Ministerie van Economische Zaken

NLD

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Summary of report

The report deals with the year 2012.

The fleet for fisheries has a total of 738 vessels, 276.197 kW and 128.779 GT.
The fleet for aquacult. has a total of 104 vessels, 54.509 kW and 16.382 GT.

Changes: -2 Pelagic trawlers; +4 Beamtr 12-24 m: -13.076 kW and -7.004 GT.

Fleet management: by a system of governmental fishing licences.
Entry/exit and effort is managed on a national level.
Percentage used effort was 98,7%.

The main fleet has four segments;
the species caught most (up to 80% of total) in 2012 were:
- 12-24 m BT: North Sea shrimp (75%), Sole (7%);
- 24-40 m BT: Plaice (54%), Sole (16%), Herring (6%), Dab (5%);
- 24-40 m TR: Plaice (27%), Tub Gurnard (10%). Dab (10%), Horse mackerel (7%), Cod (7%), Whiting (6%), Red mullet (4%), Mackerel (4%), Bib (3%), Squid (3%).
- >40m Pelagic: Herring (34%), Horse mackerel (30%), Eur. pilchard (11%), Blue whiting (10%).

Landed volumes complied with agreed quota.

Balance indicators

Economic and social indicators 2012	**12-24mBT**	**24-40mBT**	**24-40mTR**	**>40mPel**	**Total fleet**
Economic:					
- Revenue over Break Even Revenue:	1,17	1,9	1,27	0,19	0,97
- Return on investment (%):	3	10,9	5,5	-13,9	-1,2
Social:					
- Average Crew wage (euro/FTE):	35.500	53.700	46.600	70.600	53.000
- GVA (million euro):	29,3	54,0	13,7	26,4	130,3
- GVA per FTE (euro):	58.800	103.800	79.000	59.800	73.600
- GVA per active vessel (euro):	167.500	642.600	392.600	2.202.400	239.500

Inactive vessels: <10m:34%, 10-18m:72%, 18-24m:8%, 24-40m:28%, >40m:12%.

Sustainable Harvest indicator (weighted F/F_{max}):
Pelagic fleet:0,83; large beamtrawl:0,76; small beamtrawl:0,21; other dermersal:0,36.
There is no fishing on stocks at risk.

Statement on balance of fleet capacity and fishing opportunity.
The overall fleet capacity is approximately in balance with opportunities, but the economic indicators of the pelagic fleet indicate the existence of imbalance. The fishing possibilities of the pelagic fleet are reduced due to decreasing TAC's and decreasing possibilities to fish in waters outside EU. The outlook is that the TAC's are increasing again. However, the performance of the pelagic freezer trawler fleet(s) should better be judged on an EU scale than on a national scale, because the ship owners move their vessel to and from states - or inside and outside EU-waters - with more fishing opportunities. A decrease or increase in capacity in The Netherlands does therefore not reflect a change on EU-scale.

1 Fleets.

1.1 Description of fleets.

The main fleet (Mfl) is segmented in two parts: Mfl1 are the vessels that target species with individual catch quota and Mfl2 are the vessels that target species with no individual catch quota (e.g. North Sea shrimps). Aquaculture vessels (Aqu) harvest mussels and oysters.

Table 1.1. Number of vessels.

	2012	**2011**	**2010**
Main fleet	**738**	**736**	**737**
Mfl1	512	514	512
cutters	*500*	*500*	*500*
freezetrwl	*12*	*14*	*12*
Mfl2	226	222	225
Aquaculture	**104**	**102**	**104**

1.2 Link with fisheries.

The Mfl1-segment mainly consists of beam trawlers, of which some also have a licence for shrimp fisheries. In addition, a group of vessels with TR-gear that focuses on demersal fishing for plaice, sea bass, mullet and gurnard. Within this segment there is also fisheries on Neophrops and squid.

The Mfl2-segment mainly consists of cutters that fish shrimps and some that fish sea bass, mullet and gurnard. The Mfl2 segment contains mostly small vessels, mostly fishing within the coastal zone.
Only 20 of the 226 vessels in this category have a tonnage greater than 100 GT and an engine with an output of over 221 kW.

The aquaculture vessels operate on mussel and oyster plots within the baselines and are therefore exempted from the entry/exit regime.

