



Direct and indirect EU support for the members of the Pelagic Freezer-trawler Association (PFA)

A research paper prepared for Stichting Greenpeace Nederland

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Introduction

The objective of this research project is to provide an overview of the direct and indirect support from the European Union (EU) and the governments of the EU member states to the Pelagic Freezer-trawler Association (PFA), an association representing the interests of several European pelagic freezer-trawler companies. The members of the PFA are based in the UK, France, Germany, Lithuania, Ireland and the Netherlands, and are all subsidiaries of three Dutch companies: Parlevliet en Van der Plas, Cornelis Vrolijk/Jaczon and Willem van der Zwan en Zonen. The subsidiaries, as well as the pelagic (freezer) trawlers they own and the respective flag, are summarised in Table 1.

Table 1 The members of the PFA and their subsidiaries (as at end 2008)

Company	Subsidiary	Pelagic (freezer) trawler	Flag as at end 2008	Recent changes
P&P	Kilda BV ⁱ	KW 170 Annie Hillina	Dutch	German since end 2009
P&P	Fladen Gronden BV	KW 172 Dirk Diederik	Dutch	
P&P	Vikingbank BV	KW 174 Annelies Ilena	Dutch	
P&P	Ocean Food GmbH & Co. KG	BX 786 Atlantic Peace	German	
P&P	Doggerbank Seefischerei GmbH	BX 791 Jan Maria	German	
P&P	Westbank Hochseefischerei GmbH	ROS 171 Maartje Theadora	German	
P&P	Ostbank Hochseefischerei GmbH	ROS 784 Dirk Dirk (later KG14 Naeraberg, now KL843 Naeraberg)	German	Faroe Islands end 2009-11, Lithuanian since October 2011
P&P	Oderbank Hochseefischerei GmbH	ROS 785 Helen Mary	German	
P&P	Mecklenburger Hochseefischerei GmbH	ROS 786 Gerda Maria	German	
P&P	Atlantic High Sea Fishing Company UAB	KL 749 Margiris	Lithuanian	
P&P	Atlantic High Sea Fishing Company UAB	KL 759 Nida	Lithuanian	
P&P	Trønderbas AS	NT 500-V Tronderbas	Norwegian	
P&P	UK Fisheries Ltd	H 135 Farnella	UK	
P&P	UK Fisheries Ltd	H 771 Marbella	UK	
P&P	UK Fisheries Ltd	H 176 Arctic Warrior	UK	
CV/J	Cornelis Vrolijks Visserij Maatschappij Diepzee IV BV	SCH 81 Carolien	Dutch	
CV/J	Cornelis Vrolijks Visserij Maatschappij Diepzee II BV	SCH 72 Frank Bonefaas	Dutch	
CV/J	Jaczon Visserijmaatschappij Afrika BV	SCH 24 Afrika	Dutch	
CV/J	Jaczon Visserijmaatschappij Zeeland BV	SCH 123 Zeeland	Dutch	

ⁱ Since end 2009: Ostbank Hochseefischerei GmbH

Company	Subsidiary	Pelagic (freezer) trawler	Flag as at end 2008	Recent changes
CV/J	Jaczon Visserijmaatschappij Wiron BV	PH 110 Wiron 1	UK	
CV/J	Jaczon Visserijmaatschappij Wiron BV	PH 220 Wiron 2	UK	
CV/J	Jaczon Visserijmaatschappij Wiron BV	SCH 22 Wiron 5	Dutch	
CV/J	Jaczon Visserijmaatschappij Wiron BV	SCH 23 Wiron 6	Dutch	
CV/J	North Atlantic Fishing Co. Ltd	H 171 Cornelis Vrolijk Fzn	UK	
CV/J	Valiant Trawlers Ltd	H 90 Atlantic Princess	UK	
CV/J	France Pelagique S.a.r.l. and other subsidiaries	FC 716900 Prins Bernhard	French	
CV/J	France Pelagique S.a.r.l.	FC 716630 Scombrus	French	
CV/J	France Pelagique S.a.r.l. and other subsidiaries	FC 716999 Sandettie	French	
CV/J	Jaczon Visserijmaatschappij Johanna Maria BV (with Atlantic Dawn)	SO 117 Johanna Maria	Irish	Dutch since February 2011
WvdZ	W. Van der Zwan Zonen Visserij Maatschappij BV	SCH 6 Alida	Dutch	Belizean from May to August 2010
WvdZ	A.Z. Pelagic Fisheries BV (since recently: Pelagic Fishing Group SAC)	SCH 54 Franziska	Dutch	Peruvian since February 2011
WvdZ	W. Van der Zwan Zonen Visserij Maatschappij BV	SCH 303 Ariadne	Dutch	
WvdZ	A.Z. Ocean Fisheries II BV	SCH 333 Oceaan VII	Dutch	
WvdZ	A.Z. Ocean Pelagic Fisheries BV (since 2009: Afrex Fisheries)	SCH 302 Willem van der Zwan	Dutch	

Source: Profundo, "Dutch pelagic freezer trawler companies", *Profundo*, May 2011.

Direct support is a direct transfer of funds from the EU and the governments of the EU member states to fishing companies. Indirect support reduces the costs of fishing companies indirectly and also make the fishing sector more profitable than it would otherwise have been. This could even imply that without the support, fisheries companies would incur losses. The period researched is 1994-2010 for direct support and 2006-2011 for indirect support.

This research focuses on direct and indirect support for the pelagic (freezer) activities of the members of the PFA. Support provided to other activities of the PFA members was not researched. Regarding direct support, one exception is made, based on the availability of information from our recent report "The connection with French deep sea fisheries of Parlevliet en Van der Plas and Cornelis Vrolijk/Jaczon" dated October 2011. If direct support for the activities of French fishery companies Euronor (50% owned by Parlevliet en Van der Plas) and Armement Dhellemmes (91.5% owned by Cornelis Vrolijk/Jaczon) was found, this is also mentioned in this report. However, it will be clearly indicated that this support was not provided for the pelagic (freezer) activities of the PFA members.

This report is organised as follows: Chapter 1 provides an overview of the direct support received by the members of the PFA, including support from the Financial Instrument for Fisheries Guidance (FIFG), the European Fisheries Fund (EFF) and state aid. Chapter 2 provides an overview of the indirect support received by the members of the PFA, including benefits from the fishing licences they obtain through the Fisheries Partnership Agreements (FPAs) between the EU and Mauritania and Morocco and indirect fuel support. Chapter 3 presents a summary of the total amounts of direct and indirect support received by the members of the PFA. In this chapter, the amounts of support are compared to revenues and profits of the members of the PFA and to support that was provided to the EU fisheries sector as a whole.

Chapter 1 Direct EU support

1.1 Introduction

This chapter provides an overview of the direct support from the European Union (EU) and the governments of EU member states to the members of the Pelagic Freezer-trawler Association (PFA) since 1994. The most important financing instrument used by the EU and its member states to provide direct support to fishing companies since 1994 was the *Financial Instrument for Fisheries Guidance (FIFG)*, which was launched in 1994 to support the EU fisheries sector. In 2007 this instrument was replaced by the *European Fisheries Fund (EFF)*.¹

Another important form of direct support is state aid: assistance from national governments to companies engaged in economic commercial activity on a selective basis. De minimis aid, a special form of state aid, can provide a limited amount of aid to fishing companies and serves especially to compensate rising fuel prices.

This chapter is organised as follows: Paragraph 1.2 provides an overview of the support received by the members of the PFA under the FIFG. Paragraph 1.3 presents the support received under the EFF. Paragraph 1.4 describes other forms of support, including state aid.

1.2 Financial Instrument for Fisheries Guidance (FIFG)

1.2.1 Introduction

The Financial Instrument for Fisheries Guidance (FIFG), which was launched in 1994, was the EU's principal instrument to provide support to the fisheries sector until 2006. A first programming period ran from 1994 until 2000 and a second from 2000 until 2006. Funding measures of the FIFG included the permanent withdrawal of vessels, fleet renewal and modernisation, investment in aquaculture, and development of coastal waters, port facilities, processing and marketing.² The FIFG operated on a co-financing principle: the funding for each project must include support from the government of the member state concerned.³ According to data analysed by Fishsubsidy.org, the total amount spent under the FIFG was € 8.5 billion, of which € 3.4 billion was distributed to vessels and € 5.1 billion was distributed to non-vessel recipients.⁴

Members of the PFA have received support under the FIFG specifically for their vessels and for other purposes. Paragraph 1.2.2 provides an overview of the vessels owned by the members of the PFA which have received support from the FIFG, and paragraph 1.2.4 presents the support received for other purposes.

1.2.2 Support for vessels

Between 1994 and 2006, European fishing vessels received total support of € 3.4 billion under the FIFG. Of this amount, € 2.3 billion was supplied by the budget of the EU, while € 1.1 billion was supplied by member states. By far the largest amount (50% of the total) was received by Spanish vessels.⁵

Around € 1.6 billion (48%) was spent on building or modernising vessels, and € 1.4 billion (40%) was spent on scrapping vessels.⁶

Table 2 lists the support for vessels owned by the members of the PFA provided under the FIG, derived from the Fishsubsidy.org database. The table shows that the vessels of the members of the PFA have received support for a total amount of € 21.2 million during the lifetime of the instrument, of which € 20.0 million was received for the pelagic (freezer) trawlers of the members. Most of the support was provided for the modernisation of vessels. Vessels of Parlevliet en Van der Plas have received € 17.7 million (all received for pelagic trawlers), and vessels of Cornelis Vrolijk/Jaczon have received € 3.5 million (of which € 2.2 million was received for pelagic trawlers). No support was found for vessels of Willem van der Zwan en Zonen. The highest amount of support for a vessel received by the PFA members was the payment of € 6.2 million to construct the ROS 785 Helen Mary. This pelagic freezer trawler has been the vessel which has received the highest subsidy in the EU under all payments of the FIG.⁷

Most FIG support for PFA vessels was supplied by Germany (approximately € 17.6 million or 83% of the total amount for the PFA) and France (approximately € 3.5 million or 16% of the total amount for the PFA). These payments were provided on a co-financing basis, meaning that both the EU and the member states paid part of the amount.

Table 2 Support for PFA vessels under the FIG (1994-2006)

Vessel	Member state	Company	Year	Amount (€)	Used for
ROS 170 Annie Hillina	Germany*	Parlevliet en Van der Plas	1999	1,558,390	Modernisation
H 176 Arctic Warrior	UK	Parlevliet en Van der Plas	1998	3,227	Modernisation
BX 786 Atlantic Peace	Germany	Parlevliet en Van der Plas	1998	565,047	Modernisation
BX 786 Atlantic Peace	Germany	Parlevliet en Van der Plas	1999	137,430	Modernisation
ROS 784 Dirk Dirk (now KL 843 Naeraberg)	Germany	Parlevliet en Van der Plas	1996	2,291,580	Modernisation
ROS 784 Dirk Dirk (now KL 843 Naeraberg)	Germany	Parlevliet en Van der Plas	2002	1,879,680	Modernisation
ROS 786 Gerda Maria**	Germany	Parlevliet en Van der Plas	1997	197,391	Modernisation
ROS 786 Gerda Maria	Germany	Parlevliet en Van der Plas	1997	21,048	Modernisation
ROS 786 Gerda Maria	Germany	Parlevliet en Van der Plas	2001	1,207,680	Modernisation
ROS 785 Helen Mary	Germany	Parlevliet en Van der Plas	1994	6,247,357	Construction
ROS 785 Helen Mary	Germany	Parlevliet en Van der Plas	2002	132,296	Modernisation
BX 791 Jan Maria	Germany	Parlevliet en Van der Plas	1999	3,360,110	Modernisation
H 771 Marbella	UK	Parlevliet en Van der Plas	1996	9,038	Modernisation
H 771 Marbella	UK	Parlevliet en Van der Plas	2005	78,221	Modernisation
Total Parlevliet en Van der Plas				17,688,495	
FC 716900 Prins Bernhard	France	Cornelis Vrolijk/Jaczon	1996	312,258	Modernisation
FC 716630 Scombrus	France	Cornelis Vrolijk/Jaczon	1998	996,329	Modernisation
FC 716999 Sandettie	France	Cornelis Vrolijk/Jaczon	2003	924,990	Modernisation
CC 683609 Grand Saint Bernard	France	Cornelis Vrolijk/Jaczon	1994	17,401	Modernisation
CC 683609 Grand Saint Bernard	France	Cornelis Vrolijk/Jaczon	1996	6,253	Modernisation
CC 683609 Grand Saint Bernard	France	Cornelis Vrolijk/Jaczon	1996	8,932	Modernisation

Vessel	Member state	Company	Year	Amount (€)	Used for
CC 683609 Grand Saint Bernard	France	Cornelis Vrolijk/Jacson	2002	917	Modernisation
CC 683609 Grand Saint Bernard	France	Cornelis Vrolijk/Jacson	2005	61,500	Modernisation
CC 911294 Roselend***	France	Cornelis Vrolijk/Jacson	1999	651,253	Construction
CC 683638 Saint Gothard***	France	Cornelis Vrolijk/Jacson	1994	16,446	Modernisation
CC 683638 Saint Gothard***	France	Cornelis Vrolijk/Jacson	1996	8,932	Modernisation
CC 683638 Saint Gothard***	France	Cornelis Vrolijk/Jacson	1996	6,252	Modernisation
CC 898415 War RAOG III****	France	Cornelis Vrolijk/Jacson	2001	219,743	Construction
CC 899971 War RAOG IV****	France	Cornelis Vrolijk/Jacson	2004	267,200	Construction
Total Cornelis Vrolijk/Jacson				3,498,406	
Total Willem van der Zwan en Zonen				0	
Total PFA members				21,186,901	
Of which for pelagic (freezer) trawlers				19,997,075	

*Reflagged from Dutch flag to German flag in 1999. In the fishsubsidy.org database, Germany is mentioned as the funding country ** Ship number BX 780 at time of the support ***Deep sea bottom trawler owned by French subsidiary Armement Dhellemmes **** Purse seiner owned by French subsidiary Armement Dhellemmes

Source: Fishsubsidy.org, "Recipients in All Countries, All Years", *Website Fishsubsidy.org (fishsubsidy.org/EU/browse/?filter=vessel)*, viewed October 2011.

