation of fish resources have had so far insignificant impact on stocks condition improvement. This paper examines the results of Polish and Lithuanian fleet adjustment programmes experiences, which constituted the most important measure among other priorities financed under CFP means in 2004-2006.

Introduction

The main objective of this paper is to provide an analysis of the use of Financial Instrument for Fisheries Guidance (FIFG) in management of EU fleet capacity and changes which have been implemented with the use of the fund, with particular attention to Polish and Lithuanian fisheries. The paper is composed of two main sections. The first part describes general development of EU Baltic fleet and fisheries. Special attention is given to the impact of FIFG decommissioning funds on fleet capacity adjustment in Baltic member states. Then the evolution of fleet capacity in Poland and Lithuania with structural funds assistance was examined. The paper is concluded with a discussion of main positive and negative experiences gathered after completion of the first phase of capacity reduction programme in Poland and Lithuania in 2004-2006.

Accession to the EU and the accompanying inflow of structural funding resulted in substantial growth in the economy of new member states. The fundamental issue facing fisheries in Baltic new member countries were ineffective fleet structure and overcapacity problem that has been arising since mid 80's. In 2004 "too many vessels and too little fish" problem remain unsolved in many fishing areas exploited by European Union fleets. Baltic Sea was not an exception. Common Fisheries Policy (CFP) together with Financial Instrument for Fisheries Guidance provided a set of tools to help to resolve these problems.

The Common Fisheries Policy is the European Union's instrument for the management of fisheries and aquaculture. Conservation, management and exploitation of living aquatic resources, aquaculture, the processing and marketing of fishery and aquaculture products are the main subjects of CFP¹. The Financial Instrument for Fisheries Guidance (established in 1993) is a main CFP tool to achieve these goals leading to sustainable exploitation of fish resources, strengthening the competitiveness of structures and the development of economically viable enterprises in the sector and others.²

The last programming period of FIFG was set up for 2000–2006 in old member states and for 2004–2006 in new member states (that entered EU in 2004). The total budget of FIFG for the period 2000–

¹ Council Regulation (EC) No 2371/2002 of 20 December 2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy.

² Council Regulation (EC) No 1263/1999 of 21 June 1999 on the Financial Instrument for Fisheries Guidance.

2006 was 4,100 million euro including 270 million euro for new MS.³ The measures implemented with assistance from the FIFG included various structural issues in the fishery sector including fleet adjustment.

In the end of April 2009 the European Commission raised debates on the future of Common Fishery Policy. The Green Paper on the reform of the CFP was distributed among member states, which were invited to express their opinion about the issue. Some positive changes were observed in fisheries management; however, the overcapacity problem was still unsolved. It is stated in the Green Paper, that while a few EU fleets are profitable with no public support, most of Europe's fishing fleets are either running losses or returning low profits. The overall poor performance is explained by chronic overcapacity of which overfishing is both a cause and a consequence: fleets have the power to fish much more than can safely be removed without jeopardising the future productivity of stocks. Capacity reductions in recent years have not been sufficient to break this vicious circle. Although it varies significantly by marine region and fleet, on average fleets have been reduced by only 2 % a year. The imbalance between the fleet and available fish was not redressed. The overall result is reduced landings and a heavier reliance of the EU market on imports⁴.

Baltic fisheries and fleets

The Baltic Sea is one of the largest brackish areas in the world. It receives fresh water from a number of larger and smaller rivers while salt water enters from the North Sea along the bottom of the narrow straits between Denmark and Sweden. This creates a salinity gradient from southwest to northeast and a water circulation characterized by the inflow of saline bottom water and a surface current of brackish water flowing out of the area⁵.

The fish production of the Baltic Sea has been relatively stable over last several decades (except of the cod crisis that begun in the second half of the 80's) with an average annual outcome of about 800 thousand tonnes (Fig. 1). What has been observed during the recent years is the relative dominance of small pelagic species (sprat and herring) over the demersal fish. This has influenced the composition of the fleet which after collapse of cod fisheries has generally developed towards more powerful and bigger vessels targeting pelagic species.

Herring, sprat, cod and flatfishes are some of the few Baltic inhabiting and commercially exploited marine species. They constitute about 95% of the total catches. Some anadromus and fresh water species like perch, pike-perch, salmonids and eel are important as well but only in coastal areas.

For many years cod has been economically the most important fish stock in the Baltic Sea. This species accounted for 33–85% of the value of landings of main commercial species in the Baltic Sea at least since 70's (Fig. 2). A high exploitation rate as well as unfavourable environmental conditions caused the situation that stocks in the Baltic Sea are under the safe biological level. The main fisheries for cod in the Baltic use demersal trawls and gillnets.

³ Third Edition of The Common Fisheries Policy Compliance Scoreboard, 2005.

⁴ Green Paper Reform of the Common Fisheries Policy, Brussels, 22.4.2009 COM(2009)163 final

⁵ ICES Advice 2008, Book 8 The Baltic Sea

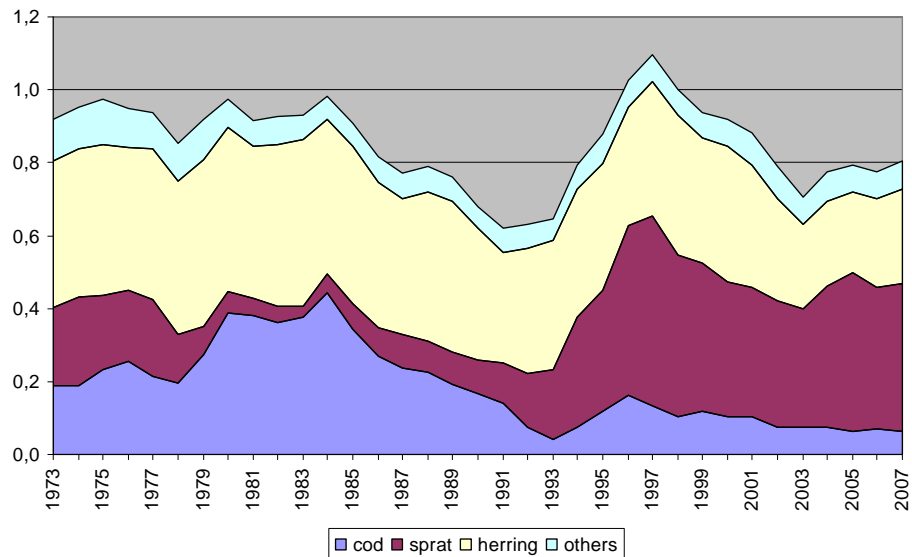


Fig. 1. Cod and total catches in the Baltic Sea in 1973–2007 (million tonnes)

Data source: ICES, FAO Fishstat plus.

Herring and sprat are the second most important fish species for the Baltic fishery. These species are mostly fished with pelagic trawls and their prices are 5–10 times lower than the price of cod. However, the average volume of herring landings during recent 10 years has been more than 4 times higher than the volume of cod. The pelagic species (mainly sprats) are used for human consumption or reduction to oil and meal. The usage to a large extent is driven by the market conditions.