1.3 Development in fleets.

	The Netherlands 2012	GT		kW	
1	Capacity of the fleet on 01/01/2003	GTFR	**183,669**	kWFR	**418,521**
2	Capacity level for the application of the entry-exit regime	GT 04	184,802	kW 04	421,243
3	Entries of vessels of more than 100 GT financed with public aid	GT100	0	kW100	0
4	Other entries or capacity increases (not included in 3 & 5)		55,424		105,690
5	Increases in tonnage GT for reasons of safety	GTS	213		
6	**Total entries (3 + 4 + 5)**		**55,637**		**105,690**
7	Exits before 1/1/2007 financed with public aid	GTa1	9,155	kWa	36,613
8	Exits after 1/1/2007 financed with public aid	GTa2	9,971		33,894
9	Other exits (not included in 7 and 8)		91,059		159,558
10	**Total exits (7 + 8 + 9)**		**110,185**		**230,065**
11	Power of engines replaced with public aid conditional to power reduction		0	kWr	0
12	**Capacity of the fleet on 31/12/2012 (1+6-10)**	GTt	**129,121**	kWt	**294,146**
13	**Fleet ceiling on 31/12/2012**	GTt	**166,859**	kWt	**350,736**
	Reference level on 31/12/2012	GTt	**178,691**	kWt	**417,302**

1.4 Development in engine power (kW) and gross tonnage (GT)

	kW 31 Dec 2012	kW + or – 2011	kW + or – 2011		GT 31 Dec 2012	GT + or – 2011	GT + or - 2011
Main fleet	276.197	-13.076	-4,5%		128.779	-7.004	-5,2%
Mfl1	239.582	-14.227	-5,6%		118.860	-7.351	-5,8%
cutters	*165.897*	*-7.863*	*-4,5%*		*49.244*	*-2.547*	*-4,9%*
freezetrwl	*73.685*	*-6.364*	*-8,0%*		*69.616*	*-4.804*	*-6,5%*
Mfl2	36.615	1.151	3,2%		9.919	347	3,6%
Aquaculture	54.509	1.146	2,1%		16.382	264	1,6%

2 Effort reduction

2.1 Statement of effort reduction schemes.

The Netherlands manages the available effort nationally. It is not managed at the level of individual vessels, because that would lead to high administrative burdens and out of fear that it would start trade in effort. To get access to a gear category a vessel must be in possession of track records.

2.2 Impact on fishing capacity of effort reduction schemes.

In the table below we have summarised the final total effort uptake by the different gear groups in the Netherlands in 2012.

Effort group	Effort after transfers*	Used kW days	Percentage used effort
TR1	1.259.606	1.221.984	97,0
TR2	1.932.441	1.790.323	92,7
TR3	36.617	15.433	42,1
BT1	999.808	984.807	98,5
BT2	22.004.242	21.930.037	99,7
GN	338.664	284.416	84,0
total	**26.571.378**	**26.227.000**	**98,7**

* 6.303.634 kW days were taken from the BT2 effort group for transition of 2.101.211 kW days (3:1) to the TR1 and TR2 group. In December there was a transfer of 100.000 kW days from GN for 85.543 days to TR1.

2.3 Statement of compliance with entry/exit scheme and with level of reference.

The system of fishing licenses has functioned satisfactorily and the actual capacity of the fleet has never been above the allowed fleet ceiling and reference level. Moreover, there is still considerable space between the fleet size and the fleet ceiling: for GT 23% and for kW 16%, and space between fleet size and reference level is: for GT 28% and for kW 30% (see also table in chapter 1.3).

3 Fleet management system

The system of fishing licenses is used as fleet regulating system. Fishing licenses are not transferable property of the operator, but are linked to the vessel and are regulated by the government. The Dutch government manages the system of licenses with the self-built programs 'VIRIS'.

The Dutch authorities have implemented a restrictive policy regarding the provision of safety tonnage. Since 2003, in total 213 BT was allocated to safety tonnage. Since 2008 decommissioning is no longer part of the Dutch fleet policy.

