

# Skimming the Cream

**Norway can realize a substantial reduction in carbon dioxide emissions in the fishing fleet through changes to the current subsidy regime for fuel and emissions for fishing vessels**

In Norway the tax system for fossil fuels is a 'green' tax and encompasses most petroleum products through the petrol tax and the tax on mineral oil. Both these taxes have a carbon dioxide (CO<sub>2</sub>) element. In May 1988, the Norwegian Parliament (the Storting) resolved that fishermen should be exempted from paying the basic tax on mineral oil (diesel). The exemption covers the CO<sub>2</sub> tax and the basic tax on mineral oil that is supplied for use on board the fishing and hunting vessels listed in the vessel register.

The fishing fleet's emissions are not insignificant and have increased per catch unit. The Norwegian government's climate report contains a special chapter on the fisheries sector. It shows that CO<sub>2</sub> emissions from the Norwegian fishing fleet have been between 1.2 mn and 1.5 mn tonnes during the past 25 years. The fishing fleet is thus responsible for 2.5 per cent of Norway's CO<sub>2</sub> emissions.

The fishing fleet is exempt from the basic tax and the CO<sub>2</sub> tax on mineral oil through the establishment of a special reimbursement scheme administrated by the Guarantee Fund for Fishermen. The scheme allows Norwegian fishing vessels and foreign fishing vessels that refuel in Norway and fish in the Norwegian zone to apply for reimbursement in line with fixed rates of the tax they have paid when refuelling. The rate for reimbursement corresponds to the actual tax, and for 2007, per litre it was 96.9 øre (the one-hundredth subdivision of the Norwegian kroner (NOK); currently, NOK1 = US\$0.2), of which the basic tax amounts to 42.9 øre and the CO<sub>2</sub> tax to 54 øre. Norway is not the only country that subsidizes fuel for its fishing fleet.

The table below is sampled from a 2006 study from the University of British Columbia.

**Table:** Estimates of fuel subsidies/fuel tax exemption

Country	US\$/litre
Denmark	-
France	0.14
Germany	-
Greece	0.20
Iceland	0.18
Norway	0.18
Poland	0.18
Portugal	-
Spain	0.10
Turkey	0.09
England	-
Canada	0.18
Japan	0.25
New Zealand	-
Russia	0.18
Senegal	0.22
Thailand	0.13
US	0.06

Source: Sumaila et al., 2006

The overview is accurate for Norway—US\$0.18 corresponds to the more than 90 øre Norway has granted in tax exemption during the past few years. In 2008, the Norwegian taxes have been increased to 139 øre per litre. The Norwegian subsidy for the fishing fleet is thus US\$0.25, and therefore the highest in the world, alongside Japan.

Differences in fuel consumption between the different fleet groups—and thereby the scope of the fuel subsidy—are interesting since there is a constant debate on the distribution of

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A 12-m long vessel, which is part of Norway's coastal fleet

Halstensen, Chairman of the Norwegian Fishing Vessel Owners Association, said, "The fisheries business is a subsidy-free business and wishes to remain so. In addition, the Norwegian Fishing Vessel Owners Association does not want the business to be given any special treatment. On the contrary, at the top of the Association's wish list is the message to the powers-that-be that they must treat the fishing fleet in line with other businesses."

According to a brochure published jointly by the Ministry of Fish, the Norwegian Fishermen's Association and the Norwegian Seafood Federation, "In recent years the Norwegian fisheries business has shown an incredible development. It has become subsidy-free, the profitability in part of the fleet has improved, and the fisheries sector is regarded as a business with a considerable value creation potential." And Report No. 20 (2002-2003) to the Storting states: "The Norwegian fisheries business is currently almost subsidy-free and stands for considerable value creation in Norwegian society."

As mentioned above, this is not correct. The fishing fleet is subsidized through exemptions from the basic and CO<sub>2</sub> taxes on fuel. The two taxes vary somewhat from year to year, but during the past few years, they have together amounted to approximately 95 øre per litre of fuel, and have approached NOK1 per kg of fish. Fishermen have these taxes reimbursed through the Guarantee Fund for Fishermen with an interest compensation of three per cent. The total amount paid out in 2005 was NOK254 mn.

