

Status report for 2007 - Russian fishing of cod and haddock / transshipment at sea

1. Introduction

This is the sixth consecutive annual report prepared by The Directorate of Fisheries of calculations and estimates of the Russian catches of cod. Since 2005 the report also includes haddock. The information on which these analyses are based has been described in previous reports¹.

The 2006 report was revised following a review with representatives from the Russian authorities. Trips which had been incorrectly assigned to cod and haddock were eliminated, resulting in a reduction in the calculated quantities to 304,737 tons of cod and 73,131 tons of haddock. This gave an overfishing level of approximately 97,000 tons of cod and 19,500 tons of haddock. The comparisons presented in this analysis use these later figures.

The Russian authorities have also presented customs declarations for fish landed in Murmansk harbour which they consider documents the 79 trips in which we were not in agreement on species. The customs declarations indicate that trips that we have allocated to cod and haddock could in reality be other species. If we base the 2006 analysis on these custom declarations, the calculated Russian catches were 270,889 tons of cod and 63,143 tons of haddock, giving an overfishing of approximately 63,000 tons of cod and 9,500 tons of haddock.

Due to the uncertainty associated with these estimates we have decided, after a total evaluation, to use the average of both to arrive at a final estimate of the Russian catches of cod and of haddock in 2006. The total calculated Russian catches are therefore **287,813 tons of cod** and **68,137 tons of haddock**, giving an overfishing of approximately **80,000 tons of cod** and **14,500 tons of haddock** for 2006.

The new port state control, which is run by NEAFC, was introduced on 1 May 2007. This has provided us with a new analysis dimension. We now have a new reliable source of information for cases where we previously were not completely certain

¹ Available on The Directorate of Fisheries' web site; www.fiskeridir.no

whether cod or haddock had been transported. The calculations are based on all trips to Europe after 1 May which are registered in NEAFC's database. There are however some cases where quantity has not been registered in the NEAFC database. This can be documented via quantity information obtained by Norwegian inspectors and is included in the analysis. Inspections of Russian vessels have also shown that there are registered cases of cod and haddock being directly transported to other continents.

2. Activity

The quantity of cod and haddock landed in Norway is higher than landings made in 2006 (80,527 tons in 2006 as opposed to 85,360 tons in 2007). The increase in quantities landed in Norway which began in 2005 is therefore continuing.

There has been a significant reduction in the activity of transport vessel from The Barents Sea to the continent (from 204 to 117 trips). This decrease is reflected in an increase in the number of trips to Murmansk/ Arkhangelsk (from 109 to 197 trips). The reduction for fishing vessels is from 40 to 18 trips to the continent and from 116 to 46 trips to Murmansk/Arkhangelsk. This however indicates that the transshipment of fish intended for landing in Russia has probably increased.

Registered quantities lead us to conclude that The Netherlands is by far the largest recipient of Russian cod and haddock after Norway. A total of 68,477 tons of cod and 24,640 tons of haddock have been registered as landed in The Netherlands in 2007. No landings are registered in Spain/ Portugal and there has been a significant decline in direct landings to the United Kingdom.

3. Methodology

We have decided to continue using the calculation which the 2006 analysis conclusion was based on. We continue to use the assumption that all trips to the continent have a load capacity utilization which is equal to the trips that we do have complete information for. However, we have based calculation for trips to Russia on trips where we have full information and trips where we do not. Load capacities have been obtained from the 'Lloyds Register Fairplay' Internet page².

3.1 Classification

Each registered load is assessed and classified into one of three categories, category 0, 1 and 2. Category 0 is assigned where we believe our figures do not reflect real quantities, the quantity is too low or is only based on tracking information. Category 1 is assigned where we are uncertain whether the stated quantity is correct and category 2 is assigned where we are certain the quantity stated is correct.

Both transport and fishing vessels are assigned categories and this assignment is judgement based. This is based on registered quantities compared with the size of the vessel and the vessel's capacity utilization and transported species history. We have a history which extends back to 2001 for most vessels.

² The page is found at www.ships-register.com. The new load capacities do not represent a significant change in total quantities.