The licences are property of the national authorities. They are issued temporary to vessel-owners as a utility-permit for as long as the vessel-owner wants to utilise the vessel as a fishing vessel. When the vessel is sold to another fisherman, the licence has to be returned to the national authorities and is subsequently re-issued by the national authorities to the new owner of the vessel. If the vessel is being taken out of the fleet with public aid, the licence is taken in by the national authorities and scrapped indefinite.
If the vessel is being taken out of the fleet without public aid, the licence has to be returned to the national authorities. The former owner receives a sort of 'letter of preference'; i.e. for a period of 6 years the former owner has the preferential right to re-enter the fleet with a vessel of the same (or less) capacity. In that case the national authorities will renew the licence and grant the right to use it to the former owner of the vessel. However, the national authorities are allowed to refuse this when they have legitimate reasons. But the former owner of the vessel may bring that refuse to court for a decision whether his legitimate expectations prevail over the 'reasons' of the national authorities or not.

3.1 Summary of weaknesses & strengths of fleet management system.

Strength is that it provides vessel owners (more) possibilities to switch fishing techniques and so more flexible operations. Given the current economic situation in fisheries, this flexibility is necessary.

3.2 Plans for improvement in fleet management system.

The fleet management system functions satisfactorily. It is continuously adjusted to the new developments.

3.3 Information on general level of compliance with fleet policy instruments.

Fleet management was fully in compliance.

3.4 Information on changes of the administrative procedures relevant to fleet management.

In 2012 there were no changes in the administrative procedures.

4 Economic and social indicators for the Dutch demersal and pelagic fleet segments

There were 741 vessels in the Dutch fleet in 2012. From these vessels 544 were considered active and 298 vessels cumulated about 96% of the landings value. The other 443 vessels are mainly smaller vessels operating in small scale fisheries or inactive vessels. The small scale fleet represents about 4% of the total value of landings. They are a heterogeneous group of vessels with many vessels classified as inactive (often vessels with quota associated to them).

The economic and vessel use indicators in this chapter have been calculated using the new formulas in *Guidelines for analysis of the balance between fishing capacity and fishing opportunities according to Art. 22 of Regulation 1380/2013 of the European Parliament and the Council on the Common Fisheries Policy (COM(2014)545).* The social indicators have been calculated according the former guidelines of 2012.

4.1 Economic and social indicators

The economic indicators of the **Dutch fleet** show an annual return of investment close to the real interest rate suggesting that normal returns are being generated and a ratio of revenue over break-even revenue is on average above 1 which indicates that the Dutch fleet is viable. The value of the ratio decreased in 2012 to value below 1.The social indicators are positive with the average crew share above the Dutch average salary[1] and a gross value added (GVA) of more than 130 million euro.

Table 4.1: Economic and social indicators total fleet*

	2008	2009	2010	2011	2012
Economic indicators:					
Ratio revenue over Break_Even Revenue	1.16	1.05	1.02	1.05	0.97
Return On Investment (%)	4.2	3.4	2.3	1.3	-1.2
Social Indicators:					
Average Crew wage (thousand euro/FTE)	43.6	41.5	42	40.7	53
Gross Value Added (million euro)	154.6	141.1	144	128.5	130.3
Gross Value Added per FTE (thousand euro)	70.4	66	65.5	66.7	73.6
Gross Value Added per vessel* (1000 euro)	271.7	243.3	252.7	230.3	239.5

* only active vessels are used here

[1] Average Dutch wage is around 41 k€/year
http://statline.cbs.nl/StatWeb/publication/?DM=SLEN&PA=81096eng&D1=2-3,7&D2=0&D3=0,%28l-15%29-l&LA=EN&VW=T

The fleetsegment **beamtrawlers shorter than 24 meters** fish mainly for shrimps (more than 75% of their fishing revenue in 2012). The value of return of investment for the small beamtrawlers suggest that extraordinary profits were made in 2008 and 2012 (because of high shrimp prices) but that the segment is in overcapitalisation between 2009 and 2011 (negative return on investment). The ratio of current revenue over break-even revenue shows a high value in 2012 that indicates that the segment is economically viable in this year. The average crew wage is higher than the Dutch minimum salary[2] and Dutch average wage[i] . The GVA of the small beamtrawlers is positive, indicating that the fleet has a value for society, in addition, the GVA per FTE is higher than the average crew wage, meaning that the labour costs are covered. Depreciation and opportunity cost of capital are also covered in the fleet that show a positive net profit for 2012 (but a negative net profit in the years before 2012).