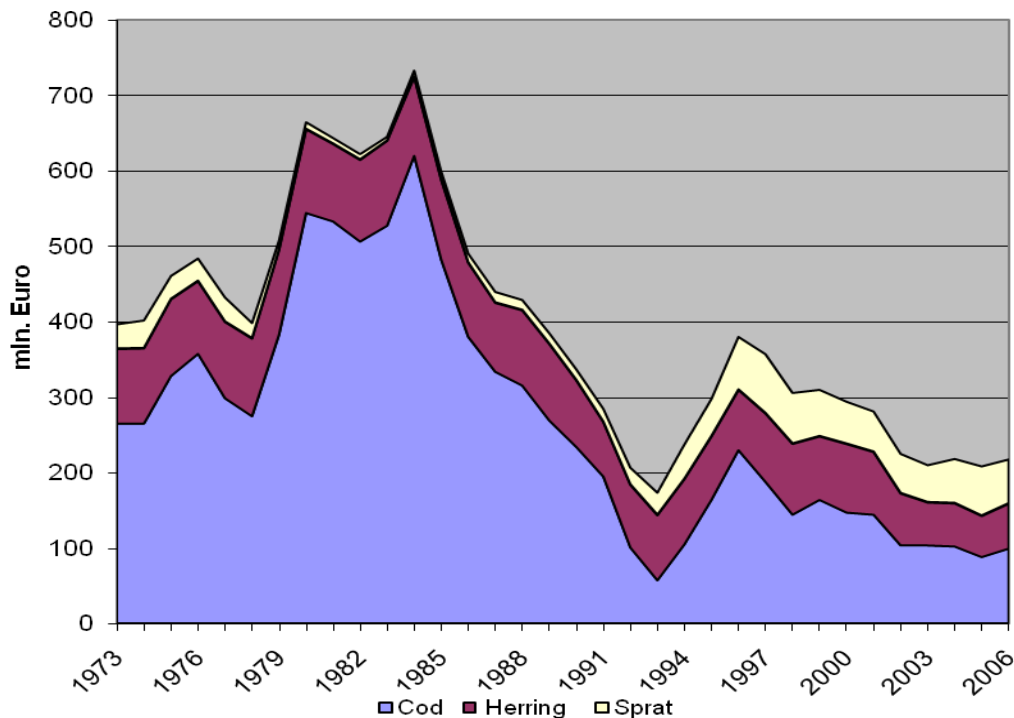


Fig. 2. Value of catches of three main fish species in the Baltic Sea (at 2007 price).

Source: calculations based on the ICES nominal fish catches in the Baltic data and AER 2009 price data.

There are 8 EU MS bordering the Baltic Sea and fishing in the region. The most of North-Eastern countries: Finland, Estonia, Latvia, Lithuania and Poland fish in the Baltic Sea (except of high sea vessels >40 m, which are fishing in the Oceans). German, Swedish and Danish fleets may switch

between the Baltic Sea and the North Sea (what unfortunately makes a clear distinction between the Baltic and Atlantic fleets difficult).

The fleets of new EU MS, which joined the Union in 2004, account for about 46% of gross tonnage (GT) and only 29% of engine power (kW) and 25% of the number of vessels. That means that vessels of old MS are twice more powerful than those of new MS. Since 2004 the total fleet of Baltic MS has been reduced by 16% of GT and 15% of kW (about 2% per year). The reduction of 22% of GT and 26% of kW has been achieved in the new MS, while the old MS reduced their fleets by about 11% (see Table 1).

Table 1. Development in fishing fleets of the Baltic countries in 2004–2008

Country	31.12.2004			31.12.2008			Change 2008/2004		
	No	GT	kW	No	GT	kW	No	GT	kW
DEU	2,163	66,301	161,987	1,826	69,131	161,216	-16%	4%	0%
DNK	3,403	96,051	335,614	2,894	73,024	263,833	-15%	-24%	-21%
FIN	3,393	18,160	179,379	3,240	16,046	169,707	-5%	-12%	-5%
SWE	1,603	44,893	219,595	1,486	41,807	208,913	-7%	-7%	-5%
old MS	10,562	225,405	896,574	9,446	200,008	803,669	-11%	-11%	-10%
EST	1,052	24,918	63,264	966	17,808	45,974	-8%	-29%	-27%
LTU	293	75,586	77,684	221	50,478	59,794	-25%	-33%	-23%
LVA	942	42,135	70,982	841	38,228	61,080	-11%	-9%	-14%
POL	1,248	45,567	147,086	833	40,971	98,958	-33%	-10%	-33%
new MS	3,535	188,205	359,016	2,861	147,485	265,807	-19%	-22%	-26%
Total	14,097	413,610	1,255,590	12,307	347,493	1,069,475	-13%	-16%	-15%

Source: calculations based on the EU fleet register data.

Capacity reduction programmes in the Baltic countries

The management of fishing capacity has been a priority issue of the Common Fisheries Policy over the last two decades.⁶ The capacity reduction programmes in the new Baltic member states have been adopted sharply after their accession to the EU. In 2004 the total capacity of 3.9 thousand GT was removed from the fleet register in the Baltic States, of which 45% belonged to the new member states (Poland, Lithuania, Estonia and Latvia). The total amount of 17 million euro was allocated for compensation of the capacity withdrawn. In the peak year 2005 almost 20 thousand GT was removed with public assistance for 76 million euro. This constituted 6% of the capacities registered in the Baltic countries (including deep-sea fisheries). The Polish fleet has experienced the highest reduction of the capacity: 19.5 thousand GT removed in 2004–2007 constituted as much as 43% of the tonnage registered at the end of 2004. The other new member states have reduced their fleets as follows: Latvia – by 9%, Estonia – by 8% and Lithuania – by 3%. The old member states experienced relatively smaller reduction: Denmark –14%, Sweden –10%, Finland - 7% and Germany - 0.5%. These countries however reduced most of their capacity before the 2000–2006 programming period.

⁶ Vestergaard N., Fishing Capacity in Europe: Special Issue introduction. MRE, volume 20. pp.323-326.

Table 2. Total costs of capacity reduction programmes and amount of capacity removed with public money in the Baltic countries (2000–2007).

Member states	Costs of capacity reduction programmes, mill. euro	Total FIGG budget, mill. euro	Share of capacity reduction programmes	Reduced capacity, GT	Total capacity*, GT	Share of capacity reduced
DE	0.8	219.9	0%	312	71,168	0%
DK	60.6	213.3	28%	13,129	107,471	14%
FI	4.1	40.4	10%	1,430	20,819	7%
SE	9.7	76.8	13%	3,886	51,394	10%
Old MS	75.2	550.4	14%	18,757	250,852	9%
EE	4.2	12.5	34%	1,977	24,918	8%
LT	7.6	12.1	62%	1,918	75,586	3%
LV	16.9	24.3	69%	3,975	42,135	9%
PL	80.7	201.8	40%	19,471	45,567	43%
New MS	109.4	250.7	44%	27,341	188,206	15%
Total	184.6	801.1	23%	46,099	430,864	11%

* as of 31 December 2000 for FI, DE, SE and DK; as of 31 December 2004 for EE, LT, PL and LV

Source: own calculation on the basis of data obtained from Directorate General Maritime Affairs and Fisheries, June 2009 and EU fleet register data.

The cost efficiency of the reduction schemes was different among countries and dependent on individual assessment of the expected success that could be achieved if certain compensation rates are adopted. The lowest compensation rate for the capacity removed was applied in Estonia, i.e. 2,100 euro per GT. In Sweden or German 1 GT cost about 2,500 euro. The highest average compensation was paid in Latvia, Denmark and Poland (about 4,200 euro/GT), followed by Lithuania (3,900 euro/GT).

According to the EU regulation, scales of assistance were inversely proportional to the vessel size – a smaller vessel get usually higher compensation per GT (Table 3). Descending rates were applied according to the vessel age. This may partly explain the differences in premiums paid in different countries.

Table 3. Scales of assistance relating to fishing fleets according to Council Regulation (EC) No 2792/1999

Category of vessel by tonnage (GT)	EUR
0 < 10	11 000/GT + 2 000
10 < 25	5 000/GT + 62 000
25 < 100	4 200/GT + 82 000
100 < 300	2 700/GT + 232 000
300 < 500	2 200/GT + 382 000
500 and above	1 200/GT + 882 000

Another explanation for the differences in amount of compensation payment could be the size of overcapacity that existed in the Baltic fleets before the capacity reduction programmes started. These countries which decided on a higher reduction level usually paid higher premiums for scrapped vessels. This was especially the case of Poland where about 40% of the capacity has been withdrawn with public assistance. However, the level of capacity reduction in other countries which applied similarly high premium rates as Poland was much lower e.g. in Latvia or Denmark.