We have this year carried out a more comprehensive analysis of category 0 trips based on the fishing vessels transport vessels have been in contact with before setting course for Murmansk and the continent. Access to tracking data has allowed us to monitor the courses of Russian fishing vessels and to systematically³ register whether vessels are fishing for cod/ haddock, pelagic fish species or crab. Comparing this data with the Norwegian Coastguard's aircraft and vessel observations allows us to determine with a relatively high degree of certainty which species the fishing vessels have transhipped to transport vessels in each case.

Table 3: Comparison of the number of class 0, 1 and 2 trips (2006/2007)

	Third countries			RUS			Total		
	Cat. 1	Cat. 2	Cat. 3	Cat. 1	Cat. 2	Cat. 3	Cat. 1	Cat. 2	Cat. 3
Transport vessel	67/13	21/9	116/95	67/133	7/30	35/34	134/146	28/39	151/129
Fishing vessel	21/2	6/1	13/16	82/42	13/3	21/1	103/44	19/4	34/17
Total	88/15	27/10	129/111	149/175	20/33	56/35	237/190	47/43	185/146

Table 3 shows a clear decline in number of category 0 trips to the continent. Only trips before 1 May 2007 are classified as category 0 in this analysis. The same applies to category 1 trips. In total 379 trips were registered in 2007 as opposed to 469 in 2006. The decline is due to fewer trips to the continent (from 244 to 136 trips). There has also been a fall in the number of fishing vessel trips to Murmansk (from 116 to 46 trips). This is explained by an increase in the quantity of transshipment of fish intended to Murmansk/ Arkhangelsk, which is supported by the number of trips to Murmansk by transport vessels increasing by 90 trips.

3.2 Registered quantities

We have in 2007 managed to document in total 170,876 tons of cod and 59,818 tons of haddock. This represents a small decline in cod of approximately 7 000 tons. Haddock however has increased by 15,000 tons compared with 2006.

Table 4: Registered quantity by the destinations Norway, third country and Russia in 2007.

	Norway		Third country		Russia	
	Cod	Haddock	Cod	Haddock	Cod	Haddock
Transport vessel			74,094,000	26,614,000	7,945,000	3,765,000
Fishing vessel			3,165,000	1,506,000	312,740	124,427
Total	85,360,000	27,809,000	77,258,000	28,120,000	8,258,000	3,889,000

3.3 Calculated catches

Total estimated quantity is determined using a calculated quantity for each trip where registered quantities are not registered or where quantities are unrealistically low. Data from NEAFC has been used for landings in the EU and the Faeroe islands after 1 May and is therefore not based on calculations.

³ Operational analysis carried out by The Norwegian Coastguard

The analysis has been subdivided into four parts - cargo vessels and fishing vessels and the course set (the continent or Russia). The quantity itself is used for 3rd countries and Russia where the quantity has been registered in category 2.

Where NEAFC data is not available, the quantities for trips tracked to the continent use the average (in per cent) of all category 2 quantities for category 0 and 1 trips. This applies to both transport and fishing vessels. The quantities for transport trips to Russia have been calculated by using the average of category 1 and 2 trips for category 0 and 1 trips.

Table 7: Calculated catches of cod and haddock distributed between the destinations Norway, third country and Russia in 2007.

	Third country		Russia		TOTAL	
	Cod	Haddock	Cod	Haddock	Cod	Haddock
Transport vessel	95,071,000	34,369,000	38,838,000	19,002,000	133,909,000	53,686,356
Fishing vessel	4,791,000	2,418,000	2,986,000	1,367,000	7,777,000	3,786,000
Norway					85,360,000	27,809,000
Total					227,316,000	84,966,000

Table 7 shows calculated catches to be 227,316 tons of cod and 84,966 tons of haddock. The Russian quota of **187,500 tons of cod** and **64,250 tons of haddock** therefore indicates a potential overfishing of approximately **40,000 tons of cod** and approximately **21,000 tons of haddock**.

3.4 Development trends

We want in this point to look more closely at the trends that have taken place since analysis began in 2002 and the development trends of estimated overfishing and to through this make the data uncertainty trend more visible.

Figure 1: Estimated overfishing of cod from 2002 to 2007.