Table 4.2: Economic and social indicators beamtrawls <24 metres

	2008	2009	2010	2011	2012
Economic indicators:					
Ratio Revenue over Break_Even Revenue	1.24	0.62	0.77	0.58	1.17
Return On Investment (%)	6.8	-4.8	-2.7	-7.5	3
Social Indicators:					
Average Crew wage (thousand euro/FTE)	31.3	26.5	30.4	22.6	45.5
Gross Value Added (million euro)	31.7	20	21.3	13.7	29.3
Gross Value Added per FTE (thousand euro)	45.4	28.5	35.7	22.7	58.8
Gross Value Added per vessel* (1000 euro)	173	110.6	118.6	79.3	167.5

The **large beamtrawlers** fish mainly flatfish, sole and plaice representing more than 70% of the value of their landing in 2012. The return on investment is positive and above the real rate of interest suggesting that extraordinary profits are made and that the segment is under-capitalised. The current revenue is higher than the break-even revenue which indicates a viable segment. The social indicators show that the average crew wage is higher than the average Dutch salary[i] . The GVA of the large beam trawler is positive and contributes to 40 of the total GVA for the Dutch fleet.

Table 4.3: Economic and social indicators beamtrawls >24 metres

	2008	2009	2010	2011	2012
Economic indicators:					
Ratio Revenue over Break_Even Revenue	1.2	1.4	1.7	1.4	1.9
Return On Investment (%)	4.5	8.3	12.2	5.7	10.9
Social Indicators:					
Average Crew wage (thousand euro/FTE)	42.8	44.3	45.1	47.7	53.7
Gross Value Added (million euro)	49.7	63.4	65.8	45.6	54.0
Gross Value Added per FTE (thousand euro)	80.0	88.4	98.9	86.2	103.8
Gross Value Added per vessel* (1000 euro)	523.0	646.8	685.2	562.8	642.6

[2] Minimum Dutch salary is about 18 k€/year bruto in 2013
http://www.rijksoverheid.nl/onderwerpen/minimumloon/vraag-en-antwoord/hoe-hoog-is-het-minimumloon.html

The **demersal trawl fleet segment** shows high returns on investment and break-even revenues. The average crew wage is highly variable from year to year and was above average wage in the Netherlands in 2012[i]. The GVA of the demersal fleet is positive and contributes to around 11% of the total GVA for Dutch fleets.

Table 4.4: Economic and social indicators demersal fleet

	2008	2009	2010	2011	2012
Economic indicators:					
Ratio Revenue over Break_Even Revenue	1.22	1.07	1.23	1.99	1.27
Return On Investment (%)	7	4	7.1	20.5	5.5
Social Indicators:					
Average Crew wage (thousand euro/FTE)	36.6	33.7	37.8	38.5	46.6
Gross Value Added (million euro)	13.1	9.8	12.2	16.3	13.7
Gross Value Added per FTE (thousand euro)	52.6	54	63.1	80.8	79
Gross Value Added per vessel* (1000 euro)	353.5	304.8	330.8	417.8	392.6

The **pelagic fleet** has sustained a calculated loss every year over the period 2008-2012 with negative gross profits. But because the pelagic fleet is vertically integrated in companies the calculated losses do not mean that the sector is unprofitable: the prices used to calculate revenue are "theoretical" prices as the fish is not sold in auction, but traded directly by the companies. However we do not take into account the revenue of final transformed product because their prices are unknown to us, but the revenue at "first sale". To reach break-even revenue the average price of fish landed by pelagic fleets would need to be 6 % (2008) to 31% (2012) higher than the price used in our calculation.

The economic indicators show negative return on investment and very low ratio of revenue over break-even revenue indicating that the fleet is over-capitalised and non-viable.
The crew wage is higher than the average Dutch salary[i] and the GVA is positive and contributes to almost 20% of the total Dutch GVA.

Table 4.5: Economic and social indicators pelagic fleet

	2008	2009	2010	2011	2012
Economic indicators:					
Ratio Revenue over Break_Even Revenue	0.85	0.61	0.52	0.54	0.19
Return On Investment (%)	0	-1.7	-4.7	-7.8	-13.1
Social Indicators:					
Average Crew wage (thousand euro/FTE)	71.2	61	65.2	56.7	70.6
Gross Value Added (million euro)	48.8	36	38.2	35.6	26.4
Gross Value Added per FTE (thousand euro)	96	71.7	76.1	71	59.8
Gross Value Added per vessel* (1000 euro)	3751.3	2769.2	3184.9	2740.7	2202.4

4.2 Vessel use indicators

Different fleets show different level of activity.
The part of the fleet with most inactive vessels are the 12-18m vessels and the inactivity of this category is increasing. Other size categories are remaining stable at around 10-12% of KW for small scale (0-10m), 5-8% for 18-24m, 15% for 24-40m, and 4% for larger vessels.