Obviously the implementation of FIGG depended on the national regulations, some MS used additional requirements in the EU rules to reduce premiums, e. g. in Denmark it was not allowed to pay more than 80% of the insurance value, Estonia applied bidding system. Other countries like Poland and Lithuania adopted just EU regulations and applied maximum allowed rates with no additional to CR 2792/1999 eligibility criteria defined.

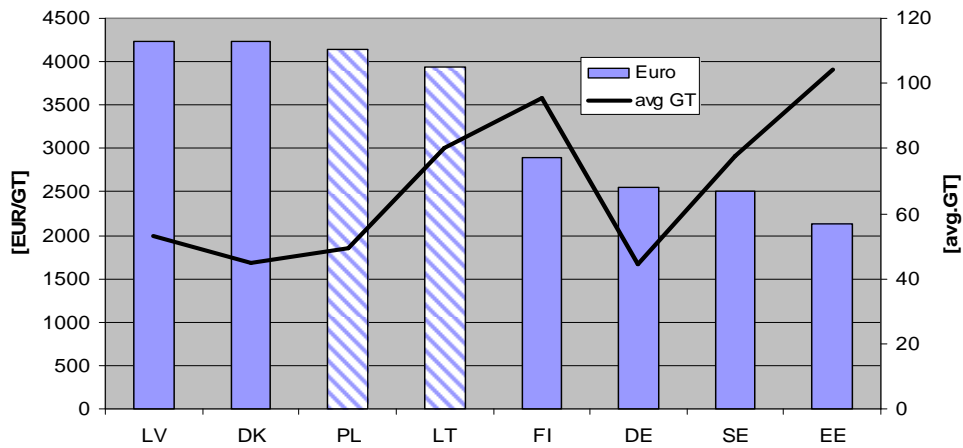


Fig. 3. Average premium actually paid for decommissioned capacity and average capacity (GT) of scrapped vessels in 2002–2007 (Baltic States).

Source: own calculation on the basis of data obtained from Directorate General Maritime Affairs and Fisheries, June 2009

On general the reduction was financed partly by the EU budget (usually 75%) and national funds, with no private contribution. The figure below shows the relation of money spent on capacity reduction programmes to the average incomes generated by fisheries. On average the 2002–2007 capacity reduction in the Baltic States cost 23% of the annual value of catches or as much as 4% of the cumulative revenues generated by the fleet during the years (2004–2007 for the new MS). However, in some cases like Poland or Lithuania the costs were significantly higher (almost two times) compared to the average annual revenues produced by the fisheries.

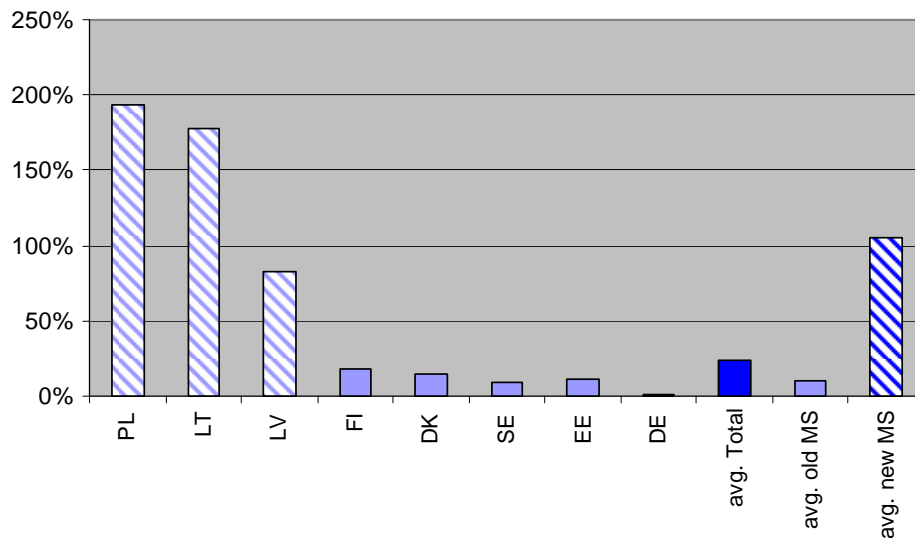


Fig. 4. Relation of total funds spent on decommissioning to average annual incomes produced by fisheries in the Baltic States (based on 2002–2007 data of the old MS and 2005–2007 data of the new MS).

Source: own calculation on the basis of data obtained from Directorate General Maritime Affairs and Fisheries, June 2009

Having in mind high energy costs it should be of primarily importance to direct capacity reduction programmes at the oldest and less energy efficient vessels. This problem has not been sufficiently addressed in the 2000–2006 programming period. The Baltic countries fleet (similarly to other EU countries) is rather old. In 2000 the fleet of old Baltic MS was 22.3 years old. Bigger and more active vessels (over 10 meters) length were even much older (28.2 years). The situation in new member states is quite similar. In 2004 the coastal fleet <10m was 17.7 years old and vessel bigger than 10m 27.8 years old. After several years of structural funds availability the problem of ageing fleet has not

been solved. At the end of 2008 the old MS Baltic countries small scale fleet was 24.6 years old and vessels over 10 meters exceeded 30 years. New MS fleet was respectively 21 and 28.5 years old. Undoubtedly if the capacity reduction was directed at older vessels it would contribute to the improvement of the general technical condition of the fleet. As fleet register data shows destroyed vessels were in fact significantly older than the remaining one, in old MS it was 42.8 years compared to average age of 26.1 years. However in new MS the difference was much lower (7.8 years). The differences between specific countries were as well quite distinct. In case of Sweden or Finland withdrawn fleet was about 16 years older than vessels remained in the fisheries, in Estonia 15 years but in Poland just 3 years.

The positive effect of the reduction of fishing capacity on the Baltic could be the reduction of cod fishing mortality rate (Fig. 5). As we can see from the picture, the cod mortality rate at the age of 3–6 years decreased from 1.36 in 2004 to 0.50 in 2007 in the Eastern Baltic (Subdivision 25-32). And it is not so far from the target defined in the cod management plan in the Baltic. After a few decades of cod quota reduction, ICES for the first time proposed to increase the cod quota for the Eastern Baltic in 2008 and in 2009 by 15% (in accordance with EC multi annual plan for Baltic cod).