Of the total amount of € 21.2 million, € 14.2 million was invested in vessels that have been fishing in West-Africa in the period 2006-2011, namely the vessels ROS 784 Dirk Dirk (now KL 843 Naeraberg), ROS 785 Helen Mary, BX 791 Jan Maria and FC 716900 Prins Bernhard.⁸

In total, the countries in which the members of the PFA own pelagic (freezer) trawlers and related processing facilities (France, Germany, Ireland, Lithuania, the Netherlands and the UK, see Table 1) have provided (on a co-financing basis) € 584.6 million for vessels under the FIGG (see Table 3), of which € 21.2 million was provided to the members of the PFA. This amount includes all payments for constructing, modernising and scrapping vessels as well as payments for joint enterprises, exportation to a third country and temporary joint ventures. In Germany, the vessels owned by the members of the PFA have received 31.9% of the total amount spent by the country on vessels under the FIGG.

Table 3 Total vessel payments of countries relevant for the PFA (1994-2006)

Country	Vessel payments (€ mln)	Payments for PFA (€ mln)	Share PFA (%)
France	285.5	3.5	1.2
Germany	55.2	17.6	31.9
Ireland	42.4	0.0	0.0
Lithuania ⁱ	7.6	0.0	0.0
Netherlands	55.3	0.0	0.0
United Kingdom	138.6	0.1	0.0
Total	584.6	21.2	3.6

Source: Fishsubsidy.org, "Recipients in All Countries, All Years", *Website Fishsubsidy.org (fishsubsidy.org/EU/browse/?filter=vessel)*, viewed October 2011; Mulvad, N. and Thurston, J., "Fishing for subsidies: Uncovering who gets what from the common fisheries policy in Spain", *Fishsubsidy.org*, 29 April 2010, available at s3.amazonaws.com/ocean2012-production/content_files/files/63/original/Fishing_for_subsidies.pdf?1302272538

1.2.3 The impacts of support for vessel construction and modernisation

As demonstrated in Table 2, all payments to the vessels of the PFA under the FIFG are provided for the construction or modernisation of vessels. Modernisation measures could for example target the use of selective fishing technologies, improved safety, navigation at sea, hygiene, product quality and working conditions. In the EU Council Regulation 2792/1999, it is stated that measures under the FIFG should not jeopardise the long-term equilibrium of fishery resources.⁹

However, a classification developed by the Fisheries Centre of the University of British Columbia (also maintained by the Fishsubsidy.org database), which distinguishes between 'good', 'bad' and 'ugly' subsidies, states that payments for constructing and modernising vessels are considered 'bad' subsidies as they lead to overexploitation of fishery resources, beyond the limits of the biological capacity to replenish itself.¹⁰

The same conclusion is drawn by a shadow evaluation of the FIFG by Poseidon Aquatic Resource Management Ltd. and the Pew Environment Group. This evaluation states that the payments for modernising vessels could increase the effective capacity of the vessels, enabling them to fish for long periods, further afield and/or in more inclement weather. By improving the effectiveness of the vessel in its ability to catch fish, modernisation has increased the fishing capacity of a vessel in real terms.¹¹

1.2.4 Non-vessel payments

In total, € 5.1 billion payments were made to non-vessel recipients under the FIFG. Non-vessel payments under the FIFG could for example include measures to increase processing capacity, to construct or extend ports or to modernise existing processing units. Spain accounted for the largest share of non-vessel payments (41% of the total) under the FIFG.¹²

Unfortunately, the information about the beneficiaries of non-vessel payments under the FIFG is far less transparent than the information about beneficiaries of vessel payments. While the Fishsubsidy.org database clearly specifies the vessels which have received support under the FIFG, the non-vessel payments are in almost all cases provided to 'unknown beneficiaries'. The reason is the absence of information released by the European Commission and the EU member states.¹³

ⁱ Lithuania only joined the EU in 2004 and therefore only participated in the second programming period of the FIFG.

Table 4 lists the non-vessel support received by members of the PFA under the FIG that could be found from other sources, including the companies' annual reports and information released by EU member states. The total amount provided to PFA members is roughly € 24.5 million. Of this amount, € 21.0 million (85.7%) was provided by Germany, while € 3.5 million (14.3%) was provided by the Netherlands. Especially the Euro-Baltic processing plant, based in Germany and owned by Parlevliet en Van der Plas, received a large amount of support under the FIG. The PFA as a whole has also received several subsidies. However, because of a lack of transparency about the beneficiaries of non-vessel payments, the actual amount received by the PFA could be much higher.

Table 4 Non-vessel payments for the PFA under the FIG (1994-2006)

Beneficiary	Company	Member state	Year	Amount (€)	Used for	Source
Euro-Baltic Fischverarbeitungs GmbH	Parlevliet en Van der Plas	Germany	2002	17,010,000 ⁱ	Investment grant for first stage of Euro-Baltic fish processing center	14
Euro-Baltic Fischverarbeitungs GmbH	Parlevliet en Van der Plas	Germany	2006	3,829,000	Investment grant for second and third stages of Euro-Baltic fish processing center	15
Euro-Baltic Fischverarbeitungs GmbH	Parlevliet en Van der Plas	Germany	2006	126,000	Investment grant for fourth stage of Euro-Baltic fish processing center	16
Total Parlevliet en Van der Plas				20,965,000		
Jaczon BV	Cornelis Vrolijk/Jaczon	Netherlands	2006/2007*	1,670,680	Twinson project, selection system to prevent by-catch	17
Total Cornelis Vrolijk/Jaczon				1,670,680		
Total Willem van der Zwan en Zonen				0		
Rederij Vereniging voor zeevisserij	PFA as a whole	Netherlands	Unknown (spent in 2009)	422,703	Excluder project 3	18
Rederij Vereniging voor zeevisserij	PFA as a whole	Netherlands	Unknown (spent in 2009)	700,000	Selectivity horse mackerel	19
Rederij Vereniging voor zeevisserij	PFA as a whole	Netherlands	2006/2007* (spent in 2009)	407,240	Excluder project 2	20
Rederij Vereniging voor zeevisserij	PFA as a whole	Netherlands	2006/2007* (spent in 2009)	297,000	Corten Marine Research	21
Total PFA as a whole				1,826,943		
Total PFA members				24,462,623		

*Financial year 2007 (16 Oct 2006 until 15 Oct 2007). Although the programming period of the FIG only ran until 2006, some payments for projects which were already approved under the programme were spent between 2006 and early 2009.

ⁱ In a report written for the European Commission, it was even indicated that the EU supplied 55% towards the project costs of the Euro-Baltic fish processing center of € 100 million, and that the German government provided one-third of the € 35 million spent on the expansion of the plant between 2005 and 2007. However, these amounts cannot be found in the accounts of the subsidiaries of Parlevliet en Van der Plas. The amounts were probably not supplied directly to subsidiaries of Parlevliet en Van der Plas but for example to the companies which constructed the processing center, and are therefore not counted as direct support. (see also: "Foodprocessing Technology, "Euro-Baltic Fish Processing Centre Expansion", *Website Foodprocessing Technology (www.foodprocessing-technology.com/projects/fishproc/)*, viewed October 2011.

The members of the PFA own non-vessel activities related to the pelagic (freezer) sector in Germany and the Netherlands. These countries have provided € 401.6 million non-vessel payments under the FIGG (see Table 5). In Germany, non-vessel payments to the members of the PFA represent 6.9% of the total amount spent by the country on non-vessel payments. In the Netherlands, the respective figure is 3.6%.

Table 5 Total FIGG non-vessel payments of countries relevant for the PFA

Country	FIGG Non-vessel payments (€ mln)	Identified payments for PFA (€ mln)	Share PFA (%)
Germany	305.3	21.0	6.9
Netherlands	96.3	3.5	3.6
Total	401.6	24.5	6.1

Source: Fishsubsidy.org, "Recipients in All Countries, All Years", *Website Fishsubsidy.org (fishsubsidy.org/EU/browse/?filter=vessel)*, viewed October 2011; Mulvad, N. and Thurston, J., "Fishing for subsidies: Uncovering who gets what from the common fisheries policy in Spain", *Fishsubsidy.org*, 29 April 2010, available at s3.amazonaws.com/ocean2012-production/content_files/files/63/original/Fishing_for_subsidies.pdf?1302272538

Germany appears to be the largest provider of direct support to the PFA under the FIGG, both in terms of vessel payments and non-vessel payments.

1.2.5 The FIGG and catch values

There has been a lot of critique by environmentalists which argue that subsidies, which are very large in comparison to the value of the catches in a specific country, result in overfishing and help to destroy fish stocks.²² Table 6 compares the amounts pledged by several countries under the FIGG to the total catch value in the same countries in the period 1994-2006. The table shows that in Germany, the FIGG payments represented 26.1% of the total catch value of German fishing vessels in the period 1994-2006.

Table 6 FIGG payments compared to catch values

Country	Total FIGG payments 1994-2006 (€ mln)	Total value of catch 1994-2006 (€ mln)	FIGG payments as % of catch value
France	752.8	10,524.2*	7.2
Germany	360.5	1,380.5	26.1
Ireland	166.5	2,486.8	6.7
Lithuania ⁱ	10.8	61.0**	17.7
Netherlands	151.6	4,300.7	3.5
United Kingdom	371.7	8,581.8	4.3
Total	1,813.9	23,467.7	7.7

* No data for 1994-1998. Estimate based on catch value of 1999 was used for these years ** Only data for 2005 and 2006. Data from these two years is used as an average yearly catch value.

Source: EUROSTAT Database, "Landings of fishery products: per country", *EUROSTAT Database (appsso.eurostat.ec.europa.eu)*, viewed November 2011.

ⁱ Lithuania only joined the EU in 2004 and therefore only participated in the second programming period of the FIGG.

If other forms of direct support as well as indirect support are also included in these figures, the percentage of support relative to the catch value would be much higher. The consultancy Oceana, using data for 2009, estimates in its report “The European Union and Fishing Subsidies” dated September 2011 that for some countries (including Germany) the total amount of support in 2009 is higher than the total value of the catch in this year.²³ Concerns have been raised that a situation with subsidies results in complete overfishing while in a situation without subsidies overfishing would lead to fishermen staying ashore and waiting until the stock recovers.²⁴

1.3 European Fisheries Fund (EFF)

The European Fisheries Fund (EFF) replaced the FIFG and is operational in the period 2007-2013. With a budget of € 4.3 billion, including up to 75% for regions whose development is lagging behind, the EFF helps to finance projects presented by companies, public authorities or representative bodies. The emphasis of the European Fisheries Fund (EFF) is increasingly centred around sustainability. An important priority of the fund regards improving the balance of the EU fishing fleet and the available fishing opportunities.²⁵ Vessel construction, modernization and the export of fishing vessels are not allowed under the EFF, with the exception of measures authorised under the so-called emergency fuel package. However, aid is available to support the adoption of sustainable catching methods as well as improved storage, fish handling and energy efficiency.²⁶ As with the FIFG, the EFF is operated on the basis of a co-financing principle: the funding for each project must include support from the government of the member state concerned.²⁷

A recent report released by six NGOs (BirdLife, Greenpeace, Ocean2012, Oceana, Seas and Risk and WWF) is critical about how the objectives of the EFF work in practice. The report states that the EFF has not tackled the issue of overcapacity, and that the fund has been used to help vessel owners overcome short-term economic problems, as a result aggravating the problem of overfishing. Support under the EFF can be expected to increase fishing capacity, or at least not help reduce it. Nearly 40 per cent of the EFF was committed to expanding port infrastructure, processing, and aquaculture by October 2010, increasing economic returns to fishing companies and encouraging increased production.²⁸

The support received by the members of the PFA under the EFF is summarised in Table 7. In total, the PFA members have received just over € 1 million under the EFF between 2007 and 2010. The largest amount (€ 0.73 million or 67.6%) was received by Parlevliet en Van der Plas (all authorized by and with co-funding from Germany), while € 0.35 million or 32.4% was received by Cornelis Vrolijk/Jaczon (all authorized by and with co-funding from the Netherlands). Of the amount received by Cornelis Vrolijk/Jaczon, € 0.15 million was provided for the pelagic trawler activities of the company, while € 0.20 million was provided for other activities. No support was found for Willem van der Zwan en Zonen and its subsidiaries. Data for 2011, as well as for 2012-2013, are not yet available.