Table 4.6: Percentage inactive per vessel length category in terms of vessel number, KW and tonnage

	Vessels					KW					Tonnage				
Year	**08**	**09**	**10**	**11**	**12**	**08**	**09**	**10**	**11**	**12**	**08**	**09**	**10**	**11**	**12**
<10 m	26%	24%	30%	32%	34%	10%	10%	16%	13%	12%	5%	4%	9%	6%	8%
12-18m	58%	67%	69%	67%	72%	52%	59%	63%	62%	71%	43%	57%	56%	53%	64%
18-24m	4%	6%	6%	9%	8%	3%	5%	5%	8%	8%	3%	5%	4%	6%	7%
24-40m	24%	25%	25%	28%	28%	12%	15%	16%	19%	15%	15%	17%	18%	19%	16%
>40m	13%	12%	13%	9%	12%	5%	4%	4%	3%	4%	3%	3%	3%	2%	2%

Looking at the utilisation of the active fleet in terms of fishing effort:

- the small scale vessels are largely underutilised, at around 20% of the KWdays of the maximum observed effort. Which comes from very heterogeneous levels of effort in the fishery (note that days at sea are real 24h days so for small scale fleets with day trips 3 x 8 hours trip would make a day).
- The smaller beam trawlers also have very heterogeneous levels of activity in the fleet.
- The large beam trawls are close to the 70% limit for all year and the years when the indicators are below the limit are years with particularly high maximum seadays.
- The demersal fleet is well utilised between 80 to 90% of maximum seadays.
- The utilisation of pelagic fleet has decreased considerably over the last years, but there is heterogeneity in the fleet with some vessels having very high levels of effort (maximum days at sea above 280 for all years).

Table 4.7. Ratio between actual per vessel effort deployed and observed maximum effort in KW- and GT-days

		2008	2009	2010	2011	2012
Small scale	**Observed max days**	138	136	105	140	134
	Technical indicator (KW)	0.26	0.26	0.23	0.17	0.09
	Technical indicator (GT)	0.51	0.5	0.44	0.36	0.03
Beamtrawls <24m	**Observed max days**	304	204	183	198	196
	Technical indicator (KW)	0.35	0.53	0.57	0.46	0.61
	Technical indicator (GT)	0.39	0.58	0.62	0.51	0.66
Beamtrawls >24m	**Observed max days**	216	240	249	258	217
	Technical indicator (KW)	0.75	0.69	0.69	0.67	0.79
	Technical indicator (GT)	0.74	0.69	0.69	0.67	0.79
Demersal	**Observed max days**	184	182	173	163	181
	Technical indicator (KW)	0.87	0.77	0.86	0.89	0.88
	Technical indicator (GT)	0.85	0.78	0.88	0.9	0.92
Pelagic	**Observed max days**	320	280	314	301	342
	Technical indicator (KW)	0.75	0.64	0.65	0.61	0.48
	Technical indicator (GT)	0.76	0.62	0.66	0.62	0.48

5 Biological sustainability indicators for the Dutch demersal and pelagic fleet segments

Annex 1 presents an overview of the important landed fish species calculated as the percentage of weight and value. It shows that for the beamtrawl fleet in 2012 a limited number of species, namely brown shrimp and sole for the small beamtrawl fleet, and, sole, plaice, turbot and herring for the large beamtrawl fleet, account ≥80% of the value of all their landings. For the 'other demersal fisheries' the number of species determining ≥80% of the value of all landings is higher; red mullet, plaice, tub gurnard, horse mackerel, cod, Norway lobster, sole, mackerel, sea bass, dab and whiting. For the pelagic fleet the valuable species are horse mackerel, herring, mackerel and pilchards.

Two indicators (i.e. Sustainable Harvest indicator and Stock-at-risk indicator) are used to assess whether the Dutch fleet is relying on overfished stocks, or is involved in causing a high biological risk to a depleted stock (see Annex 2 and 3 for a more detailed explanation of the biological sustainability indicators). Calculation of the indicators depends heavily on the availability of quantified scientific advice for the fish stocks in question. Due to this constraint and the lack of advice for many species, the Dutch fleet is divided into two fleet segments, namely a demersal and a pelagic segment. It is necessary to mention that this results in the loss of detailed information about the Dutch fleet. For example, there is no information about the diversity in gear and fishing method (i.e. large and small beamtrawlers, and flyshooters), or periodical diversity (i.e. shrimp-targeted fishery, flatfish-targeted fishery).