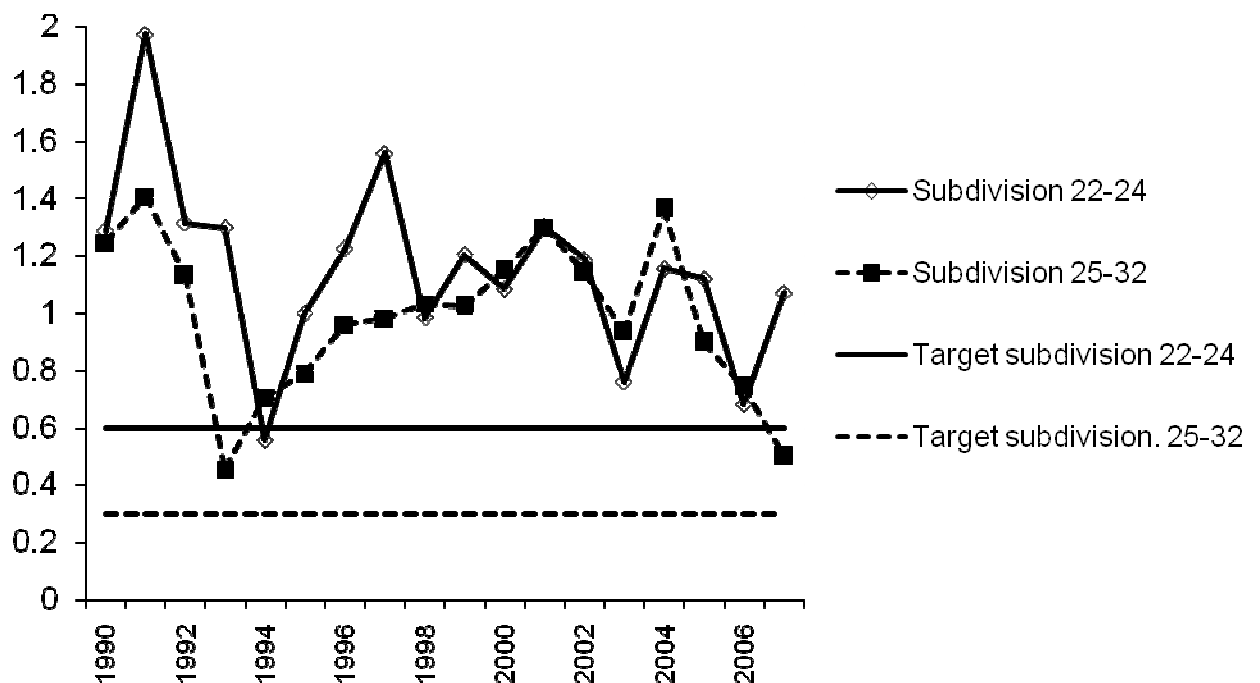


Fig. 5 Cod fishing mortality rates 1990–2007

Data source: ICES Advice 2008, Book 8

Fishing fleet reduction programme in Poland

According to the objectives set out in 2004 by the government the Polish fishing fleet had to be reduced by 30–40%, which is about 120 fishing vessels at approximately 10 000 GT, a power of 30 000 kW, with a capacity of approximately 25 000 tons of fish.⁷ The funding secured for this was 110 million euro, with a contribution of 80.1 million euro from the FIG. Funds for the reduction of fishing capacity comprised the largest portion of proposed expenditures within the framework of the sectoral policy (about 40%).

⁷ Sectoral Operational Programme Fisheries and fish processing 2004-2006, and Programme complement, Ministry of Agriculture and Rural Development, Warsaw 2004.

The remaining funds of the structural budget were earmarked for the renewal and modernization of the fishing fleet (24 million euro – 2%), the protection and development of aquatic resources, aquaculture, the modernization of fishing port facilities, processing and marketing, inland fishing (77 million euro), and other measures (66 million euro primarily for financial assistance for fishers who lost their jobs as a result of the withdrawal of part of the fleet).

The changes in the Polish fishing fleet observed in the 2004–2008 period were the direct consequence of the realization of the fleet reduction programme through the scrapping of vessels.

The Polish government took the position of not imposing too many conditions on the availability of funds for the decommissioning of the fishing fleet. Eligibility for the available funding was determined by just a few basic criteria required by EU (Council Regulation No. 2792/1999). Firstly, the only vessels eligible were those which had spent at least 75 days fishing at sea in the two 12-month periods preceding the submission date of the application for the permanent withdrawal of the vessel. Secondly, vessel owners could not scrap vessels that were under 10 years old. In the eventuality of too many fishers wanting to participate in the fishing capacity reduction programme, those fishing in the Baltic Sea were given priority. One of the criteria taken into consideration during the selection process was the period in which the fisher had been active in fisheries. Priority for financial compensation was given to those who had been active in marine fisheries for the longest period. The last selection criteria was the length of the period in which the fisher had owned the vessel; priority in the vessel scrapping programme was given to those applicants who had owned their vessels for the longest period of time. However, because of the large amount of funding available, virtually all vessels that met two basic criteria (number of fishing days and vessel age) were approved to participate in the programme. In retrospect, these principles were insufficiently formulated. Indeed it did permit achieving the desired fleet reduction (limiting GT) in a timely manner, but it did not target the group of vessels whose overcapacity was particularly significant (*i.e.*, the demersal fleet).

The decision to participate in the programme was solely that of the fishing vessel owners. The incentive to leave the fisheries was very high rate of compensation offered for withdrawing vessels. The rate depended on vessel size (tonnage) and age, and ranged from approximately PLN 30 000 PLN (7 500 euro) to more than PLN 3 million (750 000 euro). These rates, which were determined based on the maximum rates allowed by the EC, were decidedly in excess of the market rates and the insurance values of the fishing vessels at the time.

Table 4. Example of compensation rates for common types of Baltic fishing vessels participating in the fishing capacity reduction programme

Vessel type	Length	GT	Age	Premium (Euro)	Euro/GT
B-410 (stern trawler)	25.8	136	25	500 000	3 676
B-25sA (side trawler)	24.5	95	30	437 500	4 605
K-15 (netter)	17.8	35	45	210 000	6 000
fishing boats <15m	10	5	15	67 500	13 500

Exchange rate applied: 1EUR=4PLN

Because the procedure for obtaining assistance was relatively easy, the fishing capacity was reduced rapidly. During just several months in 2004, 180 applications for vessel scrapping were submitted, and in 2005 additional 260 applications were filed. The great interest generated by the programme resulted in the funds available being depleted by March 2006. By the end of 2008, a total of 512 applications for the fishing capacity reduction programme at a combined total of 110 million euro had been filed.

As a result of the fishing capacity reduction programme, 437 fishing vessels conducting catches in the Baltic Sea with a power of 59 thousand kW and tonnage of 17.5 thousand GT had been removed from the vessel register by the end of 2008.⁸ This was equivalent to 34% of the number of vessels,

⁸ In addition to vessel scrapping, the sectoral programme also provided the possibility of transferring the vessel to a third country or

43% of the power, and 47% of the tonnage of Baltic vessels registered on the day of Poland's accession to the EU.

This historically unprecedented reduction in the fishing capacity of the Polish Baltic fleet was the largest programme of its kind conducted in recent years among the countries fishing in the Baltic Sea as well as in the EU. It should be borne in mind, however, that until accession to the EU, Poland had not implemented any national programmes to reduce fishing capacity. The only measures for managing fishing capacity were legal restrictions on the maximum number of vessels in given categories and fishing grounds. This is why, despite distinct changes in catch limits and catch size, fleet capacity did not change for many years. The fishing capacity of the Baltic fleet (calculated in GT) before Polish accession to the EU was comparable that of the fleet in 1980, but catches were nearly 40% lower.

The oldest and largest vessels that were the most costly to maintain decided to surrender the first. This category comprised side trawlers (type B-25) over 30 years of age that specialized in cod catches, and their number decreased by over 70%. The other segment of vessels in the most numerous and oldest (over 45 years) group of 16-18 meter cutters specializing in cod and salmon catches using passive gears also decreased distinctly. In the 2004–2008 period, over 40% of the initial number of these cutters were withdrawn from the fisheries. The withdrawal of one of the youngest segments of vessel specializing in pelagic catches was not expected, but the number of these vessels had decreased by about one-third (25 vessels).

Table 5. Changes in the Polish Baltic fishing fleet in 2004–2008

Vessel length	2004-05-01			2008-05-01			2008/2004		
	no	GT	age	no	GT	age	no	GT	age
<12 m	805	3 744	20.9	592	2 838	23.4	-26%	-24%	12%
12-14.9 m	58	1 285	24.2	53	1 215	26.7	-9%	-5%	10%
15-17.9 m	169	6 074	45.1	91	3 258	49.3	-46%	-46%	9%
18-19.9 m	35	1 627	40.3	20	968	43.4	-43%	-41%	8%
20-22.9 m	31	2 340	23.7	17	1 239	28.6	-45%	-47%	20%
23-24.9 m	85	8 102	34.2	23	2 250	36.7	-73%	-72%	7%
25-25.9 m	47	6 490	25.4	25	3 404	29.9	-47%	-48%	18%
> 26 m	44	7 358	26.2	34	5 899	28.5	-23%	-20%	9%
Total	1274	37 020	26.1	855	21 071	27.7	-33%	-43%	6%

Source: Based on data obtained from the Register of Fishing Vessels, Ministry of Agriculture and Rural Development, 2009.