The subsidies have two effects that we will examine more closely. In the first place, energy consumption and CO<sub>2</sub> emissions are subsidized. In the second place, these subsidies are unequally distributed among different fisheries and fishermen and, therefore, appear to distort competition. Since the different fleet groups have different fuel consumption per tonne of catch, the subsidies are also distributed unevenly. In the smallest coastal fleet in the period 2003-2006, the subsidy amounted to NOK162 per tonne of cleaned and headed fish. Fresh-fish trawlers had their fish subsidized by

the quotas among these fleet groups. They thus compete against each other on investments, crews and rights. Our calculations for 2003-2006 show that the trawling fleet consumes most fuel per kilogramme of cod taken. Small coastal fishing vessels are more than five times more fuel-efficient.

The figures also show a decline in fuel consumption per cod in all fleet groups. There can be grounds to assume that the generally increasing fuel prices have affected the fleet's operating pattern. As an example, in 2006 shrimp trawlers spent 39 per cent

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of their catch income on fuel, while fuel tax amounted to less than 20 per cent for vessels in the bottom-trawling cod fishery. Higher fuel prices will cause shifts in profitability among the various fisheries and a change from shrimp fishing to cod fishing.

The fisheries organizations and the authorities like to give the impression that the fisheries sector receives no subsidies. For example, Inge

NOK898 per tonne, that is, for each kg of cod they deliver, the trawlers receive 75 øre more in support from the State than small fishing boats.

There is also reason to note the difference between the subsidies in fleet groups that compete more directly with each other for labour and, to some extent, also for quotas. The big coastal fleet is given subsidies that are twice as large per tonne of fish than those granted to the smallest coastal fleet, and the trawlers receive around 40 per cent more than seagoing vessels with conventional gear (autoline).

The coastal fleet employs more crew per tonne of catch and has a lower consumption of energy per tonne of catch. The result is that the subsidies per man-year in the trawling fleet are many times higher than those in the coastal fleet. The subsidies per man/man-year in the two smallest coastal-fleet groups amounted to between NOK4,500 and NOK8,800 per year in the period 2003 to 2006. In the seagoing trawling fleet, the subsidies are between NOK95,000 and NOK170,000 per man-year, and between NOK55,000 and NOK95,000 per employee in the same period.

The number of small vessels has been substantially reduced in the past few years through natural wastage and through the structure fund, a fund intended to adapt the capacity of the fishing fleet and to promote the necessary structuring of the various vessel groups. From 1995 to 2006, the number of vessels under 15 m in length has been almost halved, while the number of coastal vessels over 21 m has increased by 45 per cent. These are vessel groups that compete with each other for crew and fishing grounds. In 2006, a man-year in the Danish seine fleet received more than four times as much in subsidies as a man-year in the fleet of boats under 10 m.

### Tax-free fuel

If we now look at the seagoing fleet, the discrepancies are much greater. Each man-year in the trawling fleet is supported by between NOK100,000 and NOK170,000 in the form of tax-free fuel. This amounts to between a quarter and a third of the share in these fleet groups. The same can be

seen in the relationship between sea and coast in the pelagic sector. Each man-year in coastal seine fishing is subsidized by between NOK15,000 and NOK30,000, while in the seagoing fleet, the subsidies are between NOK80,000 and NOK240,000.

Fuel subsidies are unequally distributed among the shipowners. In 2006, a one-man enterprise with a

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9-m fishing boat received a subsidy of NOK6,400, while the trawler owners receive more than NOK2 mn per vessel. As a percentage of operating revenues, this amounts to less than one per cent for the fishing boat, while for the trawlers, it is between four and five per cent of the operating revenues.

In his speech to the the Board of the Norwegian Fishing Vessel Owners Association, the Chairman, Inge Halstensen, said, "The fisheries business is a subsidy-free business and wishes to remain so." Halstensen owns the three purse-seine vessels *Gardar* (75-m long), *Manon* (70-m) and *Slåtterøy* (67-m). According to the Norwegian fishermen's journal,

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Norwegian fishing vessel *Saga Sea*, a former pollock trawler, now fishing for krill

*Fiskaren*, in 2005, *Gardar* had a turnover of NOK119.1 mn. The average length for this fleet group was 68 m, and the average operating income was NOK50 mn. If Halstensen's three purse-seiners consume the average amount of fuel for his fleet group, his shipowner company received around NOK4.5 mn in subsidies in 2006—a decline from almost NOK6 mn in 2005. *Fiskaren* reports that *Gardar* is running at a loss, but if we still regard it as an average vessel, this NOK1.5 mn per vessel constitutes 14 per cent of the operating profit, a decline from 16 per cent in 2005.