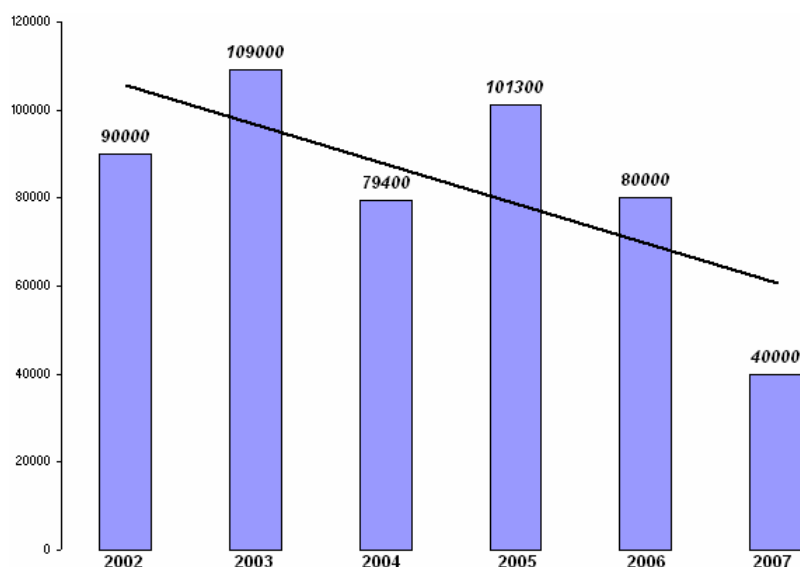


Figure 1 shows that the calculated Russian overfishing of cod has fallen in recent years. We should here emphasize that the Russian cod quota has varied during these

years from just below 190,000 in 2007 to just below 214,000 tons in 2005. Figure 2, below however shows overfishing as a percentage of the year's quota for each year. The same trend is shown.

Figure 2: Overfishing of cod as a percentage of quota from 2002 to 2007.

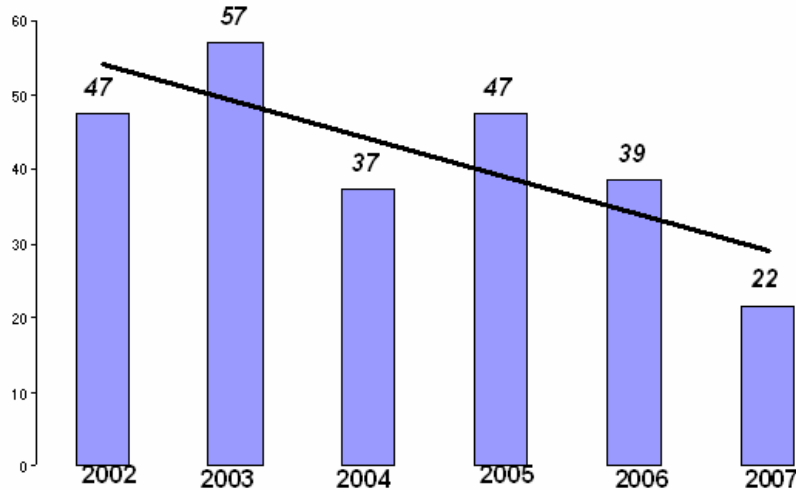


Figure 2 shows a positive development of overfishing as a percentage of the year's quota. The figure has fallen in 2007 to 22% overfishing, which represents a steady decline since 2002 and 2003, when calculated overfishing was 47% and 57% respectively.

2003 is however the year of greatest uncertainty with respect to access to documentation. Only 71,000 tons of cod were landed in Norway in 2003, as opposed to 123,000 tons in 2002. The intervening 52,000 tons of cod was most likely transported and landed in third countries. In 2003 the only source of information beyond landings in Norway was the documentation obtained by the Norwegian Coastguard. Data collection has improved in the subsequent years by The Directorate of Fisheries also allocating own resources to the inspection of Russian fishing and transport vessels on the continent and by landing figures also being increasingly provided from the EU.

Figure 3: Relationship between registered and calculated quantities of cod from 2002 to 2007 (in per cent).