The primary goal of the fishing fleet reduction programme was to establish sustainable equilibrium between fish resources and fishing capacity. Too many fishing vessels led to the over-exploitation of marine living resources and marginally profitable catches. Thus, drawing into line the fishing capacity with available resources should lead to increased economic efficiency in catches while simultaneously providing stability to fishing vessel owners who remain active in the fisheries.

The economic performance of the Polish vessels fishing the Baltic Sea in 2007 improved substantially in comparison to that in 2004. While the profitability indicator in 2004 was approximately 2%, by 2007 it had increased to over 20%. This was the result of significant increase (of about 30%) in the income of individual fishing vessels, while the costs per vessel remained nearly stable. The prices of fish (principally of cod and salmonids) increased following Poland's accession to the EU, and this contributed to the improved performance. Subsidies provided to fishers for the temporary cessation of fishing, which had not previously been available, also contributed to increased income.

permanently reassigning fishing vessels for non-profit purposes other than fishing.. Approximately 60 projects for transferring vessels to third countries or reassigning vessel purpose to something other than fishing have been realized.

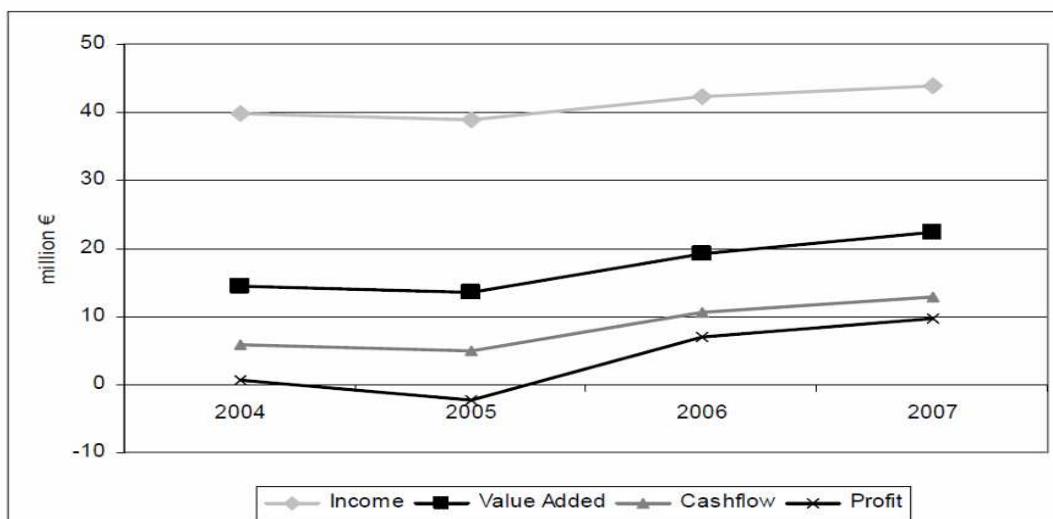


Fig. 7. Economic performance of the Polish fleet

Source: The 2008 annual economic report on the EU fishing fleet (SGECA 09-01) Ispra, 9–13 March 2009

The most important factor contributing to improved economic performance was the increase in individual catch limits (mainly of cod – the most important species economically). The withdrawal of a substantial number of vessels with cod quotas permitted increasing the individual quotas for this species in subsequent years of the programme even as the total allowable catches (TAC) were lowered. Although the 2007 TAC for cod was lower than that of 2004 (by 12%), the individual limits assigned to cutters increased on average by nearly 60%.

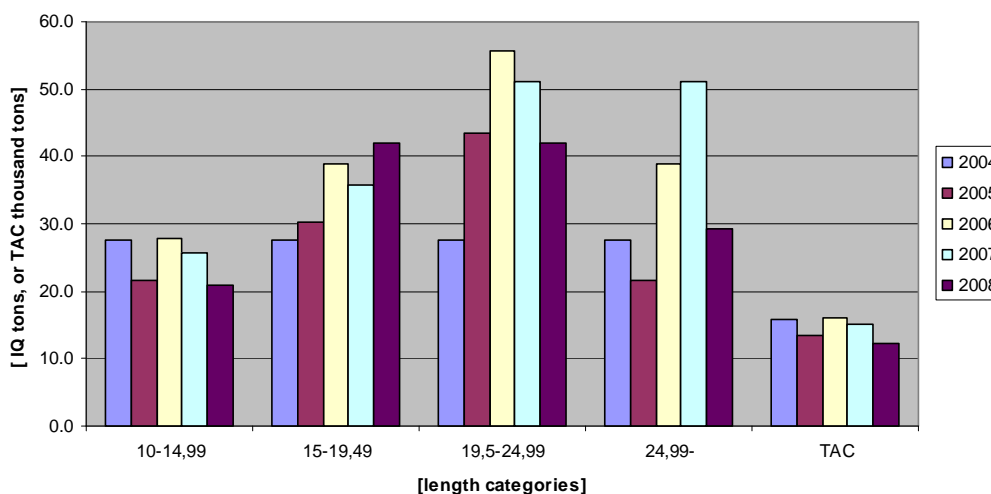


Fig. 8. Average cod catch limits for Baltic vessels (length categories) and Polish cod TAC, 2004–2008.

Source: own calculation based on EU and national TAC regulations.

One of the negative aspects of the fleet restructuring programme was the loss of jobs in the fisheries. By the end of 2008, 1 500 compensation premiums had been paid for jobs lost as a consequence of the implementation of the fleet restructuring program. This figure comprises approximately 40% of the total number of those employed in the Baltic fleet in 2004.

A positive consequence of the fleet reduction programme was the reduction in fishing effort (number of days at sea) that has accompanied the decreasing number of fishing vessels. In addition to improving profitability, lowering fishing pressure was one of the principle goals of the fleet reduction

programme in Poland. In 2008, the number of fishing days of the Baltic fleet was less than half of that of 2004. The reduction in fishing effort was as much the result of the multi-annual plan for the cod stocks as it was that of the vessel scrapping programme. The table below presents the impact the fishing fleet reduction programme had on the reduction of fishing effort in particular vessel segments. The greatest reduction in fishing effort of 70% was achieved in the 24–40 m DTS (demersal trawlers) segment that targeted mainly cod. Similarly, decreases were noted in the fishing effort of vessels from the 12–24 m DTS segment, which also targeted cod.

Almost 40% reduction in the fishing effort of the 24–40 m PTS (pelagic trawlers) segment, which targets sprat and herring, was clearly a negative result of the programme, since TAC for these two species have not been fully utilize for many years (mainly due to insufficient capacity and low demand).

Table 6. Fishing effort of the Polish Baltic fleet in 2004 and days at sea of vessels withdrawn with public assistance

SEGMENT	A	B	B/A
	2004	2004-2008*	
00-12 m PG	84 907	25 225	30%
12-24 m DFN	13 130	4 773	36%
12-24 m DTS	16 105	7 286	45%
12-24 m HOK	1 405	88	6%
24-40 m DTS	11 988	8 429	70%
24-40 m PTS	12 536	4 778	38%
Total	140 071	50 579	36%

*Fishing days (in 2004) of vessels withdrawn with public assistance in the 2004–2008 period

Source: own calculation based on administrative logbook data.

Bearing in mind the crisis situation in the cod fishery of the Baltic Sea, the main result of fishing fleet reduction should be reduced fishing effort targeting this species. The fleet reduction programme did eliminate a substantial portion of the effort targeting this fish (about 38% in comparison to that in 2004); however, the necessity of closing this fishery in mid 2007 and 2008 and the temporary elimination of two-thirds of the cod vessels in 2009 indicate that this reduction was still insufficient. On the other side, public assistance helped to reduce the fishing effort of herring by close to 40% of that in 2004. A similar, large reduction (of 31%) in the fishing effort targeting sprat was also achieved.