When a fishing fleet is run on subsidized fuel, it means that the power used by the factories on board is also subsidized. One litre of diesel generates 10 kilowatt-hour (kWh) of energy. The tax exemption thus corresponds to approximately 10 øre per kWh. The factories and freezers on board the fishing fleet are in direct competition with the industry on shore, a fact that came to light in the summer of 2007 when Geir Ove Ystmark of the Norwegian Seafood Federation then asked the purse-seine boat *Gardar* to halt its purchase of seine-caught saithe in Andfjorden. "The fishing industry has the capacity to cope with the saithe that is fished," Ystmark points out. According to the President of the Norwegian Seafood Federation, there is no need at all for purchasing vessels to operate. He describes the activities of *Gardar* as "skimming the

cream off" the seasonal fisheries, and turns the rhetoric of Helga Pedersen, the Norwegian Minister of Fisheries and Coastal Affairs, on her: "It doesn't give us 'lights in the houses' in the rural districts when purse-seiners are permitted to buy seine-caught saithe in competition with the local fishing industry that operates year-round."

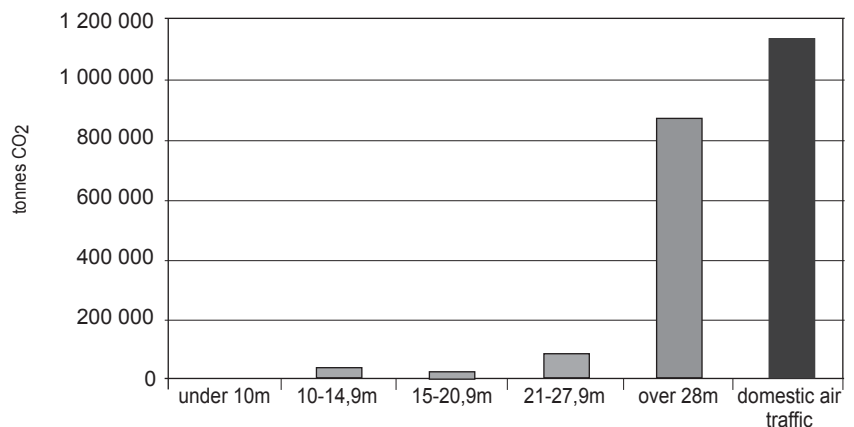
In addition to skimming the cream, the energy that is used is subsidized. The same logic also applies to other processing activities on board, which often take place in competition with the industry on shore. This applies not only to energy-consuming processes such as freezing, but also to other processing such as producing fillets in some parts of the trawling fleet. In 2008, the fishing fleet will be exempt from the basic tax and the CO<sub>2</sub> tax, which together amount to NOK1.39 (the basic tax is 84.5 øre and the CO<sub>2</sub> tax is 55 øre). In other words, the subsidies will increase by 40 per cent.

**Subsidies**

The figure below shows the assumed subsidy level in 2008. At the 2006 level of consumption, the subsidies will constitute around 1.4 per cent of the operating income for boats under 15 m, and between 5.8 per cent and 7.3 per cent of the operating income for trawlers.

The Norwegian government's climate report confirms that the fishing fleet is exempt from the CO<sub>2</sub> tax and

**Figure:** Emissions from different length groups in the year-round fishing fleet and from domestic air traffic



Source: Directorate of Fisheries' profitability survey on taxes for fuel for the individual fleet groups

the basic tax. The effect this subsidy may have is not discussed, and no justification is given for the scheme. The description of measures to reduce the emissions of greenhouse gases includes the following: “For several fleet groups, the reduction in fuel consumption can correspond to around 10-15 per cent with the correct use of an adjustable propeller. Both shrimp-freezing trawlers and cod trawlers can reduce fuel consumption by approximately 10 per cent with energy-efficient trawling. Other fleet groups, such as purse-seiners and seiners that fish saithe, herring and mackerel, can reduce their fuel consumption by 10–15 per cent by running at optimal speed.”