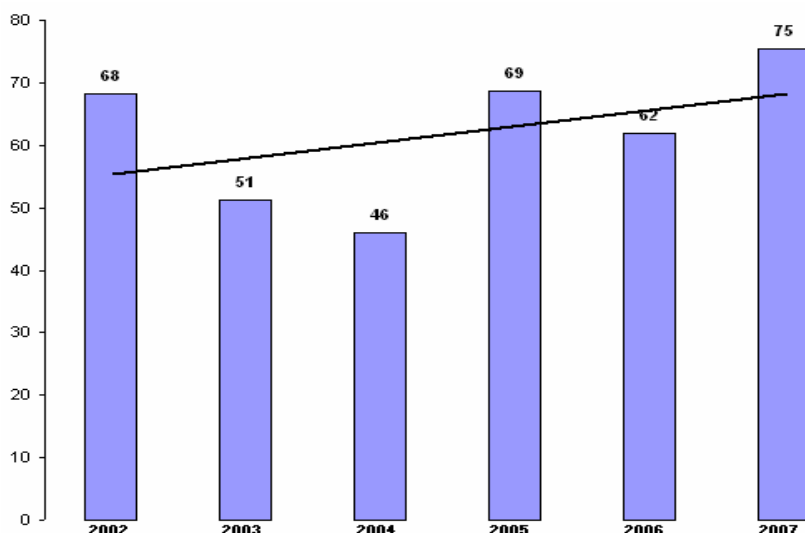
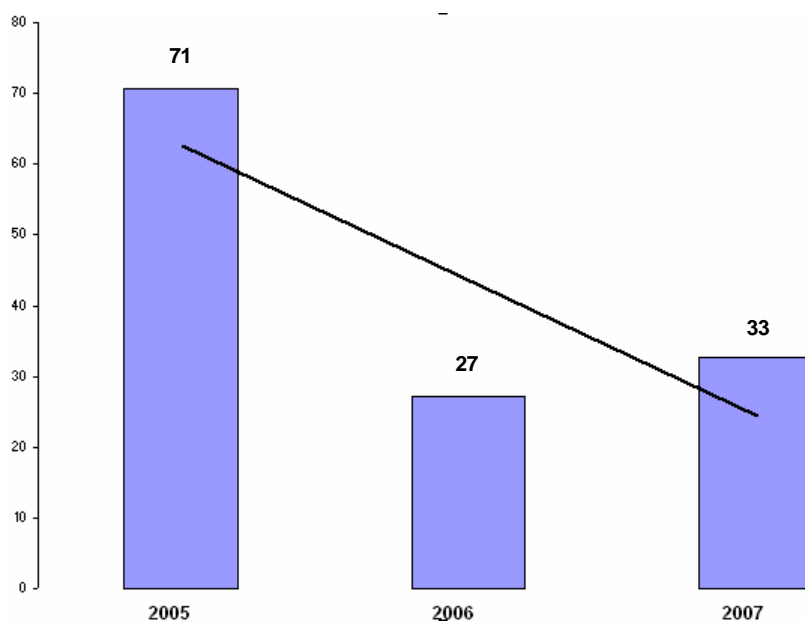


Figure 3 shows the relationship between registered quantities of cod obtained from inspections, landings in Norway and documentation received from the EU (after 1 May 2007 data from the NEAFC database) and calculated quantities. The figure shows that the analyses are increasingly based on documented quantities. 75 per cent of the calculated total catch of cod in 2007 is based on registered quantities.

Figure 4: Calculated overfishing of haddock (as a percentage of total quota) from 2005 to 2007.



We have only analysed from 2005 onwards for haddock. The figures show a reduction in calculated overfishing from 71% to 33% from 2005 to 2007. The 2007 estimate is mainly based on registered quantities (71%).

4. Conclusion

Russian overfishing of cod and haddock is still taking place. However the level of overfishing of cod in 2007 is lower than it was in 2006, but for haddock the overfishing level was a little higher. The reduction in overfishing of cod is supported by a decline in the

number of trips to the continent (from 244 to 136). Calculated catches are 227,316 tons of cod and 84,966 tons of haddock. Based on a Russian quota of **187,500 tons of cod** and **64,250 tons of haddock** it indicates a potential overfishing of approximately **40,000 tons of cod** and approximately **21,000 tons of haddock**

There was a large increase in the number of trips to Murmansk/ Arkhangelsk in 2007 compared with 2006. We do not have any documentation for a large proportion of these trips and here the level of hidden statistics can be high.

The increase in the access to information has however contributed to a reduction in the uncertainty of catch estimates over time. The 2007 estimates are based on higher proportions of registered quantities, 75% for cod and 71% for haddock. This is due to more reliable data from NEAFC and an increase in landings in Norway.