The fishing fleet restructuring programme did not deliver the anticipated improvement in the overall technical state of the fleet. The mean age of the Baltic fleet in May 2008 (27.5 years) remained basically unchanged in comparison to that of May 2004 (26 years). When the fishing boats, which are decidedly younger than cutters, are not taken into consideration, then the age of the latter was 40 years in May 2008 in comparison to 36.5 years in May 2004.

Changes in the size of catches were an immediate consequence of changes in the capacity of the fishing fleet. In the 2004–2005 period, Polish catches of Baltic fish decreased by 30%. This was most notable in cutter fisheries (vessels over 15 m in length). Landings from this group decreased in the 2004–2007 period by over 30%. Coastal fisheries decrease was less apparent (-16%).

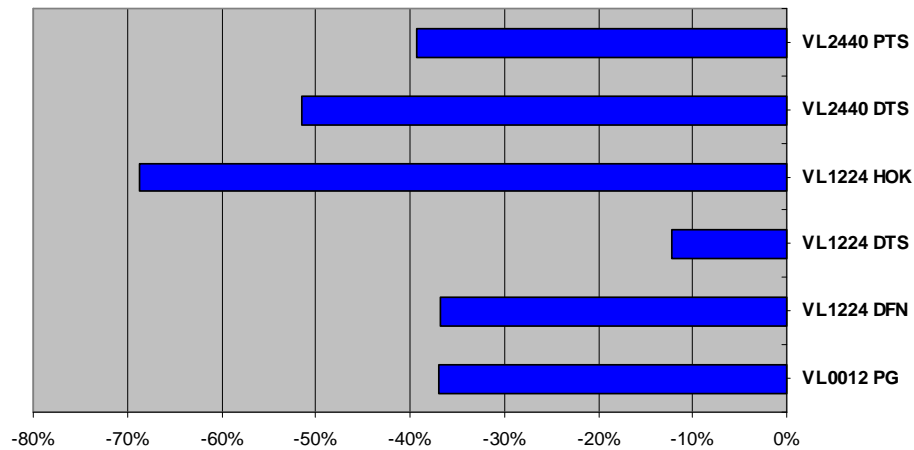


Fig. 9. Decrease in Polish Baltic catches by fleet segments, 2004–2008

Source: own calculation based on administrative logbook data.

Reductions in the fishing fleet had a varied impact on different landing sites and ports. The plan for reducing the fishing fleet did not have regional goals; as a consequence there was quite random reduction of the fleet at various ports and landing sites. The fishing fleets in 4 ports were reduced by more than 75%, while at 12 landing sites and ports the fleet decreased by 50–75%. From 25 to 50% of the fishing fleet was withdrawn at 26 landing sites and ports, while reductions of less than 25% were noted at 27 landing sites. Landings in particular ports decreased following the decreasing number of vessels. This was yet another factor that negatively impacted the regional importance of fisheries.

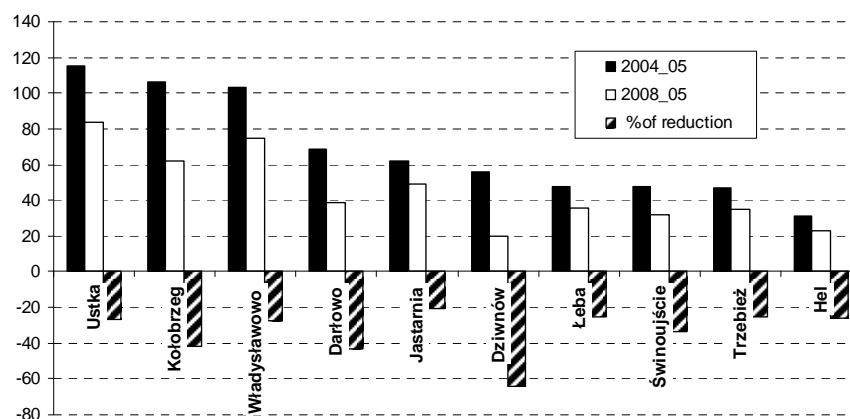


Fig. 10. Changes in the number of fishing vessels registered in major ports during the May 2004–2008 period

Source: Polish Fishing Vessel Register, 2009.

Fishing fleet reduction programme in Lithuania

The main goal of the fishing fleet related actions was to adjust fishing effort to available fish resources and create a modern and competitive, more cost-efficient fisheries⁹. It was planned to reduce Baltic fleet capacity by 10% (2000 GT or 3600 kW). Simultaneously modernization of 8 vessels, creation of 15 working places and increasing use of fishing quota in the Baltic Sea by 10% were envisaged.

⁹ Single Programming Document of Lithuania for 2004–2006, Ministry of Finance of the Republic of Lithuania, Vilnius, 2004.

Scrapping of the vessels was the most popular actions in 2004–2006 programming period. 68% of FIGG and national support was used for permanent cessation of fishing activity, 14% – for development and modernization of aquaculture and 10% – for construction and development of port facilities. About 80% of funding was allocated to the sea fishery sector (see fig. 11).

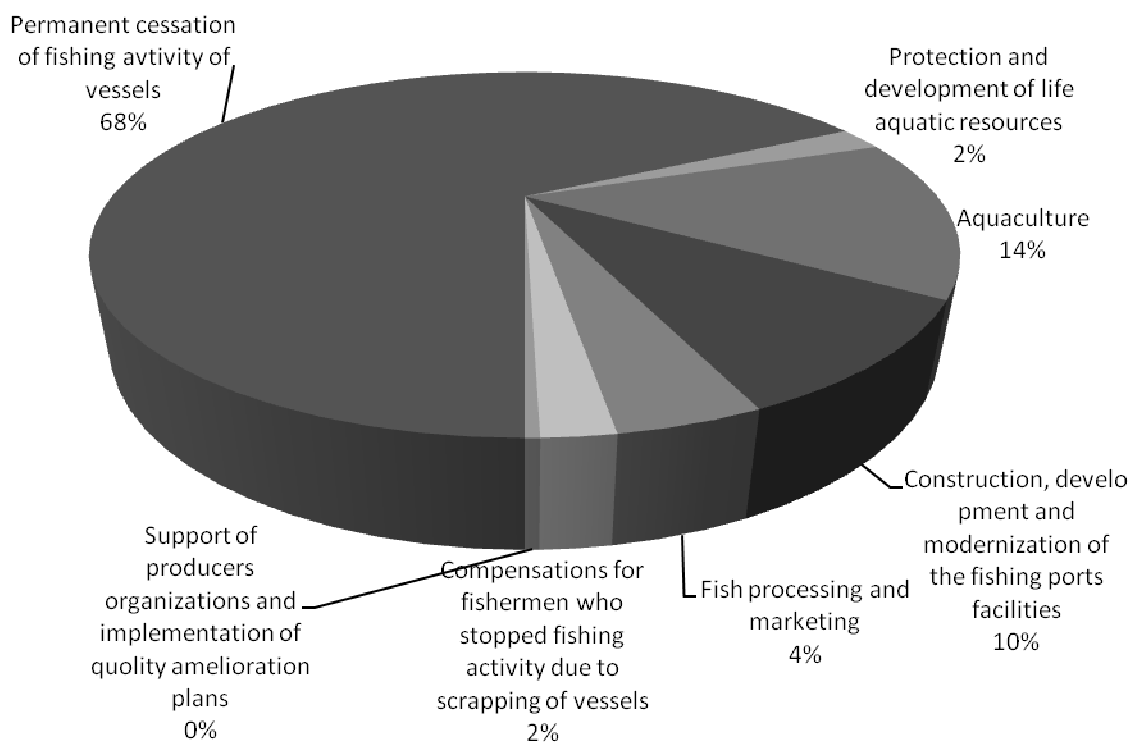


Fig. 11. Distribution of support under the FIGG by sphere of action in Lithuania in 2004–2006

Data source: Lithuanian Ministry of Agriculture; calculated by author

The capacity reduction programme was directed at vessels operating on the Baltic Sea (offshore and coastal waters). Those who were interested in decommissioning programme could voluntarily reply for one of 3 governmental calls for scrapping announced in 2004, 2005 and 2007. Fisheries administration facilitated as much as possible the participation and decided to apply only basic rules required by 2792/1999 Council Regulation (minimum activity level and age). Premiums were also set on maximum allowed by the Commission level, without any additional restrictions e.g. the real market or insurance value of the vessels. The premiums paid fluctuated from 112.4 thousand euro at minimum to 588 thousand euro at maximum and the average amounted to 341.3 thousand euro.