Table 7 Support up to 2010 for the PFA under the EFF (2007-2013)

Beneficiary	Company	Member state	Year	Amount (€)	Used for
Doggerbank Seefischerei GmbH	Parlevliet en Van der Plas	Germany	Unknown	80,216	Fishing gear for vessel Jan Maria
Westbank Hochseefischerei GmbH	Parlevliet en Van der Plas	Germany	Unknown	646,383	Pilot project, SkySails system vessel Maartje Theodora
Total Parlevliet en Van der Plas				726,599	
Jaczon BV	Cornelis Vrolijk/Jaczon	Netherlands	2010	148,620*	Competition / market position important species
Jaczon Kotter Visserij Maatschappij BV	Cornelis Vrolijk/Jaczon	Netherlands	2010	200,000**	Unknown
Total Cornelis Vrolijk/Jaczon				348,620	
Total Willem van der Zwan en Zonen				0	
Total PFA members				1,075,219	

* Amount was not spent in this year ** Not for pelagic trawler activities.

Source: The information provided by the Dutch, French, German, Lithuanian and UK governments under the 'EU Transparency Initiative', for sources see Appendix 1.

In addition to the figures presented in Table 7, the French company Euronor has received two decommissioning subsidies of € 1.9 million each under the EFF, for its vessels Cap Saint Jean and Cap Saint Jacques.²⁹ Since December 2010 Euronor is 50% owned by Parlevliet en van der Plas. At the time of the provision of the support (the exact date is unknown, probably in 2008 or 2009) Euronor was not yet owned by Parlevliet en Van der Plas. However, Parlevliet en Van der Plas is able to benefit indirectly from the subsidies because it has made Euronor more attractive to acquire and because Euronor planned (before the takeover of Parlevliet en Van der Plas) to recommission the Cap Saint Jean into the saithe fishery. If these plans will take effect after the acquisition by Parlevliet en Van der Plas is not yet known.³⁰ If this is the case, the decommissioning subsidy of the EU has not led to a reduction in the fishing fleet.

The amount provided to the members of the PFA under the EFF is very small in comparison to the total budget of the EFF. However, only the subsidiaries of the PFA related to pelagic (freezer) fishing as well as deep sea fishing were researched. Also, the data for 2011 until 2013 is not yet known. Therefore, the actual amount provided to the PFA members under the EFF could be higher.

One subsidy to the PFA as a whole in 2011 was found: a subsidy from the Netherlands for the project "using data from pelagic fishing vessels in stock estimates". This subsidy was selected under the subsidy scheme "Collective actions in the fish chain". The PFA is the main applicant of this subsidy. The amount of the subsidy is unknown. Together with 17 other projects, the project will receive € 4.5 million under the subsidy scheme.³¹

1.4 Other forms of direct support

1.4.1 Introduction

Besides EU subsidies from the FIG and EFF, fishery companies also receive other forms of direct support from EU member states. This direct support includes state aid: assistance from national governments to companies engaged in economic commercial activity on a selective basis. De minimis aid, a special form of state aid, can provide a limited amount of aid to fishing companies and serves especially to compensate rising fuel prices. State aid and de minimis aid are described in paragraph 1.4.2. Other forms of direct support which are not (extensively) researched in this report are described in paragraph 1.4.3.

1.4.2 State aid

State aid schemes are initiated independently by the member states. The European Commission created guidelines on state aid to the fisheries sector to ensure compliance with objectives of the EFF. Examples of state aid in compliance with the objectives of the EFF are rescuing and restructuring of firms in difficulty, and support for the equipment and modernisation of fishing vessels which are at least five years old which is directed at an improvement of on-board safety, working conditions, hygiene, product quality, energy efficiency or selectivity.³²

An EU databaseⁱ lists state aid projects per member state. In most cases, these state aid schemes are not directed at one specific company, but target specific categories of companies. Unfortunately, the database does not specify the companies which have used the funds of the state aid schemes. Some examples of state aid schemes which could benefit members of the PFA are:³³

- Aides Aux Organisations de Producteurs (France): Support specifically for producer organisations;
- Fonds de Prévention des Aléas à la Pêche (France): Support to compensate for the rise in the price of fuel affecting French fishery undertakings since 2004;
- Förderung von Investitionen in der Seefischerei (Germany): Scheme to improve the productivity of marine fisheries. Construction and modernisation of vessels can be funded under this aid scheme;
- Heringsfischerei (Germany): Scientific, technical and organizational measures to revitalize the herring fishery with active and passive fishing methods in the inner and outer coastal waters of Mecklenburg-Vorpommern.

For one state aid scheme information was found that a PFA member was given support. Some years ago the Fonds de Prévention des Aléas à la Pêche (France) has granted support to Euronor, which is since December 2010 50% owned by PFA member Parlevliet en Van der Plas. However, the EU decided in May 2008 that in practice this fund enabled the undertaking to benefit from a fuel price much lower than the market price.³⁴ Therefore, Euronor had to repay the received support.³⁵

No other state aid support for the members of the PFA was found.

ⁱ To be found at the website ec.europa.eu/competition/elojade/isef/index.cfm.

A specific form of state aid is *de minimis* aid. De minimis state aid is deemed not to distort competition, and is especially directed at providing fuel subsidies to the fishing sector at a time of rising fuel prices. The ceiling is set at € 30,000 per three-year period, per beneficiary. The total budget amounts to € 718 million for a three-year period, or the double for the entire duration of validity of the regulation (2007-2013). The available budget would allow to support a total of 24,000 firms, i.e. about 25% of the total number of firms in the catching, fish processing and aquaculture sector.³⁶ Table 8 presents the total amount of de minimis aid for fisheries for the most important countries where the members of the PFA are active.

Table 8 De minimis aid per three-year period

Country	Allocated de minimis aid for fisheries (€ mln)
France	138.6
Germany	49.0
Ireland	8.5
Lithuania	5.2
Netherlands	35.9
United Kingdom	102.7
Total	339.9

Source: Official Journal of the European Union, “Commission Regulation (EC) No 875/2007 of 24 July 2007 on the application of Articles 87 and 88 of the EC Treaty to de minimis aid in the fisheries sector and amending Regulation (EC) No 1860/2004”, *Official Journal of the European Union*, 25 July 2007, available at eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:193:0006:0012:EN:PDF

It is unknown if the members of the PFA have received de minimis aid, because the information about beneficiaries is not transparent. If all catching and fish processing subsidiaries of the PFA members would have received de minimis aid, around € 1 million could have been received by all PFA members collectively for a three-year period.ⁱ

1.4.3 Other support categories

In a previous study on financial support conducted by Oceana (the report “The European Union and Fishing Subsidies” dated September 2011), several other support categories are mentioned, namely:³⁷

- Block exemption, another form of state aid granted small and medium-sized enterprises;
- The “Second Financing Instrument”, aimed at fisheries governance and international agreements, including support for implementing the monitoring and control systems applicable to the common fisheries policy, data collection subsidies and contributions to Regional Fisheries Management Organizations (RFMOs), which are organisations such as the International Commission for the Conservation of Atlantic Tuna (ICCAT);
- The European Agriculture Guarantee Fund (EUGF), including support for outermost regions and intervention fishery products;
- “Extra” support, including administration and pilot projects.

ⁱ As specified in Profundo’s report “Company structures, financing and costs of Dutch pelagic freezer trawler companies” dated May 2011, the PFA members own a total of 26 vessel-owning subsidiaries (Parlevliet en van der Plas: 11; Cornelis Vrolijk/Jaczon: 9; Willem van der Zwan en Zonen: 5) and 8 fish processing subsidiaries (Parlevliet en van der Plas: 5; Cornelis Vrolijk/Jaczon: 2; Willem van der Zwan en Zonen: 1). This equals 34 subsidiaries which are eligible for de minimis support, for a total amount of € 1.02 million per three years.

Some of these categories can be considered direct support while others can be considered indirect support. Data for these categories was found in the "Financial Transparency System" database of the European Commissionⁱ. In this database, no support for the members of the PFA was found. The possible indirect support under these measures was not researched.

ⁱ European Commission, "Financial Transparency System", *Website European Commission* (ec.europa.eu/beneficiaries/fts/), viewed October 2011.

Chapter 2 Indirect support

2.1 Introduction

The members of the PFA are able to receive indirect support from the EU and the governments of the EU member states especially in relation to securing fishing access under Fisheries Partnership Agreements (FPAs) concluded between the EU and non-EU countries and through fuel tax exemptions. While this indirect support is not transferred directly to the fishery companies, it ensures access to fish resources and reduces the costs of these companies, making the fishing sector more profitable than it would otherwise have been. This could even imply that without the support, fisheries companies would incur losses.

This chapter is organised as follows: paragraph 2.2 presents the indirect support for the members of the PFA through FPAs between the EU and Mauritania and Morocco, the fishing areas where the members of the PFA are active. Paragraph 2.3 provides an overview of the indirect fuel support for the members of the PFA.

2.2 Fisheries agreements

2.2.1 Introduction

Fisheries Partnership Agreements (FPAs) of the EU are agreements with non-EU countries whereby the EU gives financial and technical support in exchange for fishing rights. EU fleets are allowed to fish for stocks considered to be in good shape and not fully exploited by the country's own fleet.³⁸ For the members of the PFA, the agreements with Mauritania and Morocco are relevant, because these are important fishing areas of the companies. The FPA between the EU and Mauritania will be described in paragraph 2.2.2 and the FPA between the EU and Morocco will be described in paragraph 2.2.3.

2.2.2 FPA with Mauritania

The FPA between the EU and Mauritania is the most important FPA of the EU, both financially and in terms of fishing opportunities. The first EU agreement with Mauritania dates back to 1987. The latest agreement was renewed in August 2006 for a period of six years until mid-2012.³⁹

The agreement covers eleven fishing categories, of which pelagic freezer trawlers are one category.⁴⁰ Under the FPA, a fixed number of fishing licences for a total authorised vessel capacity in gross tonnage (GT) are allocated for each category. In some cases, the maximum allowed catch, in tonnes, is also specified.⁴¹

The latest protocol for the FPA between the EU and Mauritania was concluded in August 2008 for a period of four years. This protocol renegotiated the protocol which was concluded in 2006. Under the 2006 protocol, 440,000 tonnes of small pelagic fish could be caught by EU pelagic freezer trawlers annually, divided over 22 licences. The revised protocol of 2008 only allows a maximum of 17 licences a year to catch a total reference tonnage of 250,000 tonnes of small pelagic fish. However, this quota may be exceeded on the bases of the provisions laid down in the protocol. For each additional tonne caught by the pelagic freezer trawlers, the EU has to pay € 40.⁴²

The EU has committed a total amount of € 477 million in contributions for the FPA with Mauritania (see Table 7). During the agreement period of the FPA (2006-2012), the average annual contribution is € 79.5 million. In addition, the EU has also provided at least € 5.4 million to Mauritania because the small pelagic fish quota of the European pelagic freezer trawlers were exceeded in 2008-09 and 2009-10. Therefore, the total amount provided by the EU under the FPA is at least € 80.4 million, and could be higher if the small pelagic fish quota will also be exceeded in 2010-11 and 2011-12, for which no data are yet available.

Based on catch volumes per category and the value of the different fish species we estimate that the European pelagic freezer trawlers account for approximately 49.0% (see Appendix 2) of the annual turnover generated by all European vessels which are fishing in Mauritania under the FPA. Turnover is a measure of economic value and we use this measure as an indicator of the share of the contribution of the EU to Mauritania under the FPA which benefits the European pelagic freezer trawlers. In addition, the European pelagic freezer trawlers also directly benefit from the amount provided by the EU for extra pelagic quota. We estimate that 49.5% of the annual payments (49% of the contribution plus the amount for extra pelagic quota) of the EU to Mauritania under the FPA (€ 39.8 million) benefits the category pelagic freezer trawlers. The members of the PFA currently hold 8 out of the 17 licences⁴³ allocated in the category pelagic freezer trawlers, and held an estimated 10 out of the 22 licences in the period 2006-07 until 2007-08. We therefore estimate that the PFA members represented 45.5% of the pelagic freezer trawler category in the period 2006-07 until 2007-08 and 47.0% in the period 2008-09 until 2011-12.

Based on the above percentages we estimate that € 18.5 million of the average annual FPA payments of the EU to Mauritania benefit the members of the PFA. This represents 23.3% of the total average annual amount provided by the EU (see Table 9, for full calculations see Appendix 2).