5.1 Sustainable Harvest indicator

The Sustainable Harvest indicator is a measure of how much a fleet segment relies on stocks that are overfished in reference to the fishing mortality at maximum sustainable yield (F_{msy}). Values of the indicator above 1 indicate that a fleet segment is, on average, relying for its income on fishing opportunities which are structurally set above levels of exploitation corresponding to maximum sustainable yield (MSY). This is considered an indication of an imbalance when it occurs for three consecutive years. A shorter time period should be considered in the case of small pelagic species.

For the Sustainable Harvest Indicator the F/F_{msy} ratio for each species is weighted by the relative landings of each species. If a fleet segment is catching a greater part of the total landings of a species, then that species is also more important in the calculation of the indicator. If the indicator is greater than 1, the fleet segment is actually catching more fish than preferred. If the indicator is smaller than 1 the fishing mortality is smaller than is preferred in relation to MSY. A more detailed explanation about the Sustainable Harvest indicator can be found in Annex 2.

The Sustainable Harvest indicator score of the pelagic fleet segment for 2012 (Table 1) is 0.82, and for the demersal fleet segment (large and small beamtrawl, and 'other demersals') in 2012 it is 0.55 (Table 2a-b-c).

Table 5.1: Sustainable Harvest indicator for the Dutch pelagic fleet segment in 2012. Based on the species that contribute ≥80% of the value of all their landings.

Fish species pelagic	**Value of landings** (EUR)	**F**	**F_{msy}**	**(F/F_{msy})**	**Weighted F/F_{msy}**
Horse mackerel (West)	32.162.821	0.19	0.13	1.46	0.51
Herring (North Sea)	9.236.962	0.09	0.27	0.34	0.03
Herring (North)	402.458	0.18	0.25	0.72	0.00
Herring (Atlantic)	17.969.219	0.15	0.15	1.00	0.20
Mackerel	9.246.108	0.19	0.25	0.76	0.08
Pilchard	8.644.564	/	/	No assessment	No assessment
Sustainable Harvest indicator					**0.83**

Table 5.2: Sustainable Harvest indicator for the Dutch large beamtrawl fleet segment in 2012. Based on the species that contribute ≥80% of the value of all their landings

Fish species large beamtrawl	**Value of landings** (EUR)	**F**	**F_{msy}**	**(F/F_{msy})**	**Weighted F/F_{msy}**
Sole	67.602.271	0.24	0.22	1.09	0.52
Plaice	34.056.178	0.23	0.25	0.92	0.22
Turbot	11.042.427	/	/	No assessment	No assessment
Herring (North Sea)	7.563.253	0.09	0.27	0.34	0.02
Sustainable Harvest indicator					**0.76**

Table 5.3: Sustainable Harvest indicator for the Dutch small beamtrawl fleet segment in 2012. Based on the species that contribute ≥80% of the value of all their landings

Fish species small beamtrawl	**Value of landings** (EUR)	**F**	**F_{msy}**	**(F/F_{msy})**	**Weighted F/F_{msy}**
Brown shrimp	44.301.727	/	/	No assessment	No assessment
Sole	11.796.469	0.24	0.22	1.09	0.21
Sustainable Harvest indicator					**0.21**

Table 5.4: Sustainable Harvest indicator for the Dutch 'other demersals' fleet segment in 2012. Based on the species that contribute ≥80% of the value of all their landings

Fish species 'other demersals'	**Value of landings** (EUR)	**F**	**F_{msy}**	**(F/F_{msy})**	**Weighted F/F_{msy}**
Red mull	4.704.191	/	/	No assessment	No assessment
Plaice	4.148.972	0.23	0.25	0.92	0.13
Tub gurnard	2.929.375	/	/	No assessment	No assessment
Horse mackerel (North Sea)	2.013.488	/	/	No assessment	No assessment
Cod	1.952.830	0.39	0.19	2.05	0.14
Norway lobster	1.943.866	/	/	No assessment	No assessment
Sole	1.529.995	0.24	0.22	1.09	0.06
Mackerel	1.079.107	0.19	0.25	0.76	0.03
Sea bass	975.605	/	/	No assessment	No assessment
Dab	884.295	/	/	No assessment	No assessment
Whiting	844.106	/	/	No MSY	No MSY
Sustainable Harvest indicator					**0.36**