Table 7. Example of compensation rates for common types of Baltic fishing vessels participating in the fishing capacity reduction programme

Vessel type	Length	GT	Age	Premium (EUR)	EUR/GT
KL 143 (netter)	25.2	74	35	305 350	4 126
KL 475 (trawler)	25.5	118	31	428 019	3 627
KL P 216 (coastal)	13	17	37	115 338	6 686

Data source: Lithuanian Ministry of Agriculture; calculated by author

Except of vessels decommissioning some modernization activities were also intended to support. They included investment for re-orientation of vessels to catch pelagic fish, improvement of sanitary fish storage conditions, navigation safety and improvement of work conditions¹⁰. Lithuanian vessels were built in the Soviet Union's shipyards and were rather old so these funds were especially

¹⁰ Single Programming Document of Lithuania for 2004–2006, Ministry of Finance of the Republic of Lithuania, Vilnius, 2004.

needed. However due to the restrictions imposed on structural funds after 2004 and tough implementation conditions none of fisherman received money for modernization of vessels.

In spite the objective was to reduce fishing capacity in the Baltic by 10%, actually capacity withdrawn exceeded 40%(!) (2990 GT or 5490 kW). This was the result of high compensation rates paid for surrendered vessels and light eligibility criteria established. Allocation of almost 6 times higher premiums than the average annual vessel's income caused that most of gill-netters were scrapped just during the first call for applications.

At the end of 2008 the Lithuanian fleet consisted of 221 vessels with tonnage of 50,400 GT and engine power of 59,800 kW (table 8). About 91% of tonnage (GT) and 79% of engine power (kW) belonged to big vessels segment (>40 m in length) fishing in the Atlantic and Pacific Oceans. The remaining vessels belonged to the open Baltic Sea segments (mostly >24 m in length) and coastal area fleet (mostly <12 m in length)¹¹.

The capacity of Lithuanian fleet has been significantly reduced after Lithuania accession to the EU. Total tonnage and engine power decreased by 33% and 23% respectively. The capacity of vessels of 12–24 m in length has been reduced by 77% (GT) and 69% (kW) while the capacity of vessels of 24–40 m in length – by 40% and 35% respectively. These changes can be almost entirely explained by the interventions of FIFG funds. Capacity reduction of high sea vessels (> 40 m length) been achieved without FIFG support, mostly by internal changes on companies level.

The average age of scrapped vessels was about 35 years. The newest vessel that has been scrapped was of 23 years, eldest – 51. As the vessels scrapped were rather old, the average age of vessels 12–24 m reduced by 2 years in 2004-2008, the average age of 24-40 m vessels increased about 1 year during 4 years period.

Table 8. Lithuanian fleet in 2004–2008

vessel length	2004				2008				2008/2004			
	No	GT	kW	avg. Age	No	GT	kW	avg. Age	No	GT	kW	avg. Age
<12m	197	323	4 458	19	169	271	3 849	23	-14%	-16%	-14%	17%
12-24m	16	521	1 623	36	6	122	501	34	-63%	-77%	-69%	-7%
24-40m	58	6 602	12 420	27	32	3 988	8 133	28	-45%	-40%	-35%	3%
>40m	22	68 041	59 136	26	14	46 019	47 271	30	-36%	-32%	-20%	16%
total	293	75 487	77 637	22	221	50 400	59 754	24	-25%	-33%	-23%	8%

Data source: European Fleet Register; calculated by the author.

Lithuanian vessels are usually fishing with trawls and gillnets in the open Baltic Sea. In 2004 38 vessels were fishing using demersal trawls and 19 vessels using drift and fixed nets in the open Baltic Sea, while in 2008 only 15 vessels continued fishing with demersal trawls and 2 with passive gears. On the other hand number of pelagic trawlers increased from 3 in 2005 to 7 in 2008.

It is interesting to know whether the capacity interventions had desired impact on Lithuanian economic effectiveness (what was one of the expected goal). In 2005-2006 cod was the most economically important species accounted for 70% of the total value of open Baltic landings. In 2007 it remained still important but produced only about 54% of the value. This was caused by fewer numbers of vessels engaged in fisheries but also by the development in small pelagic fishery. Sprat catches increased more than 3 times since 2004. Its share in the composition of Lithuania's fleet landings increased from 17.5% in 2005 to 31% in 2007 (fig. 13). This however can be rather explained by changes in available TAC. By looking at the period 2004-2007 a significant improvement can be observed in an economic performance of gill-netters of 24–40 m. This segment was reduced by 11 vessels in 2005 but output of the remaining vessels increased significantly due to higher individual cod quotas. On the other hand, in the same period effort had increased by only 10% what altogether produced better economic results.

¹¹ According to the national law Lithuanian fisheries in the Baltic Sea is divided into: open Baltic – Baltic Sea area deeper than 20 m; and coastal Baltic – area from coastline to 20 m depth isobath. Fishing licenses are provided for each region separately and usually vessels with a license to fish in the open Baltic Sea are not allowed to fish in the coastal area and vice versa.

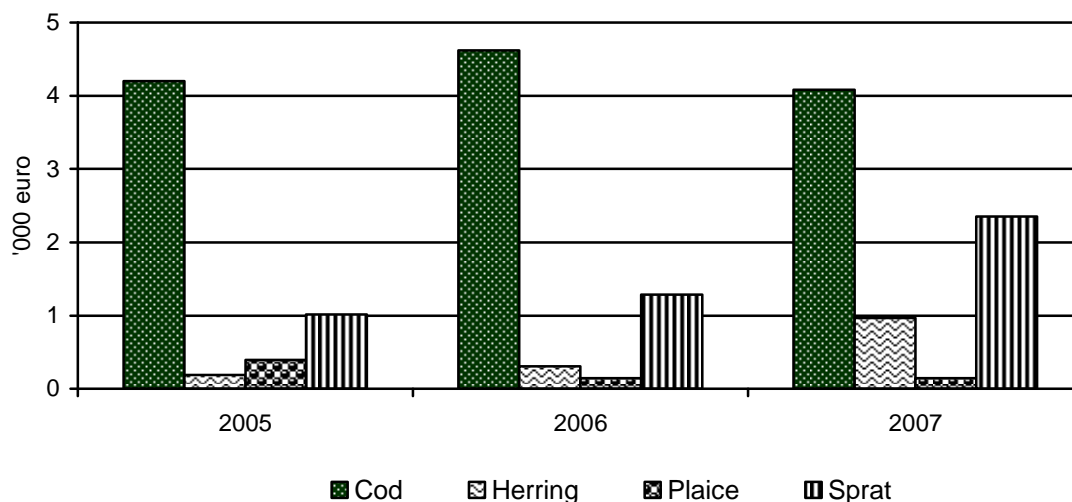


Fig.13. Value of landings from the open Baltic Sea in 2005–2007 (at 2007 price)

Source: Lithuanian fishing effort adjustment plan for 2008–2009, approved by the Minister of Agriculture of the Republic of Lithuania (order No. 3D-552 dated 15 October 2008)

The situation was quite different in case of demersal trawlers. Due to rapid costs growth the profitability of these vessels decreased between 2004 and 2007. What's interesting the crew costs per vessel in this group increased more than 4 times since 2004 (from 15.1 thousand euro in 2004 to 64 thousand euro in 2007). This can be partly explained by FIGG compensations payment rules. In order to get social compensation for job lost fishermen had to prove the fact that they had been working on the scrapped vessel. This obligation and expectations about further vessels scrapping programme may increased honesty of payments for the crew and consequently crew costs. However general increase of salaries in Lithuania after the accession to the EU should also be considered.