Table 9 Fisheries Agreement EU-Mauritania, mid-2006 until mid-2012 (calculations in Appendix 2)

Year	Contribution EU (€ mln)	Amount EU for extra pelagic quota (€ mln)	Total amount provided by the EU (€ mln)	Benefit pelagic freezer trawlers EU (€ mln)	%	Benefit PFA (€ mln)	%
	A	B	C = A + B	D = (49%*A)+B	= D/C *100%	E = 45.5% or 47.0%*D	=E/C *100%
2006-07	86.0	0.0	86.0	42.1	49.0	19.2	22.3
2007-08	86.0	0.0	86.0	42.1	49.0	19.2	22.3
2008-09	86.0	1.5	87.5	43.6	49.8	20.5	23.4
2009-10	76.0	3.9	79.9	41.1	51.4	19.3	24.2
2010-11	73.0	0.0*	73.0	35.8	49.0	16.8	23.0
2011-12	70.0	0.0*	70.0	34.3	49.0	16.1	23.0
Total	477.0	5.4	482.4	239.0	49.5	111.1	23.3
Average	79.5	0.9	80.4	39.8	49.5	18.5	23.3

*Not yet known, could be positive numbers.

Next to the contribution paid by the EU, ship owners which have been allocated licences under the FPA agreement also have to pay fees to Mauritania. These fees are summarised in Table 10. As outlined in the protocol, Mauritania was expected to receive roughly € 22 million annually from ship owners in the period 2006-07 until 2007-08, and € 15.0 million from 2008-09 until 2011-12.⁴⁴ However, in practice the fees paid by ship owners appear to be lower. In total, Mauritania has received € 60.4 million from ship owners during the lifetime of the FPA. The annual average amount is € 10.1 million (see Table 10).

Of this annual average, € 4.4 million (43.3%) was paid by the owners of pelagic freezer trawlers. Based on the amount of licences of the PFA members (45.5% of the pelagic freezer trawler category in the period 2006-07 until 2007-08 and 47.0% in the period 2008-09 until 2011-12), we estimate that the PFA members have paid an annual average of € 2.0 million.

Table 10 Fees of ship owners received by Mauritania under the FPA, mid-2006 until mid-2012

Year	All categories (€ mln)	Pelagic freezer trawlers (€ mln)	Pelagic freezer trawlers as % of all ship owners	Estimate PFA members (€ mln)
2006 (half year)	3.8	1.5	39.2	0.7
2007	10.3	3.3	32.3	1.5
2008	8.9	3.5	39.2	1.6
2009	12.1	6.4	53.0	3.0
2010*	9.7	4.8	50.0	2.3
2011**	10.4	4.4	42.3	2.1
2012 (half year)**	5.2	2.2	42.3	1.0
Total	60.4	26.1	43.3	12.2
Average	10.1	4.4	43.3	2.0

*Amount is incomplete **Amounts are estimated using averages from 2007-2009.

Source: Oceanic Développement, MegaPesca, "Evaluation ex-post du protocole actuel d'Accord de Partenariat dans le domaine de la Pêche entre l'Union Européenne et la Mauritanie, Etude d'impact d'un possible future protocole d'Accord", *Oceanic Développement, MegaPesca*, March 2011, not publicly available.

Adding the amounts paid by the ship owners themselves to the annual amount committed by the EU shows that ship owners on average paid 11.1% and the EU on average paid 88.9% of the total FPA payments to Mauritania. Ship owners of pelagic freezer trawlers on average paid 9.9% while the EU paid 90.1% of the payments to Mauritania which benefited these pelagic freezer trawlers (see Table 11).

Table 11 Payments by the EU and ship owners, mid-2006 until mid-2012

Fees	All European vessels	All European pelagic freezer trawlers
Total fees from ship owners	€ 60.4 million	€ 26.1 million
Total fees from the EU	€ 482.4 million	€ 239.0 million
Total	€ 542.8 million	€ 265.1 million
% ship owners	11.1%	9.9%
% EU	88.9%	90.1%

Source: Oceanic Développement, MegaPesca, "Evaluation ex-post du protocole actuel d'Accord de Partenariat dans le domaine de la Pêche entre l'Union Européenne et la Mauritanie, Etude d'impact d'un possible future protocole d'Accord", *Oceanic Développement, MegaPesca*, March 2011, not publicly available.

2.2.3 FPA with Morocco

The current FPA between the EU and Morocco entered into force in February 2007 and ran for four years. In February 2011 a one-year extension of this protocol was initialled by the parties, but this still needs to be ratified by the European Parliament.⁴⁵

The total annual contribution which Morocco receives from the European Union is based on a maximum of 119 fishing licences for EU vessels in the categories of small-scale fishing, demersal fishing and tuna fishing, as well as a maximum quota of 60,000 tonnes of small pelagic fish in the category of industrial pelagic fishing. This quota was not exceeded in any year.⁴⁶

Table 12 shows that the EU has committed a total amount of € 144 million for the FPA with Morocco in the period 2007-08 until 2010-11. The annual contribution is € 36.0 million. Based on catch volumes and the value of the different fish species which are caught per fishing category, we estimate that around € 24.5 million of this annual contribution benefits the category pelagic freezer trawlers (for calculations, see Appendix 3). This represents 68.0% of the annual contribution of the EU. The members of the PFA are allocated at least 32.3% of the authorised catch under the licences of the FPA between the EU and Morocco. Therefore, we estimate that € 7.9 million of the annual contribution benefits the members of the PFA. This represents 21.9% of the annual FPA contribution of the EU to Morocco.

Table 12 Fisheries Agreement EU-Morocco, February 2007-2011 (calculations in Appendix 3)

Year	Total amount provided by the EU (€ mln)	Benefit pelagic freezer trawlers EU (€ mln)	%	Benefit PFA (€ mln)	%
	A	B = 68%*A	=B/A*100%	C = 32.3%*B	=D/A*100%
2007-08	36.0	24.5	68.0	7.9	21.9
2008-09	36.0	24.5	68.0	7.9	21.9
2009-10	36.0	24.5	68.0	7.9	21.9
2010-11	36.0	24.5	68.0	7.9	21.9
Total	144.0	98.0	68.0	31.6	21.9
Average	36.0	24.5	68.0	7.9	21.9

Next to the contribution paid by the EU, ship owners which have been allocated licences under the agreement also have to pay fees to Morocco themselves. Morocco was supposed to receive roughly € 3.4 million annually from ship owners under the FPA. However, the actual amounts are much lower, (partly) because the fishing quota were not used in several cases. Table 13 shows that in total, ship owners have paid € 7.0 million to Morocco under the FPA.⁴⁷ This includes costs for observation at sea. Based on authorised catch of the PFA members (members of the PFA are allocated at least 32.3% of the authorised catch under the licences of the FPA between the EU and Morocco), we estimate that the PFA members have paid an annual average of € 0.3 million.

Table 13 Fees of ship owners received by Morocco under the FPA (February 2007-2011)

Year	All categories (€ mln)	Pelagic freezer trawlers (€ mln)	Pelagic freezer trawlers as % of all ship owners	Estimate PFA members (€ mln)
2007-08	1.4	0.7	50.0	0.2
2008-09	2.2	1.3	59.0	0.4
2009-10	1.6	1.0	62.5	0.3
2010-11*	1.8	1.0	55.6	0.3
Total	7.0	4.0	57.1	1.2
Average	1.8	1.0	57.1	0.3

*Amounts are estimated using averages from 2007-2009.

Source: Oceanic Développement, MegaPesca Lda, "Evaluation ex-post du protocole actuel d'Accord de Partenariat dans le domaine de la Pêche entre l'Union Européenne et le Royaume du Maroc", *Oceanic Développement, MegaPesca Lda*, March 2010, not publicly available.

Adding the amounts in Table 13 to the annual amounts committed by the EU (Table 14), shows that ship owners on average paid 4.6% and the EU on average paid 95.4% of the total FPA payments to Morocco. Ship owners of pelagic freezer trawlers on average paid 3.9% while the EU paid 96.1% of the payments to Morocco which benefited these pelagic freezer trawlers.

Table 14 FPA payments by the EU and ship owners to Morocco (February 2007-2011)

Fees	All European vessels	All European pelagic freezer trawlers
Total fees from ship owners	7.0	4.0
Total fees from the EU	144.0	98.0
Total	151.0	102.0
% ship owners	4.6	3.9
% EU	95.4	96.1

Source: Oceanic Développement, MegaPesca Lda, "Evaluation ex-post du protocole actuel d'Accord de Partenariat dans le domaine de la Pêche entre l'Union Européenne et le Royaume du Maroc", *Oceanic Développement, MegaPesca Lda*, March 2010, not publicly available.

2.3 Fuel support

2.3.1 Introduction

On 27 October 2003, the European Union's Council of Ministers adopted the *Directive 2003/96/EC, restructuring the community framework for the taxation of energy products and electricity*. This directive established minimum rates for the taxation of energy products used as motor fuels and heating fuels, as well as electricity. The taxation of energy products and electricity was one of the instruments the EU used in order to achieve the Kyoto Protocol objectives, which it ratified in May 2002.⁴⁸

In the directive, the EU states that member states have to exempt energy products supplied for use as fuel for the purpose of navigation within community waters, including fishing, from taxes. In practice this implies that when vessels bunker in EU ports they do not have to pay excises on fuels bunkered, including heavy fuel oil and gas oil. Air transport is also exempted from fuel taxes.⁴⁹

By exempting navigation within community waters from taxes, the national governments of the EU miss out on an opportunity to collect taxes which *are* applied for example to fuels for road transport in the EU and to various fuels for non-transport use. This exemption is a form of indirect support to the European fishery sector. (It should be noted that the EU is not alone in exempting marine fuel from taxes; as far as we know, no single country in the world has introduced an excise on marine fuel.)

2.3.2 Indirect fuel support for the PFA

The estimated amount of indirect fuel support for the members of the PFA was calculated based on the total annual fuel consumption of the vessels (estimated on the basis of the engine size of the vessels), the fishing waters of the vessels, the activity of the vessels, and the fuel excise duties which apply to heavy fuel oil and gas oil for other purposes. The calculations are presented in Appendix 4.

We estimated that on average, the vessels of the PFA members consume 80% heavy fuel oil and 20% gas oil. To quantify the level of indirect fuel support for the PFA, two scenarios were used:

- **Scenario 1:** In this scenario the level of the tax exemption on the fuel consumption of the pelagic (freezer) trawlers was estimated by using the level of excise duties on gas oil for road transport (around € 0.45 per liter) and the level of excise duties on heavy fuel oil for heating purposes (around € 0.04 per liter). For heavy fuel oil no excise duties for transport use exist, because this type of fuel is not used for other kinds of transport than sea transport.
- **Scenario 2:** In the second scenario the level of the tax exemption on all fuel consumed by the pelagic (freezer) trawlers of the members of the PFA was compared to the excise duty which the EU member states apply to the use of gas oil for road transport (€ 0.45 per liter).

Both scenarios are comparisons to excises which are currently non-existent for fuel consumed by European vessels. In the first scenario (the lowest estimate) we compare to excises on the same type of fuel but, in the case of heavy fuel oil, not the same application; in the second (high) scenario we compare to excises on the same application (transport) but not the same type of fuel. The first scenario will probably lead to an underestimation of the indirect fuel support, because transport is generally taxed more heavily than heating use; excises on gas oil for heating use, for example, are about two to four times smaller than excises on gas oil for transport.⁵⁰ However, the second scenario (the highest estimate) could be an overestimate because the price of heavy fuel oil is about twice as low as the price of gas oil⁵¹, and it is likely that the excise will be set in proportion to the total price. Therefore, this report will present both estimates as a range of the indirect fuel support.

We estimate that the members of the PFA have benefited from an average annual amount of indirect fuel support as a result of the EU tax exemption of € 20.9 million (Scenario 1) to € 78.2 million (Scenario 2) in the period 2006-2011.ⁱ A summary of the calculation is presented in Table 15, the full calculation can be found in Appendix 4.

It should be noted that the vessels listed in Table 15 are only the pelagic (freezer) trawlers of the PFA members. Next to these vessels, the PFA members also own several vessels which engage in other activities, like deep sea fishing, demersal trawling etc. Therefore, the actual amount of indirect fuel support to the PFA companies is actually even much higher than the amounts summarised in this paragraph.

ⁱ These estimates are based on actual fuel consumption in the period 2006-11. It should be noted that if the EU had been applying excises to marine transport in this period, the fuel consumption of the pelagic (freezer) trawlers of the PFA and other vessels would probably have been lower because higher costs.