None of the Dutch fleet segments have a Sustainable Harvest Indicator higher than 1. However, not all of the stocks harvested by the fleet segments could be taken into account for the calculation. It should be noted that the calculation of this indicator depends on the availability of quantified scientific advice for the stocks in question. In cases where more than 60% of the value of the catch is made up of stocks for which values of F and F_{msy} are unavailable the indicator is deemed to be unavailable (DG Fisheries and Maritime Affairs Guidelines).

5.2 Stock-at-risk indicator

The Stock-at-risk indicator is used for situations where stocks at high levels of biological risk are being exploited. In this context "exploited" means that the stock in question accounts for more than 10% of the catches of the fleet, or that the fleet takes more than 10% of the total catches of the stock. This indicator is a measure of how many stocks are being affected by the activities of the fleet segment that are biologically vulnerable. In other words, the amount of stocks that are at low levels and are at risk of not being able to replenish themselves, but are at the same time an important part of the catches of the fleet segment or where the fleet segment contributes largely to the overall effects of fishing on the stock. If a fleet segment has an impact on one or more stocks at high biological risk, this is an indicator of a potential imbalance.

If a fleet segment takes more than 10% of its catches from a stock which is at high biological risk, this is treated as an indication of an imbalance. For this calculation, a stock at high biological risk means a stock which is falls into one or more of the following categories (status of the stock in 2012):

A. Assessed as being below Blim biological level; or,
B. Subject to an advice to close the fishery, to prohibit directed fisheries, to reduce the fishery to the lowest possible level, or similar advice from an international advisory body, even where such advice is given on a data-limited basis; or,
C. Subject to a fishing opportunities regulation which stipulates that the fish should be returned to the sea unharmed or that landings are prohibited; or,
D. A stock which is on the IUCN "red list" or is listed by CITES.

For both the pelagic fleet (Table 3) and the demersal fleet (Table 4) no stocks are being exploited at high levels of biological risk.

Table 5.5: Stock-at-risk indicator for the Dutch pelagic fleet segment in 2012.
Stocks included are those that account for more than 10% of the catches of the fleet, or that the fleet takes more than 10% of the total catches of the stock.
Definitions of A-B-C-D are described in the text above.

Fish stock pelagic	A	B	C	D	Stock at high biological risk (Y/N)
Herring North Sea (IV, IIIa and VIId)	0	0	0	0	N
Herring (VIa North)	0	0	0	0	N
Horse mackerel (West)	0	0	0	0	N

Table 5.6: Stock-at-risk indicator for the Dutch demersal fleet segment in 2012.
Stocks included are those that account for more than 10% of the catches of the fleet, or that the fleet takes more than 10% of the total catches of the stock.
Definitions of A-B-C-D are described in the text above.

Fish stock demersal	A	B	C	D	Stock at high biological risk (Y/N)
Sole (IV)	0	0	0	0	N

Annex 1: Important fish species for the Dutch fleet

Table a: Important fish species for the Dutch fleet in 2012 in **value**
(contributing to ≥ 80% of the total value of landings for each fleet segment).

Demersal fleet			**Pelagic fleet**
Beamtrawl (BT)		**Other demersals (TR)**	
12-24 meters	**>24 meters**	**>24 meters**	**>40 meters**
Total value: 61.190.720 EUR	Total value: 142.266.416 EUR	Total value: 28.744.401 EUR	Total value: 91.370.514 EUR
Brown shrimp (72%)	*Sole (47%)*	*Red mullet (16%)*	*Horse mackerel (35%)*
Sole (19%)	*Plaice (24%)*	*Plaice (14%)*	*Herring (30%)*
	Turbot (8%)	*Tub gurnard (10%)*	*Mackerel (10%)*
	Herring (5%)	*Horse mackerel (7%)*	*European pilchard (9%)*
		Cod (7%)	
		Norway lobster (7%)	
		Sole (5%)	
		Mackerel (4%)	
		Sea bass (3%)	
		Dab (3%)	
		Whiting (3%)	

Table b: Important fish species for the Dutch fleet in 2012 in **weight**
(contributing to ≥80% of the total weight of landings for each fleet segment).