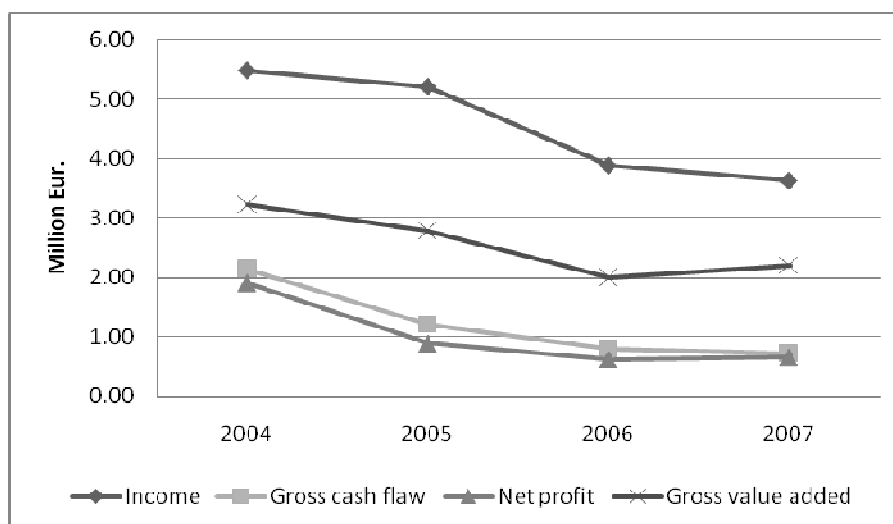


Fig. 14. Economic performance of Lithuanian Baltic Sea fleets in 2004–2007*

* except pelagic trawlers fishing in the Baltic Sea

Source: The 2008 Annual Economic Report on the EU fishing fleet (SGECA 09-01) Ispra, 9–13 March 2009

Reduction of cod fishing days in 2005–2007 caused that the average effort of demersal trawlers of 24–40 m decreased from 165 in 2004 to 93 in 2007, on the other hand productivity raised rather fast. Cod CPUE (Catch Per Unit of Effort) increased almost 3 times (from 379 kg per day in 2004 to 1034 kg in 2007). Capacity reduction programme resulted also in higher individual quotas available for the remaining vessels. In 2004–2007 the average cod quota per vessel increased almost twice, while TAC

decreased by 10% (from 3338 t to 2995 t). As a consequence the volume and value of cod in the composition of demersal trawlers landings increased respectively from 21% to 58% and from 69% to 93% between 2004 and 2007.

Lithuanian fleet consist of vessels that belong to fishing companies. Almost all enterprises fishing in the Baltic Sea has scrapped at least one vessel out of their fleets; however no one invested in the remaining fishing vessels. It is likely that most of the money was spend for private consumption. The decommissioning programme caused higher concentration of quotas in hands of individual users. Cod quota in Lithuania is allocated to a company and generally depends on the number of vessels belonging to fishing enterprise. Usually a company used to exploit one vessel, which use almost all quota provided for all enterprise fleet. What could be expected when remained with less vessels, but higher cod quota companies decided to reactivate their previously latent capacity.

Decommissioning programme has directly influenced fisheries labour market. The number of people employed in the Lithuanian Baltic fleet (gill-netters and demersal trawlers) decreased by almost 50% in 2004–2007. The National Paying Agency paid social compensations to 71 fisherman.

Discussion

The aims and rules of restructuring the fishing fleet using EU structural funding were independently defined by new member states. As demonstrated by the Polish and Lithuanian experience, the national fisheries administrations were not always best prepared for implementation the framework of the FIG.

The fundamental problem of Polish fisheries since the late 1980s has been the deteriorating condition of cod stocks, which has had a direct impact on the state of the fisheries sector. The lack of adequate funding meant that the problem of excessive fishing capacity was deferred. Consequently, it was necessary to make a drastic reduction in the fishing fleet at the moment of Poland's accession to the EU. Currently, it is apparent that this programme could better address the problem of overcapacity in demersal fleet and insufficient capacity in pelagic sector. Until 2002 the EU countries were managed centrally through the MAGP, which targeted specific segments of vessels to be restructured depending on the fish stocks exploited, the state of these resources, and the degree to which earlier tasks had been completed. The lack of this experience (no clear divisions into vessel segments) caused that the capacity reduction programme did not bring optimum effects. In consequence, the capacity of the Polish pelagic fleet was reduced unnecessarily. This led to the present inability of the fleet to fully exploit the Polish TAC for these species.

Taking above into considerations it would be prudent that the further capacity reduction programmes take into account the real involvement of a particular fleet in the fisheries, actually reduced tonnage (GT) does not always reduce real pressure on targeted stocks. The other issue that should be considered is the problem of less active vessels. It is always difficult to decide which vessels – latent or active fleet, the reduction should be targeted at. Removing of the most active vessels may lead to reactivation of latent capacity.¹² This was the outcome of Lithuanian capacity reduction programme. As in consequence fishing productivity and catches may increase there should be implemented mechanism that may prevent unwanted growth in fishing activity. In the Baltic Sea a multiannual plan for the cod stocks has implemented a foundation for establishing such fishing effort restrictions.¹³ Moreover the activity records of the surrendered vessel should be taken into account when paying compensation, less active vessels should be paid less than these which damage the resources the most.

¹² Lindebo, E. 2005. Role of subsidies In EU fleet capacity management. Marine Resource Economics, Vol. 20.

¹³ COUNCIL REGULATION (EC) No 1098/2007 of 18 September 2007 establishing a multiannual plan for the cod stocks in the Baltic Sea and the fisheries exploiting those stocks, amending Regulation (EEC) No 2847/93 and repealing Regulation (EC) No 779/97

Likely both Polish and Lithuanian programs could be realized at lower costs. Setting compensation rate at the maximum allowed by the EC level, without considering domestic economic realities led to increased capital investment costs and decreased capital flow. This, in turn, weakened the effectiveness of the invested capital while simultaneously inflating expectations regarding future compensation. In order to reduce fisherman “over-expectations” in the future, the premiums for scrapping has to be established taking into account the economic performance of fleets at the national level.

The fishing fleet restructuring programme did not deliver the anticipated improvement in the overall technical state of the fleet. Despite the age of surrendered vessels were usually higher than the remaining one but not enough to improve the average age of the fleet. In 2008 Polish Baltic fleet was 27 years old and was beside Swedish and Danish the oldest among Baltic countries. Lithuanian Baltic vessels were 24 years old, about two year older than in 2004. Neither in Poland nor in Lithuania vessel age was taken into account in decommissioning programme eligibility criteria. The possibility to modernize old vessels using FIFG support was also rather restricted for new MS.

Polish and Lithuanian capacity reduction programmes were not regionally directed. As a consequence there was quite random reduction of the fleet at various ports and landing sites. This caused that the fleet in some ports/regions almost completely disappeared and a long tradition of fisheries in these sites was terminated.

There are also positive effects of fleet reduction in the Baltic Sea area. The most important one is the reduction of cod mortality in the Eastern Baltic and the reduction of pressure on the resources. After a few decades of cod quota reduction, ICES for the first time proposed to increase the cod quota for the Eastern Baltic in 2008. The cod quota for 2009 in the region was increased by 15%. This would have a positive impact on economic condition of hundreds of the vessels dependant on this fish species in the Baltic Sea.

Capacity reduction programme should be treated as an interim step towards achievement of sustainable balance between capacity and available resources. Where there are no clearly defined property rights or other economic incentives excessive fleet capacity may arise again. ITQ system implemented recently in Danish pelagic and demersal fleet demonstrated that it can effectively prevent or solve overcapacity problem.¹⁴ In this respect the European Commission initiatives to make property rights be broader implemented in European fisheries should gather desirable attention among these countries still suffering excessive capacity in their fisheries.

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