Table 15 Indirect annual fuel support for the pelagic (freezer) trawlers of the members of the PFA (calculations in Appendix 4) (average 2006-2011)

Vessel	Group	Engine (KW) ^{s2}	Fuel consumption 2006-11 (avg/yr) (A)	Fishing in the EU/Africa 2006-11 (avg/yr) (B)	Activity 2006-11 (C)	Fuel consumption in the EU 2006-11 (avg/yr) (D)=A+B+C	Fuel exemption 2006-11 (avg/yr) (E ₁)	EU support 2006-11 (avg/yr) (F ₁)=D*E ₁	Fuel exemption 2006-11 (avg/yr) (E ₂)	EU support 2006-11 (avg/yr) (F ₂)=D*E ₂
		KW	1,000 liters	%	%	1,000 liters	€	1,000 €	€	1,000 €
		Scenario 1		Scenario 2						
KW 170 Annie Hillina	P & P	2,863	5,107	100.0	100.0	5,107	0.12	613	0.45	2,298
KW 172 Dirk Diederik	P & P	6,600	7,230	100.0	90.3	6,529	0.12	783	0.45	2,938
KW 174 Annelies Ilena	P & P	14,400	17,349	29.7	100.0	5,153	0.12	618	0.45	2,319
BX 786 Atlantic Peace	P & P	2,427	3,301	100.0	100.0	3,301	0.12	396	0.45	1,485
BX 791 Jan Maria	P & P	6,000	8,160	65.3	92.0	4,902	0.12	588	0.45	2,206
ROS 171 Maartje Theadora	P & P	8,640	11,750	42.7	100.0	5,017	0.12	602	0.45	2,258
ROS 784 Dirk Dirk (now Naeraberg)	P & P	2,600	3,536	100.0	100.0	3,536	0.12	424	0.45	1,591
ROS 785 Helen Mary	P & P	5,299	7,207	78.4	100.0	5,650	0.12	678	0.45	2,543
ROS 786 Gerda Maria	P & P	3,000	4,080	100.0	100.0	4,080	0.12	490	0.45	1,836
KL 749 Margiris	P & P	9,840	13,382	71.1	100.0	9,515	0.12	1142	0.45	4,282
KL 759 Nida	P & P	1,764	2,399	100.0	100.0	2,399	0.12	288	0.45	1,080
NT 500-V Tronderbas	P & P	5,593	7,606	0.0	100.0	0	0.12	0	0.45	0
H 135 Farnella	P & P	1,880	2,557	100.0	100.0	2,557	0.12	307	0.45	1,151
H 771 Marbella	P & P	2,700	3,672	100.0	100.0	3,672	0.12	441	0.45	1,652
H 176 Arctic Warrior	P & P	2,400	3,264	100.0	100.0	3,264	0.12	392	0.45	1,469
Total Parlevliet en Van der Plas								7,762		29,107
SCH 81 Carolien	CV/J	7,690	10,458	100.0	85.0	8,890	0.12	1067	0.45	4,000
SCH 72 Frank Bonefaas	CV/J	4,853	6,600	100.0	100.0	6,600	0.12	792	0.45	2,970
SCH 24 Afrika	CV/J	7,210	9,806	100.0	100.0	9,806	0.12	1177	0.45	4,413
SCH 123 Zeeland	CV/J	7,260	9,874	100.0	100.0	9,874	0.12	1185	0.45	4,443
PH 110 Wiron 1	CV/J	2,160	2,938	100.0	100.0	2,938	0.12	353	0.45	1,322
PH 220 Wiron 2	CV/J	2,160	2,938	100.0	100.0	2,938	0.12	353	0.45	1,322
SCH 22 Wiron 5	CV/J	2,125	2,890	100.0	100.0	2,890	0.12	347	0.45	1,301
SCH 23 Wiron 6	CV/J	2,125	2,890	100.0	100.0	2,890	0.12	347	0.45	1,301
H 171 Cornelis Vrolijk Fzn	CV/J	7,117	9,679	100.0	100.0	9,679	0.12	1161	0.45	4,356
H 90 Atlantic Princess	CV/J	4,854	6,601	100.0	100.0	6,601	0.12	792	0.45	2,971
FC 716900 Prins Bernhard	CV/J	3,240	4,406	100.0	80.6	3,552	0.12	426	0.45	1,598

Vessel	Group	Engine (KW) ⁵²	Fuel consumption 2006-11 (avg/yr) (A)	Fishing in the EU/Africa 2006-11 (avg/yr) (B)	Activity 2006-11 (C)	Fuel consumption in the EU 2006-11 (avg/yr) (D)=A+B+C	Fuel exemption 2006-11 (avg/yr) (E)		EU support 2006-11 (avg/yr) (F) ₁ =D*E ₁	
							€	1,000 €	€	1,000 €
							Scenario 1		Scenario 2	
FC 716630 Scombrus	CV/J	2,942	4,001	100.0	100.0	4,001	0.12	480	0.45	1,801
FC 716999 Sandettie	CV/J	2,400	3,264	100.0	100.0	3,264	0.12	392	0.45	1,469
SO 117 Johanna Maria	CV/J	6,600	8,976	100.0	100.0	8,976	0.12	1077	0.45	4,039
Total Cornelis Vrolijk/Jaczon								9,948		37,304
SCH 6 Alida	WvdZ	3,960	5,386	100.0	78.0	4,201	0.12	504	0.45	1,890
SCH 54 Franziska	WvdZ	7,648	10,401	77.6	100.0	8,071	0.12	969	0.45	3,632
SCH 303 Ariadne	WvdZ	2,650	3,604	100.0	100.0	3,604	0.12	432	0.45	1,622
SCH 333 Oceaan VII	WvdZ	3,714	5,051	100.0	100.0	5,051	0.12	606	0.45	2,273
SCH 302 Willem van der Zwan	WvdZ	7,920	10,771	100.0	49.0	5,278	0.12	633	0.45	2,375
Total Willem van der Zwan en Zonen								3,143		11,792
Total all members of the PFA								20,854		78,203

*As Norway is not part of the European Union, this vessel does not fall under the tax regime.

Chapter 3 Summary and conclusions

3.1 Summary of total direct and indirect support

The previous chapters have described the direct and indirect support from the EU and the governments of the EU member states to the three Dutch members of the PFA and their international subsidiaries. Because of a lack of transparency from the side of the EU and the companies of the PFA, in several cases we had to rely on estimates. Examples of information which is not (wholly) publicly available are the (non-vessel) beneficiaries of the FIG, the fuel consumption and fuel costs of the PFA vessels and the distribution of licences under the FPAs between the EU and Mauritania and Morocco. Still, the estimates presented in the report give a clear indication of the huge amounts of support provided to the EU fisheries sector as a whole and to the PFA members specifically.

Table 16 provides an overview of the direct support received by the PFA members. The table shows that especially under the FIG (1994-2006), the members have received a substantial amount of direct support. In total, the members of the PFA have received € 45.7 million under the FIG, of which € 44.4 was provided for pelagic (freezer) activities. For vessel construction and modernisation, the members of the PFA have received an average annual amount of € 1.6 million in the period 1994-2006, and for non-vessel activities they have received an average annual amount of € 1.9 million in this period.

The amount provided under the EFF (2007-2010) is lower: € 1.1 million in total, an average annual amount of € 0.4 million in the period 2007-2010. This lower amount is probably caused by the stronger focus on sustainable fishing methods of the direct fisheries fund of the EU. Also, the period of the EFF is much shorter than the FIG, and it is still possible that in the coming years of the EFF (2011-2013), the members of the PFA will receive more support from this instrument.

Table 16 Direct support for the members of the PFA

Type of direct support	Total support for the PFA (€ mln)	Period	Average annual support for the PFA (€ mln)
FIFG - vessels	21.2*	1994-2006	1.6
Provided by Germany	17.6		1.3
Provided by France	3.5		0.2
Provided by the UK	0.1		0.0
FIFG - other	24.5	1994-2006	1.9
Provided by Germany	21.0		1.6
Provided by the Netherlands	3.5		0.3
FIFG - total	45.7		3.5
EFF	1.1	2007-2010	0.4
Provided by Germany	0.75		0.3
Provided by the Netherlands	0.35**		0.1
Total	46.8		
Total (for pelagic activities)	45.5		

*including € 1.2 million for non-pelagic (freezer) vessels ** including € 0.2 million for non-pelagic (freezer) activities.

The indirect support for the PFA members is much higher than the direct support. Depending on the scenario used to estimate the exemption on excise duties on their fuel usage, between 2006 and 2011ⁱ the PFA members have received an estimated average annual amount of indirect support from the EU between € 47.3 million (Scenario 1) and € 104.6 million (Scenario 2).

Under the FPAs between the EU and Mauritania and Morocco, the EU provides an annual contribution to gain fishing licences for the members of the PFA and other fishing companies, enabling these companies to catch fish in Mauritania and Morocco. In total, the EU has paid € 626 million to secure these fishing licences between 2006 and 2012. The average annual benefit of these FPAs for the members of the PFA is € 26.4 million, of which the FPA with Mauritania (€ 18.5 million) yields the highest benefit.

A very large amount of indirect support was provided in the form of fuel tax exemptions: an estimated € 20.9 to € 78.2 million annually, depending on the different scenarios used to estimate the level of fuel tax exemption. The fuel used by the European fisheries sector is exempted from excise duties applied to fuel for other purposes, including road transport (gas oil) and heating purposes (heavy fuel oil). The lower range of the amount of indirect fuel support is probably an underestimation because it is largely compared to excises on fuel for heating purposes, which is generally taxed much less heavily than fuel for transport use. The tax exemption leads to relatively low fuel costs and therefore reduces the total costs of the fisheries companies, including the members of the PFA. In other words: this exemption enables the European fisheries sector to be more profitable in the short-term than it would otherwise have been.

ⁱ 2007-2011 in the case of the FPA between the EU and Morocco.

Table 17 Indirect EU support for the members of the PFA

Type of support	Average annual support for the PFA (€ mln)		Period
	Scenario 1	Scenario 2	
FPAs	26.4	26.4	
Of which: Mauritania	18.5	18.5	2006-2011
Morocco	7.9	7.9	2007-2011
Fuel tax exemption	20.9	78.2	2006-2011
Of which: P&P	7.8	29.1	
CV/J	9.9	37.3	
WvdZ	3.1	11.8	
Total	47.3	104.6	

3.2 Comparing support to revenues and profits

The direct and indirect support by the EU and EU member states to the members of the PFA, can be compared to their average annual revenues over the past few years. As shown in Table 18, annual average revenues of the members of the PFA were approximately € 490 million in the period 2007-2009, while profits were around € 55 million.

Table 18 Revenues and profits of the three PFA companies and their subsidiaries

Year	Parlevliet en van der Plas		Cornelis Vrolijk/Jaczon*		Willem van der Zwan en Zonen		Total PFA	
	Revenues(€ mln)	Profits (€ mln)	Revenues(€ mln)	Profits (€ mln)	Revenues (€ mln)	Profits (€ mln)	Revenues(€ mln)	Profits (€ mln)
2007	270.6	19.6	181.4	24.0	74.7	18.4	526.7	62.0
2008	278.0	22.6	181.4	24.0	77.7	10.3	537.1	56.9
2009	146.3	14.9	181.4	24.0	74.3	6.3	402.0	45.2
Average/year							488.4	54.7

*Estimate based on data for the most recent year for all processing subsidiaries of the group and all pelagic (freezer) trawler vessel owning subsidiaries of the group.

Source: Profundo, "Dutch pelagic freezer trawler companies", *Profundo*, May 2011.

Table 19 compares the direct and indirect EU support for the PFA members to their average annual revenues. Direct support received under the FIGG is excluded from this table because this support was provided in the period 1994-2006 which makes the numbers difficult to compare, even though the companies still benefit from this support. Only the support of the EFF is included in this table.

The direct support under the EFF represents 0.1% of the total annual revenues of PFA members. Indirect support represents between 9.7% (Scenario 1) and 21.4% (Scenario 2) of their revenues. Without the direct and (especially) the indirect support provided by the EU and the EU member states to the members of the PFA in the past few years, annual costs would have been much higher for these companies. Their average annual profit of € 54.7 million would have gone down significantly to an estimated profit of € 7 million (Scenario 1) or even a loss of € 50.3 million (Scenario 2).

Table 19 Support for the members of the PFA compared to revenues and profits

Type of support	Average annual support for the PFA (€ mln)	Period	% of annual revenues PFA 2007-2009	Annual profits PFA 2007-2009 without support (€ mln)
Direct (EFF)	0.4	2007-2010	0.1	$(54.7 - 0.4) = + 54.3$
Indirect: FPAs	26.4	2006-2011	5.4	$(54.7 - 0.4 - 26.4) = + 27.9$
Indirect: Fuel support (Scenario 1)	20.9	2006-2011	4.3	$(54.7 - 0.4 - 26.4 - 20.9) = + 7.0$
Indirect: Fuel support (Scenario 2)	78.2	2006-2011	16.0	$(54.7 - 0.4 - 26.4 - 78.2) = - 50.3$

3.3 Comparison to total support to EU fishery sector

Table 20 compares the EU support for the members of the PFA to the total support received by the whole EU fishery sector in the period researched. In the case of the FIGF, the members of the PFA have received at least 0.5% of the total support. The actual percentage could be even higher, because the non-vessel payments are not transparent. Given that the pelagic (freezer) trawlers of the PFA members only make up 0.04% of the 85,000 vessels of the EU fleet⁵³, it can be stated that the relative amount of support to the PFA under the FIGF is quite high.

In total, over the past few years the EU has paid € 158.3 million in contributions annually for the various fishing agreements it had in place with a total of 17 countries.ⁱ For the FPAs with Morocco and Mauritania the EU paid the highest contribution.⁵⁴ The members of the PFA have received a very high estimated share of the total support provided by the EU under all FPAs: 16.7%.

In the case of indirect fuel support, in the period 2006-2011 around 4.7% of the total annual support benefited the members of the PFA. This percentage is so high because the vessels of the members of the PFA are relatively large in size and consume a relatively high amount of fuel.