It is also mentioned that changes in fleet structure is the measure that could have the greatest effect, but this alternative has not been investigated: “A different fleet structure or a change in operating pattern and catch areas may well have a favourable effect on the emissions of greenhouse gases... but this should not necessarily be a governing consideration.”

The potential reductions are not quantified, and neither is there any mention of the fact that a continuous change in the opposite direction in fleet structure is taking place, partly through State-approved structural measures: from small, energy-efficient boats to vessels that are large and energy-consuming.

What is so strange about the inadequacies of the government’s climate report is that most of the measures that will produce a more climate-friendly fleet structure will also generate more jobs, better profitability and a more ecological taxation scheme. Since the potential returns from technical solutions are so small (10-20 per cent), while the returns from a change in operation pattern are so large (up to 80 per cent), there is reason to include in the estimates the fact that small shifts in resource distribution between small vessels with passive gear and large vessels with active gear will have a greater effect than extensive technical advances. Another point is that the changes that have taken place in the past few years have generated a

move from the most energy-efficient vessels to the most energy-consuming. This should indicate a reassessment of the subsidized fuel scheme.

According to the climate report, in its mitigation analysis the Norwegian Pollution Control Authority estimated the technical emission reduction potential for the fisheries sector in 2020 at 50,000 tonnes of CO<sub>2</sub> equivalents, which corresponds to a four per cent reduction, compared with today. The climate report also states: “The government assumes that part of the reduction potential will be released by means of current policy instruments. In addition, the government proposes the following measures:

Promoting and facilitating greater energy efficiency and technological advances in the fishing fleet, and

**...the potential emission reductions achieved through such measures—and particularly through removing fuel subsidies—can be up to 20 times higher than the estimates of Statistics Norway’s for the climate report.**

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reviewing the possibility of switching to alternative energy carriers.

Encouraging the inclusion of requirements for low CO<sub>2</sub> emissions when new investments are made in the fishing fleet.”

In this report, we have shown that the potential emission reductions achieved through such measures—and particularly through removing fuel subsidies—can be up to 20 times higher than the estimates of Statistics Norway (the Central Bureau of Statistics of the Norwegian government) for the climate report. Earlier, we mentioned that there are signs in the trawling fleet that the reaction to the higher fuel prices of recent years has been a move from fuel-demanding shrimp trawling to cod fishing.

#### **Similar trend**

If the calculations are correct, a similar trend can be seen for the fishing fleet as a whole. In parallel with a general increase in fuel prices, fuel consumption and thereby CO<sub>2</sub> emissions have already been reduced by 20 per cent, or more



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In the past few years Norway's coastal fleet has moved from the most energy-efficient vessels to the most energy-consuming vessels

hours and long trawling tracks, thereby also threatening stocks through undesired bycatches and overfishing. 3

than 200,000 tonnes of CO<sub>2</sub>, between 2003 and 2006.

A high oil price has a positive effect on the fishing fleet's willingness to reduce climate emissions. The policy of subsidizing fuel when the aim is to encourage operations that are based on fuel economy is hardly conducive to goal achievement.

An alternative to subsidizing fuel is to raise the special tax deduction for fishermen. An increase from the current permissible deduction of NOK80,000 to NOK120,000 will give the fishermen in the smallest coastal-fleet groups more or less the same benefits as those existing today. With a tax rate of 30 per cent, this will cost the State approximately NOK100 mn, which will be recouped by the termination of the fuel reimbursement scheme. A change of this type will encourage employment on board rather than fuel consumption, and will be more in line with the official targets for both the fisheries and the environmental policies.

The change will reduce the subsidies for several of the trawling fisheries and for some shipowner companies that are not operated in a sustainable manner. It will become unprofitable to use too much fuel on the harvesting of fish. This will also mean cuts in the distribution of subsidies to the fisheries enterprises that cause severe ecological harm to the sea bottom by their many trawling

#### For more



<http://www.icsf.net/icsf2006/ControllerServlet?handler=EXTERNALNEWS&code=getDetails&id=38031&userType=&fromPage=>

**High fuel costs prompt the European Commission to increase fisheries subsidies**

<http://www.icsf.net/icsf2006/ControllerServlet?handler=EXTERNALNEWS&code=getDetails&id=37818&userType=&fromPage=>

**EU fisheries ministers agree on aid package**