ⁱ The amount is based on all agreements the EU had in place in the second half of 2007. The agreements have time frames between 2003 and 2013.

Table 20 EU Support for PFA members compared to other parts of the EU fleet

Type of support	Measure	Support for the PFA (€ mln)	Support for other parts of the EU fishery sector (€ mln)	Total support (€ mln)	% PFA
Direct: FIGG	Total support	45.7	8,490.9	8,536.4	0.5
Direct: EFF	Total support	1.1	2,458.9	2,460.0*	0.0
Indirect: FPAs	Annual support (2006-2011 ¹)	26.4	131.9	158.3	16.7
Indirect: fuel exemptions Scenario 1	Annual support (2006-2011)	20.9	423.1	444**	4.7
Indirect: fuel exemptions Scenario 2	Annual support (2006-2011)	78.2	1,321.9	1,665**	4.7

* Total budget 2007-2013 is € 4.3 billion, so 2007-2010 estimated around € 2.46 billion.

** Based on total annual fuel consumption of the EU fleet of 3.7 billion litres (data for 2009) as indicated by Oceana. This amount is multiplied by € 0.12 in the first scenario and € 0.45 in the second scenario. The use of this comparison is limited, because we used a weighted excise of the countries in which the PFA members are active. The excises weighted by all EU countries will be (slightly) different. Oceana for example came to a tax weighted excise for 2009 of € 0.39 per liter.

Sources: Oceana, "The European Union and Fishing Subsidies", *Oceana*, September 2011, available at na.oceana.org/sites/default/files/reports/EU_Subsidies_Report_FINAL_FINAL.pdf;
 Europa, "European Fisheries Fund", *Website Europa* (europa.eu/legislation_summaries/maritime_affairs_and_fisheries/fisheries_sector_organisation_and_financing/166004_en.htm), viewed October 2011; OECD, "Review of Fisheries in OECD Countries: policies and summary statistics", *OECD*, 2005, available at books.google.nl/books?id=5vdI94B0PEcC&pg=PA213&lpg=PA213&dq=FIGG+budget+2.7+3.7&source=bl&ots=Ys03zqqsyn&sig=hNrHI8hxp1_2FqRz3fUjN29co8&hl=nl&ei=awWcTpeRH8qhOpOzmlkK&sa=X&oi=book_result&ct=result&resnum=1&ved=0CBwQ6AEwAA#v=onepage&q=FIGG%20budget%202.7%203.7&f=false; CFP Reform Watch, "International Fisheries and EU External Fleet", *CFP Reform Watch*, March 2010, available at www.cfp-reformwatch.eu/pdf/013.pdf

ⁱ 2007-2011 in the case of the FPA between the EU and Morocco.

Appendix 1 Sources for EFF beneficiaries per country

Netherlands

- Ministerie van Economische Zaken, Landbouw en Innovatie, “Overzicht EU-subsidies Gemeenschappelijk visserijbeleid boekjaar 2008”, Ministerie van Economische Zaken, Landbouw en Innovatie, April 2009, available at english.minlnv.nl/portal/page?_pageid=116,1640321&_dad=portal&_schema=PORTAL&p_file_id=37113
- LNV Loket, “Databank EU-subsidiegegevens van de landbouw en de visserij 2009; 2010”, *LNV Loket*, viewed October 2011, available at www.hetlnvloket.nl/portal/page?_pageid=122,2195803&_dad=portal&_schema=PORTAL&p_document_id=1856941&p_node_id=13499043&p_mode=

Germany

- Bundesanstalt für Landwirtschaft und Ernährung, “Empfänger EU-Fischereifonds”, Website Bundesanstalt für Landwirtschaft und Ernährung (www.agrar-fischerei-zahlungen.de/index.html), viewed October 2011.
- Additional source SkySail project: ABC News, “German fishing boat flies giant kite to save fuel”, ABC News, March 2010, available at www.abc.net.au/news/2010-03-09/german-fishing-boat-flies-giant-kite-to-save-fuel/357202

France

- Europe en France, “Liste des Bénéficiaires du FEP au 21 septembre 2010”, Website Europe en France (www.europe-en-france.gouv.fr/L-Europe-s-engage/pour-le-developpement-des-territoires-ruraux-et-une-politique-commune-de-la-peche/Politique-commune-de-la-peche), viewed October 2011.

UK

- Welsh Government, “List of EFF Beneficiaries for Wales (Last Updated 31/03/2011)”, Website Welsh Government (wales.gov.uk/topics/environmentcountryside/foodandfisheries/fisheries/europeanfundforfisheries1/effpublications/approvedprojects/;jsessionid=jkmQTN4LYnXHqInkGC5CsFJqdtmPnNfjPwR61cQ6v01vW1qGGwzy!-1980850920?lang=en), viewed October 2011.
- The Scottish Government, “EFF Awards: Transparency Initiative”, Website The Scottish Government (www.scotland.gov.uk/Topics/marine/grants-subsidies/awards/EFF), viewed October 2011
- DARD, “List of Beneficiaries for the United Kingdom - Northern Ireland - Last updated 24 May 2011”, Website DARD (www.dardni.gov.uk/index/fisheries-farming-and-food/marine_fisheries/fisheries-grants/eff/efftransparencyinitiative.htm), viewed October 2011

Lithuania

- Nacionalinė Mokėjimo Agentūra, “Lietuvos žuvininkystės sektoriaus 2007-2013 metų veiksmų programa”, Website Nacionalinė Mokėjimo Agentūra (portal.nma.lt/portal/page/portal/NMA%20Pages/par_viesinimas_full_list), viewed October 2011.

Spain

- El Ministerio de Medio Ambiente y Medio Rural y Marino, “Lista de Beneficiarios de La Financiación de la UE, A Través del Fondo Europeo de la Pesca”, *Website El Ministerio de Medio Ambiente y Medio Rural y Marino* (www.marm.es/en/pesca/temas/fondo-europeo-de-la-pesca/iniciativa-comunitaria-de-transparencia/), viewed November 2011.

Appendix 2 Calculations table FPA Mauritania

(A) Contribution by the EU (€ million)

These data are provided by the EU. In total, the EU will pay € 477 million in contributions to Mauritania under the FPA. Of this amount, € 87 million is provided to support the implementation of the national fisheries policy, including € 1 million per year for support for the Banc d'Arguin National Park (PNBA).⁵⁵

(B) Amount provided by the EU for exceeding quota small pelagic fish (€ million)

This amount is based on catches of small pelagic fish by the European pelagic freezer trawlers above the maximum amount specified in the protocol. Under the 2006 protocol, 440,000 tonnes of small pelagic fish could be caught by EU pelagic freezer trawlers annually, and this amount was not exceeded (see Table 21). Under the 2008 protocol, 250,000 tonnes could be caught, and this amount was exceeded at least two times. For each additional tonne caught by the pelagic freezer trawlers, the EU had to pay € 40. No data are yet available for the years 2010-11 and 2011-12. It is possible that in these years, the quota are exceeded as well.

Table 21 Amount to be provided for exceeding pelagic quotas

Year	Catch (tonnes)	Quota (tonnes)	% of the quota	Exceeding (tonnes)	Amount paid by the EU (€ mln) (=exceeding*€ 40)
2006-07	244,087	440,000	55	0	0.0
2007-08	199,105	440,000	45	0	0.0
2008-09	288,428	250,000	115	38,428	1.5
2009-10	347,346	250,000	139	97,346	3.9
2010-11	Unknown	250,000	Unknown	Unknown	Unknown
2011-12	Unknown	250,000	Unknown	Unknown	Unknown

Source: Oceanic Développement, MegaPesca, "Evaluation ex-post du protocole actuel d'Accord de Partenariat dans le domaine de la Pêche entre l'Union Européenne et la Mauritanie, Etude d'impact d'un possible future protocole d'Accord", *Oceanic Développement, MegaPesca*, March 2011, not publicly available.

(C) Total amount provided by the EU

This is the total amount of contributions (A) plus the amount which had to be paid because the quotas for small pelagic fish were exceeded (B).

(D) Benefit pelagic freezer trawlers (€ million)

This amount represents the annual amount paid by the EU to Mauritania under the FPA which benefits the European pelagic freezer trawler sector.

The FPA between the EU and Mauritania covers eleven fishing categories, of which pelagic freezer trawlers are one category. To calculate the annual amount paid by the EU to Mauritania under the FPA which benefits the European pelagic freezer trawler sector, we used the economic value of the fish caught by the European pelagic freezer trawlers and compared this amount to the economic value of all fish caught under the FPA between Mauritania and the EU. The economic value of the fish caught by the European pelagic freezer trawlers under the FPA is **49%** of the total economic value of all vessels which own licences under the FPA (see Table 22).

In addition, the amount provided by the EU because the quota for small pelagic fish was exceeded also benefits the European pelagic freezer trawlers.

Table 22 Economic value of the different categories under the FPA with Mauritania

Category	Name	Species	Avg. annual turnover 2006-2009 (€ mln)
1	Fishing vessels specialising in crustaceans other than crawfish and crab	Crustaceans	29.0
2	Black hake trawlers and bottom longliners	Demersal (Hake)	14.0
3	Vessels fishing for demersal species other than black hake with gear other than trawls	Demersal	4.8
4	Pelagic freezer trawlers fishing for demersal species	Demersal	0.0
5	Cephalopods	Cephalopods (Several species, including octopus)	39.0
6	Crawfish	Crustaceans	0.1
7	Freezer tuna seiners	Tuna	0.5
8	Pole-and-line tuna vessels and surface longliners	Tuna	6.3
9	Pelagic freezer trawlers	Small pelagics	91.4
10	Crab fishing	Crab	1.0
11	Non-freezer pelagic vessels	Small pelagics	0.3
Total			186.4
European pelagic freezer trawler sector (% of total)			49.0

Source: Oceanic Développement, MegaPesca, "Evaluation ex-post du protocole actuel d'Accord de Partenariat dans le domaine de la Pêche entre l'Union Européenne et la Mauritanie, Etude d'impact d'un possible future protocole d'Accord", *Oceanic Développement, MegaPesca*, March 2011, not publicly available.

The economic value per category was calculated by multiplying the annual catch in tonnes per category under the licences provided by Mauritania under the FPA by the relative prices of the fish species in the same year. Table 23 and Table 24 show the data which was used to calculate this number. The value of the different categories was calculated by Oceanic Développement and MegaPesca based on the different species caught by each category. Box 1 provides an example.

Box 1. In the year 2006, category 1 had a total catch of 4,398 tonnes. The price per tonne for this species in the same year was € 8,070. Multiplying these numbers yields an economic value of € 35.5 million. The same calculation yields € 38.5 million for 2007, € 24.6 million for 2008 and € 17.4 million for 2009. The average is € 29.0 million, the amount presented in Table 22.

Table 23 Catch volumes under the FPA between the EU and Mauritania, 2006-2009

Category	Name	Species	Catch under FPA (tonnes)			
			2006	2007	2008	2009
1	Fishing vessels specialising in crustaceans other than crawfish and crab	Crustaceans (Several species)	4,398	6,725	3,868	2,458
2	Black hake trawlers and bottom longliners	Demersal (Hake)	5,821	7,843	5,178	3,898
3	Vessels fishing for demersal species other than black hake with gear other than trawls	Demersal (Several species)	727	1,128	1,780	1,716
4	Pelagic freezer trawlers fishing for demersal species	Demersal	0	0	0	0
5	Cephalopods	Cephalopods (Several species, including octopus)	12,638	10,829	9,993	15,286
6	Crawfish	Crustaceans	10	15	0	0
7	Freezer tuna seiners	Tuna	978	342	163	0
8	Pole-and-line tuna vessels and surface longliners	Tuna	5,712	4,858	4,818	5,796
9	Pelagic freezer trawlers	Small pelagics	252,644	203,090	240,798	304,081
10	Crab fishing	Crab	53	190	128	163
11	Non-freezer pelagic vessels	Small pelagics	0	0	3,168	0
Total			282,981	235,020	269,894	333,398

Source: Oceanic Développement, MegaPesca, "Evaluation ex-post du protocole actuel d'Accord de Partenariat dans le domaine de la Pêche entre l'Union Européenne et la Mauritanie, Etude d'impact d'un possible future protocole d'Accord", *Oceanic Développement, MegaPesca*, March 2011, not publicly available.

Table 24 Prices of the different species, 2006-2009

Category	Name	Species	Estimated prices per ton (€)*			
			2006	2007	2008	2009
1	Fishing vessels specialising in crustaceans other than crawfish and crab	Crustaceans (Several species)	8,070	5,730	6,360	7,090
2	Black hake trawlers and bottom longliners	Demersal (Hake)	2,400	2,500	2,320	2,650
3	Vessels fishing for demersal species other than black hake with gear other than trawls	Demersal (Several species)	3,740	4,980	5,270	3,280
4	Pelagic freezer trawlers fishing for demersal species	Demersal	n/a	n/a	n/a	n/a
5	Cephalopods	Cephalopods (Several species, including octopus)	2,960	3,638	3,803	2,702
6	Crawfish	Crustaceans	2,000	2,000	2,000	2,000
7	Freezer tuna seiners	Tuna	1,150	1,350	1,360	0,950
8	Pole-and-line tuna vessels and surface longliners	Tuna	1,150	1,350	1,360	0,950
9	Pelagic freezer trawlers	Small pelagics	400	360	340	360
10	Crab fishing	Crab	8,480	9,000	6,240	6,640
11	Non-freezer pelagic vessels	Small pelagics	400	360	340	360

*Data based on several sources, including the government of Andalucia, OP Anacef, the port of Vigo, government of the Canary Islands, Industries.

Source: Oceanic Développement, MegaPesca, "Evaluation ex-post du protocole actuel d'Accord de Partenariat dans le domaine de la Pêche entre l'Union Européenne et la Mauritanie, Etude d'impact d'un possible future protocole d'Accord", *Oceanic Développement, MegaPesca*, March 2011, not publicly available.

(E). Benefit members PFA (€ million)

This amount represents the amount paid by the EU to Mauritania which benefits the members of the PFA.

The PFA issued a statement to the Dutch parliament in April 2011 in which it mentions that the PFA holds 8 of the 17 licences under the 2008 revised protocol of the FPA between the EU and Mauritania.⁵⁶ Therefore, we estimate that in the period 2008-2011 **47%** of the support for the pelagic freezer trawlers benefits the members of the PFA. This is the percentage used to calculate the numbers in Table 9 for the period 2006-2008. It is unknown how many of the 22 licences the PFA held before the revision of the protocol. Based on the same ratio as after the protocol, we estimate the PFA held 10 licences, which represents **45.5%**. This is the percentage used to calculate the numbers in Table 9. Box 2 provides an example.

Box 2. In the year 2006-07, total contributions of the EU which benefited the pelagic freezer trawlers were € 42.1 million. 45.5% of this amount yields € 19.2 million, the amount presented in Table 9.
In the year 2009-10, total contributions of the EU which benefited the pelagic freezer trawlers were € 41.1 million. 47% of this amount yields € 19.3 million, the amount presented in Table 9.

Appendix 3 Calculations table FPA Morocco

(A) Amount provided by the EU (€ million)

These data are provided by the EU. In total, the EU paid € 144 million in contributions to Morocco under the FPA. Of this amount, € 54 million is provided to support the Moroccan sectorial fisheries policy in order to promote sustainability in its fishing waters.⁵⁷

(B) Benefit pelagic freezer trawlers (€ million)

This amount represents the annual amount paid by the EU to Morocco under the FPA which benefits the European pelagic freezer trawler sector.

The FPA between the EU and Morocco covers six fishing categories, of which pelagic freezer trawlers are one category. To calculate the annual amount paid by the EU to Mauritania under the FPA which benefits the European pelagic freezer trawler sector, we follow the same approach as for the FPA between the EU and Mauritania (see Appendix 2). To calculate the annual amount paid by the EU to Morocco under the FPA which benefits the European pelagic freezer trawler sector, we used the economic value of the fish caught by the European pelagic freezer trawlers and compared this amount to the economic value of all fish caught under the FPA between Morocco and the EU. The economic value of the fish caught by the European pelagic freezer trawlers under the FPA is **68%** of the total economic value of all vessels which own licences under the FPA (see Table 25).

Table 25 Economic value of the different categories under the FPA with Morocco

Category	Name	Species	Avg. annual turnover 2007-2009 (€ mln)
1	Small-scale fishing/north: pelagic species	Small pelagics (especially anchovies and sardines)	3.6
2	Small-scale fishing/north	Demersal,	2.9
3	Small-scale fishing/south	Demersal	1.7
4	Demersal fishing	Demersal	0.8
5	Tuna fishing	Big pelagics (tuna)	0.7
6	Industrial pelagic fishing	Small pelagics (especially horse mackerel, Spanish mackerel, sardines)	20.6
Total			30.3
European pelagic freezer trawler sector (% of total)			68.0

Source: Oceanic Développement, MegaPesca Lda, "Evaluation ex-post du protocole actuel d'Accord de Partenariat dans le domaine de la Pêche entre l'Union Européenne et le Royaume du Maroc", *Oceanic Développement, MegaPesca Lda*, March 2010, not publicly available.

The economic value per category was calculated by multiplying the annual catch in tonnes per category under the licences provided by Morocco under the FPA by the relative prices of the fish species in the same year. Table 26 and Table 27 show the data which was used to calculate this number. The value of the different categories was calculated by Oceanic Développement and MegaPesca based on the different fish caught by each category. The table shows that even though categories 2, 3 and 4 are all fishing for demersal species, the price received for one tonne of fish still varies considerably, because different fish species are caught by the different categories.

Table 26 Catch volumes under the FPA between the EU and Morocco, 2007-2009

Category	Name	Species	Catch under FPA (tonnes)		
			2007	2008	2009
1	Small-scale fishing/north: pelagic species	Small pelagics (especially anchovies and sardines)	789	1,242	1,218
2	Small-scale fishing/north	Demersal,	431	656	631
3	Small-scale fishing/south	Demersal	316	442	427
4	Demersal fishing	Demersal	377	238	348
5	Tuna fishing	Big pelagics (tuna)	67	89	76
6	Industrial pelagic fishing	Small pelagics (especially horse mackerel, Spanish mackerel, sardines)	22,971	58,508	42,070
Total			24,951	59,934	43,553

Source: Oceanic Développement, MegaPesca Lda, "Evaluation ex-post du protocole actuel d'Accord de Partenariat dans le domaine de la Pêche entre l'Union Européenne et le Royaume du Maroc", *Oceanic Développement, MegaPesca Lda*, March 2010, not publicly available.

Table 27 Prices of the different species, 2007-2010

Category	Name	Species	Estimated prices per ton (€)*			
			2007	2008	2009	2010
1	Small-scale fishing/north: pelagic species	Small pelagics (especially anchovies and sardines)	3,140	3,930	2,790	2,460
2	Small-scale fishing/north	Demersal,	5,480	5,480	4,200	4,990
3	Small-scale fishing/south	Demersal	4,620	4,330	4,150	4,150
4	Demersal fishing	Demersal	2,450	2,290	2,590	2,590
5	Tuna fishing	Big pelagics (tuna)	2,500	2,500	2,500	2,500
6	Industrial pelagic fishing	Small pelagics (especially horse mackerel, Spanish mackerel, sardines)	550	550	550	550

* Data based on several sources, including the government of Andalusia, the government of the Canary Islands, Conil Association.

Source: Oceanic Développement, MegaPesca Lda, "Evaluation ex-post du protocole actuel d'Accord de Partenariat dans le domaine de la Pêche entre l'Union Européenne et le Royaume du Maroc", *Oceanic Développement, MegaPesca Lda*, March 2010, not publicly available.

(C). Benefit members PFA (€ million)

This amount represents the amount paid by the EU to Morocco which benefits the members of the PFA.

Data about the vessels which are authorised to fish under the FPA between the EU and Morocco are not transparent. Therefore, it is unknown how many of the 19 authorised vessels which are allowed to fish under the FPA between the EU and Morocco belong to the members of the PFA. However, it is known how many tonnes vessels from each country are allowed to catch annually. This is shown in Table 28. It does not mean that these amounts were actually caught by vessels from these countries, because all European vessels which hold licences together caught only 50% of the total authorised catch of 60,000 tonnes in 2007, 100% in 2008 and 70% in 2009 (data for 2010 are not yet known). At least until 2010, the French, Irish and German flagged vessels haven't used their quotas.⁵⁸ Vessels from Spain and Portugal only caught small quantities in the first year, and never came back. In 2009, one Dutch vessel caught 36% of the total catch in this year, while more than 50% was caught by the Baltic states.⁵⁹

We assume that all licences to Dutch pelagic freezer trawlers are for members of the PFA, because no other pelagic freezer trawler companies are active in this country. Also, we found evidence that these Dutch vessels have used (part of) their quota.⁶⁰ Therefore, we estimate that at least **32.3%** of the authorised catch under these licences benefits the PFA members. In addition, it is very likely that some of the licences for pelagic freezer trawlers under other flags (i.e. German, Lithuanian or French) also belong to the PFA. However, either because we did not find evidence that these vessels have used their quotas or because pelagic freezer trawlers other than those of the PFA members are active in these countries, we did not include the authorised catch of these countries in our calculation. Because we only include the Dutch vessels, the estimated authorised catch that benefits the PFA members (32.3%) is probably an underestimation.

Table 28 Authorised annual catch per country for European pelagic freezer trawlers

Country	Authorised catch (tonnage)	%
Dutch	19,400	32.3
Lithuanian	15,520	25.9
Latvian	8,730	14.6
German	4,850	8.1
Spain	400	0.7
France	2,267	3.8
Portugal	1,333	2.2
Ukraine	2,500	4.2
Ireland	2,500	4.2
Poland	2,500	4.2
Total	60,000	100.0

Source: Official Journal of the European Union, "COUNCIL REGULATION (EC) No 764/2006 of 22 May 2006 on the conclusion of the Fisheries Partnership Agreement between the European Community and the Kingdom of Morocco", *Official Journal of the European Union*, 29 May 2006, available at eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:141:0001:0003:EN:PDF

Appendix 4 Calculations table indirect fuel support

(A) Fuel consumption 2006-11 (average per year)

These numbers represent the average annual fuel consumption (in 1,000 liters), per vessel, in the period 2006-2011. Most amounts are estimated, using the following data:

- Total fuel costs in 2007 and 2008 of the vessels KW 170 Annie Hillina, KW 172 Dirk Diederik and KW 174 Annelies Ilena, as given in the annual reports of the subsidiaries which own these vessels. These fuel costs are presented in Table 29.

Table 29 Fuel costs

Vessel	2007 (€)	2008 (€)
KW 170 Annie Hillina	1,315,657	1,624,847
KW 172 Dirk Diederik	1,861,911	2,301,512
KW 174 Annelies Ilena	4,318,692	4,744,619

Source: Kilda BV, "Annual Report 2008", *Kilda BV*, November 2009; Fladen Gronden BV, "Annual Report 2008", *Fladen Gronden BV*, November 2009; Vikingbank BV, "Annual Report 2008", *Vikingbank BV*, November 2009.

- The capacity of fuel storage tanks for different types of fuel (either heavy fuel oil or gas oil) of several vessels of the members of the PFA. For the vessel Annelies Ilena, for which the total fuel costs are known, the capacity for different types of fuel is summarised in Table 30.

Table 30 Capacity of fuel storage tanks Annelies Ilenaⁱ

Vessel	Heavy fuel oil (tonnes)	Gas oil (tonnes)	Total (tonnes)	% heavy fuel	% gas oil
KW 174 Annelies Ilena	3,914	234	4,148	94.4	5.6

Source: Norske Skipsverft, "M/V "ATLANTIC DAWN"", *Website Norske Skipsverft* (www.nssm.no/boats/Atlantic%20Dawn.HTM), viewed October 2011.

Unfortunately, the capacity of fuel storage tanks for the vessels Dirk Diederik and Annie Hillina, the two other ships for which the total fuel costs are available, are unknown. Therefore, we have used the capacities of three other ships of the fleet of the PFA which are comparable in size to estimate the storage capacities of these two ships.

ⁱ In this report, a conversion rate of 930 kg/m³ was used for heavy fuel oil, and a conversion rate of 835 kg/m³ was used for gas oil, see Appendix 5.

Table 31 Fuel types of other known ships

Vessel	Heavy fuel oil (tonnes)	Gas oil (tonnes)	Total (tonnes)	% heavy fuel oil	% gas oil
ROS 171 Maartje Theadora	2,037	217	2,254	90.4	9.6
SCH 72 Frank Bonefaas	1,001	624	1,625	61.6	38.4
H 171 Cornelis Vrolijk Fzn	1,209	167	1,376	87.9	12.1
Average				80.0	20.0

Source: Factorias Vulcano, "MAARTJE THEADORA", *Website Factorias Vulcano* (www.factoriasvulcano.com/catalogo/fishing_vessel/486/CBP0486.pdf), viewed October 2011; KNVTS, "Hektrawler Frank Bonefaas", *Website KNVTS* (www.knvt.nl/S&W%20archieff/Hektrawler%20Frank%20Bonefaas.pdf), viewed October 2011; SWZ Online, "Hektrawler 'SCH 171' Cornelis Vrolijk Fzn", *Website SWZ Online* (www.swzonline.nl/swz-archieff/S&W%20archieff/Hektrawler%20SCH%20171%20Cornelis%20Vrolijk.pdf), viewed October 2011.

It is assumed that the ships Annie Hillina and Dirk Diederik have a capacity for 80% heavy fuel oil and 20% gas oil, the average of the three other ships for which the capacity of fuel storage tanks is known. It is also assumed that the fuel tanks of the vessels are constructed in such a way that the vessel will utilise both types of fuel at the same rate, i.e. that when a ship will return to a port to refuel, both the heavy fuel oil and gas oil tanks will be empty.

- The bunker prices of heavy fuel oil and gas oil in 2007 and 2008. We used the prices in the port of Rotterdam as an approximation, because prices for this port were publicly available. The prices in other European ports, including other Dutch ports and Las Palmas, are roughly equal.⁶¹

Table 32 Bunker prices in the port of Rotterdam (€ per ton)

Type	2007	2008
Heavy fuel oil (IFO 380)	238	307
Marine gas oil (MGO)	420	581

Source: Maritime Union Of Australia (MUA), "Investment In Shipping", Maritime Union Of Australia (MUA), 12 May 2008, available at www.aph.gov.au/house/committee/itrdlg/coastalshipping/subs/sub53.pdf; Notteboom, T., "Fuel surcharge practices of container shipping lines: Is it about cost recovery or revenue-making?", *IAME 2009 conference Copenhagen*, 24-26 June 2009, available at www.iame2009.org/fileadmin/user_upload/pdf-files/Presentations/5._Competition_in_the_Maritime_Sector/5-28_presentation.pdf.

With these data, we calculated the total fuel consumption in tonnes for the three ships Annie Hillina, Dirk Diederik and Annelies Ilena, in 2007 and 2008. This was done by dividing the total annual fuel costs by the average bunker price the vessels had to pay in the same year. The total amount of tonnes were then converted to liters (in 1,000s). The calculations for the three ships are presented in Boxes 3, 4 and 5 below.

Box 3. Annelies Ilena: 94.4% (proportion heavy fuel oil, see Table 30) * 307 (bunker price heavy fuel oil in 2008, see Table 32) + 5.6% (proportion gas oil) * 581 (bunker price gas oil 2008) = € 322.34. This is the average fuel price for this vessel in 2008. Total fuel costs (see Table 29) divided by this price yields 14,719 tonnes of consumption in 2008.

The same calculation yields 17,408 tonnes in 2007. Therefore, the average fuel consumption of Annelies Ilena in the years 2007 and 2008 is 16,064 tonnes. Converting this amount to liters yields 17,349 (*1,000 liters*), the amount presented in Table 15.

Box 4. Dirk Diederik: 80% (proportion heavy fuel oil, see Table 31) * 307 (bunker price heavy fuel oil in 2008, see Table 32) + 20% (proportion gas oil) * 581 (bunker price gas oil 2008) = € 361.8. This is the average fuel price for this vessel in 2008. So total fuel costs (see Table 29) divided by this price yields 6,361 tonnes of consumption in 2008.

The same calculation yields 6,785 tonnes in 2007. Therefore, the average fuel consumption of Dirk Diederik in the years 2007 and 2008 is 6,573 tonnes. Converting this amount to liters yields 7,230 (*1,000 liters*), the amount presented in Table 15.

Box 5. Annie Hillina: 80% (proportion heavy fuel oil, see Table 31) * 307 (bunker price heavy fuel oil in 2008, see Table 32) + 20% (proportion gas oil) * 581 (bunker price gas oil 2008) = € 361.8. This is the average fuel price for this vessel in 2008. So total fuel costs (see Table 29) divided by this price yields 4,491 tonnes consumption in 2008.

The same calculation yields 4,795 tonnes in 2007. Therefore, the average fuel consumption of Annie Hillina in years 2007 and 2008 is 4,643 tonnes. Converting this amount to liters yields 5,107 (*1,000 liters*), the amount presented in Table 15.

It is assumed that the average fuel consumption of these ships for the years 2007 and 2008 is a good representation of the years 2006-2011.

For the remainder of the ships, we estimated the annual fuel consumption based on the size of the ships, represented by their main engines. All engine data were taken from the EU Fleet Register. We used the information summarised in Table 33 for this calculation. This table shows that, although the relationship is not linear, vessels which are larger in size (based on their main engines) consume more fuel. On average, the three ships used *1.36 (1,000 liters) per KW*.

Table 33 Engine size and fuel consumption

Vessel	Engine size (KW)	Fuel consumption (1,000 liters)	Liters (<i>1,000s</i>) per KW
KW 170 Annie Hillina	2,863	5,107	1.78
KW 172 Dirk Diederik	6,600	7,230	1.10
KW 174 Annelies Ilena	14,400	17,349	1.20
Average			1.36

By multiplying this fuel consumption per KW by the engine size of all other ships, the annual fuel consumption of all other vessels was calculated. Box 6 provides an example.

Box 6. Atlantic Peace: Engine size 2,427 KW * 1.36 = 3,301 (1,000 liters), the amount presented in Table 15.

(B). Fishing in the EU/Africa 2006-11 (average per year)

This amount, presented in percentages, gives the average annual time spent by a vessel in fishing waters where the vessels bunker in ports of the European Union in the period 2006-2011.

If vessels are fishing within the waters of the EU, they bunker in ports which are covered by the tax exemption regime of the EU. Also, it is assumed that when the vessels fish in West-Africa, they bunker in Las Palmas, or possibly Gibraltar/Algericas, which are also part of the EU (Spain), and are therefore covered by the tax regime. It is also possible that the vessels bunker at sea, but the bunker companies which supply the vessels with fuel at sea also originate (largely) from Las Palmas, so therefore no distinction was made. However, some of the vessels of the PFA are also active outside the waters of the EU and West Africa, especially in the Pacific Ocean. In this case, we assume that the vessels bunker outside the EU. The fuel consumption in these areas therefore is not covered by the tax regime of the EU.

For each vessel, we calculated the average annual percentage per year a vessel is fishing in the waters of the EU and West Africa. These estimations are based on information supplied by Greenpeace, which were taken from satellite data (including Lloyds vessel tracking list and AIS) supplemented with public data. These tables indicate per month, for the years 2006-2011, where a vessel has been fishing. Box 7 provides an example.

Box 7. Fishing waters: If a vessel was in 2006 fishing for 3 months in the EU, for three months in West Africa and for 3 months in the Pacific (the remaining 3 months in port or unknown), for this year the vessel was fishing for 66.7% in areas covered by the EU tax regime. The same calculation is performed for the years 2007-2011, and an average is taken over these six years to come to the numbers summarised in Table 15.

(C) Activity

This amount, presented as a percentage, gives the activity of a specific vessel in the period 2006-2011. The closer this percentage is to 100, the more active a vessel has been.

If the information supplied by Greenpeace indicates that a vessel has been 'in port' for at least six consecutive months, we account for this in the activity percentage. The percentage is calculated by dividing the number of months a vessel has been active (not 'in port') by the total number of months of the researched period, and then multiplying by 100. Box 8 gives an example.

Box 8. Willem van der Zwan: This vessel was inactive for 37 consecutive months (end 2006 until end 2009), so active for 35 months. $35/72 = 0.49 * 100 = 49\%$, the amount presented in Table 15.

If vessels have been inactive for less than six consecutive months, this is not incorporated in the activity percentage. This is because when calculating fuel consumption, we already accounted for the fact that vessels do not fish all days of the year.

(D) Fuel consumption in the EU 2006-2011 (average/year)

This amount gives the total annual average amount of fuel consumption per vessel (in 1,000 liters), which is consumed in areas which are covered by EU tax exemptions. The amount is calculated by multiplying the total fuel consumption of a vessel (A) by the percentage of fishing in the areas which are covered by EU tax exemptions (B) and the activity percentage (C). Box 9 gives an example.

Box 9. Jan Maria: Total fuel consumption of this vessel is 8,160 (1,000 liters). On average this vessel is fishing for 65.3% a year in the areas which are covered by EU tax exemptions. The activity is 92%, so fuel consumption in the EU is 8,160 (1,000 liters) * 65.3% * 92% = 4,902 (1,000 liters), the amount presented in Table 15.

(E) Fuel exemption EU 2006-2011 (average/year)

This amount gives the annual average fuel tax exemption (in euros) in the EU countries where the PFA members are active, for the period 2006-2011. We assume that the pelagic (freezer) trawlers of the members of the PFA on average use 80% heavy fuel oil and 20% gas oil (see Table 30). Both types of fuel are exempted from taxes by the EU when used for marine transport. To calculate the indirect fuel support by the EU, we use two approaches:

Scenario 1. Comparing the fuel consumption of the pelagic (freezer) trawlers of the members of the PFA to excise duties on gas oil for road transport and to excise duties on heavy fuel oil for heating purposes. For heavy fuel oil, no comparison to other transport modes could be made, because heavy fuel oil is not used for other kinds of transport than sea transport;

Scenario 2. Comparing all fuel consumption of the pelagic (freezer) trawlers of the members of the PFA to the excise duty which member states should apply to the use of gas oil for road transport. This is for example the approach used by Oceana in its report "The European Union and Fishing Subsidies" dated September 2011.

Both approaches are described below:

Scenario 1. The EU set the minimum excise duty which member states should apply to the use of heavy fuel oil for heating use at € 0.015 per liter. The excises range considerably between EU countries. Table 34 presents the average annual tax excise on heavy fuel oil for heating use per liter per country. We weighted the average excise per country by the amount of vessels of the PFA which operate under the flag of this country, to come to a vessel-weighted tax exemption for the PFA of € 0.04 per liter.

Table 34 Excises heavy fuel oil for heating per liter, 2006-2011

Country	2006-2011 average excise (€)	Vessels PFA under flag of this country end 2008	%
France	0.02	3	8.8
Germany	0.02	6	17.6
Ireland	0.04	1	2.9
Lithuania	0.05	2	5.9
Netherlands	0.03	14	41.2
United Kingdom	0.10	7	20.6
Norway (not in EU)	0.00	1	2.9
Vessel-weighted tax exemption (€)	€ 0.04	34	100.0

Source: European Commission, "Oil Bulletin, History from 2005 onwards", Website European Energy Commission (ec.europa.eu/energy/observatory/oil/bulletin_en.htm), viewed October 2011.

The EU set the minimum excise duty which member states should apply to the use of gas oil for road transport at € 0.33 per liter. The excises range considerably between EU countries. Table 35 presents the average annual tax excise on automobile gas oil per liter per country. We weighted the average excise per country by the amount of vessels of the PFA which operate under the flag of this country, to come to a vessel-weighted tax exemption for the PFA of € 0.45 per liter.

Table 35 Excises automotive gas oil per liter, 2006-2011

Country	2006-2011 average excise (€)	Vessels PFA under flag of this country end 2008	%
France	0.43	3	8.8
Germany	0.47	6	17.6
Ireland	0.43	1	2.9
Lithuania	0.29	2	5.9
Netherlands	0.42	14	41.2
United Kingdom	0.68	7	20.6
Norway (not in EU)	0.00	1	2.9
Vessel-weighted tax exemption (€)	€ 0.45	34	100.0

Source: European Commission, "Oil Bulletin, History from 2005 onwards", Website European Energy Commission (ec.europa.eu/energy/observatory/oil/bulletin_en.htm), viewed October 2011.

Because the vessels of the PFA on average use 80% heavy fuel oil and 20% gas oil, the tax exemption under Scenario 1 is $0.2 * € 0.45 + 0.8 * € 0.04 = € 0.12$ per liter.

Scenario 2. In this approach, the excise duties applied to automotive gas is compared to all fuel consumption of the vessels of the PFA, including heavy fuel oil and gas oil. As shown in Table 35 the vessel-weighted tax exemption under Scenario 2 is **€ 0.45 per liter**.

(F) EU support 2006-2011 (average/year)

This amount gives the average annual amount of indirect fuel support in the period 2006-2011 (in 1,000 euros). This amount is calculated by multiplying the fuel consumption in areas which are covered by EU tax exemptions (D) by the vessel-weighted tax exemption (E). For estimates 1 and 2 (see above), different numbers are presented.

Box 10 gives an example.

Box 10. Maartje Theodora: Fuel consumption in areas covered by EU tax exemptions is 5,017 (1,000 liters) * 0.12 (the vessel-weighted tax exemption per liter using the first estimate) yields 602 (1,000 euros), the amount presented for the first scenario in Table 15.

5,017 (1,000 liters). 5,017 (1,000 liters) * 0.45 (the vessel-weighted tax exemption per liter using the second estimate) yields 2,258 (1,000 euros), the amount presented for the second scenario in Table 15.

Appendix 5 Conversion factors used

Fuel	Density - ρ -		Specific Volume - v -	
	(kg/m ³)	(lb/ft ³)	(m ³ /1000 kg)	(ft ³ per ton)
Anthracite	720 - 850	45 - 53	1.2 - 1.4	42 - 50
Bituminous coal	690 - 800	43 - 50	1.2 - 1.5	45 - 52
Butane (gas)	2.5			
Charcoal, hard wood	149	9.3	6.7	240
Charcoal, soft wood	216	13.5	4.6	165
Coke	375 - 500	23.5 - 31	2.0 - 2.7	72 - 95
Diesel 1D		54.6		
Diesel 2D		53		
Diesel 4D		59.9		
Gas oil	835	52	1.2	43
Gasoline		44.9		
Fuel Oil No.1		54.6		
Fuel Oil No.2		57.4		
Heavy fuel oil	930	58	1.1	36
Kerosene	790	49.9	1.3	47
Natural gas (gas)	0.7 - 0.9			
Peat	310 - 400	19.5 - 25	2.5 - 3.2	90 - 115
Propane (gas)	1.7			
Wood	360 - 385	22.5 - 24	2.5 - 2.8	90 - 10

Source: The engineering toolbox, available at www.engineeringtoolbox.com/fuels-densities-specific-volumes-d_166.html

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