Demersal fleet			**Pelagic fleet**
Beamtrawl (BT)		**Other demersals (TR)**	
12-24 meters	**>24 meters**	**>24 meters**	**>40 meters**
Total weight: 17.285.227 kg	Total weight: 45.924.745 kg	Total weight: 11.400.811 kg	Total weight: 240.006.053 kg
Brown shrimp (75%)	*Plaice (54%)*	*Plaice (27%)*	*Herring (34%)*
Sole (7%)	*Sole (16%)*	*Tub gurnard (10%)*	*Horse mackerel (30%)*
	Herring (6%)	*Dab (10%)*	*European pilchard (11%)*
	Dab (5%)	*Horse mackerel (7%)*	*Blue whiting (10%)*
		Cod (7%)	
		Whiting (6%)	
		Red mullet (4%)	
		Mackerel (4%)	
		Bib (3%)	
		Squid (3%)	
		Norway lobster (2%)	

Annex 2: Sustainable Harvest indicator

Sustainable Harvest indicator

This indicator reflects the extent to which a fleet segment depends on overfished stocks. Here, "overfished" means that a stock is fished above F_{msy}, the fishing mortality rate corresponding to maximum sustainable yield (MSY). Data requirements are: full biological assessments of the stocks fished, i.e. where current fishing mortality has been determined; estimates of F_{msy}, or existing proxies to it (F_{max} or $F_{0.1}$) and the value of the catch of each stock taken.

Where a fleet segment fishes a single stock, the indicator is calculated as:

$$\frac{F}{Fmsy}$$

where F is the most recent value of fishing mortality available from scientific assessment (i.e. ICES advice) and F_{msy} is the fishing mortality at maximum sustainable yield (MSY). This relation is similar to the previous indicator F/F_t, (F_t is the targeted fishing mortality, i.e. from the management plan) the difference being that F_{msy} is now used as the standard objective in the Common Fisheries Policy.

The indicator has been extended to cover fleets active in different fisheries (during the year) and mixed-fisheries situations. When a fleet segment catches fish of a number of species (n) then the indicator is an average of the indicator above for each stock (i), weighted by the landings of that stock (L_i). The indicator is calculated as:

$$\frac{\sum_{i=1}^{i=n} Vi \frac{Fi}{Fmsyi}}{\sum_{i=1}^{i=n} \sum Vi}$$

where F_i = most recent value of fishing mortality of stock i available from scientific assessment (i.e. ICES advice), $F_{msy,i}$ = fishing mortality at maximum sustainable yield of stock i, V_i = value of the landings of stock i caught by the Dutch fishing fleet.

This indicator performs in the same way whether the fleet segment makes catches from different stocks in the same fishing operations or whether this occurs in a sequence of different targeted fisheries within the same fishing year.

It should be noted that the calculation of this indicator depends on the availability of quantified scientific advice for the stocks in question. In cases where more than 60% of the value of the catch is made up of stocks for which values of F and F_{msy} are unavailable the indicator is deemed to be unavailable (DG Fisheries and Maritime Affairs Guidelines). Additionally, at present the indicator is not weighted by the actual TAC the Netherlands obtains each year. We recommend that such an approach is considered in the future as the relative part of the fishing mortality caused by the Dutch fleet on a certain species can then be delineated.

Annex 3: Stock-at-risk indicator

Stock-at-risk indicator
The Sustainable Harvest indicator does not identify cases where stocks are being exploited at high levels of biological risk.

As a complementary indicator to identify such situations, the Stock-at-risk indicator counts the number of stocks currently assessed exploited by the fleet in question as being at high biological risk. In this context, "exploited by" means that the stock(s) at high risk each make up more than 10% of the catches of the fleet, or that the fleet takes more than 10% of the catches of the stock.

For this calculation, a stock at high biological risk means a stock which is either:

A. assessed as being below the Blim biological level; or,
B. subject to an advice to close the fishery, to prohibit directed fisheries, to reduce the fishery to the lowest possible level, or similar advice from an international advisory body, even where such advice is given on a data-limited basis; or;
C. subject to a fishing opportunities regulation which stipulates that the fish should be returned to the sea unharmed or that landings are prohibited; or
D. a stock which is on the IUCN "red list" or is listed by CITES.

(The status of the stock should be considered in a logical timeframe. For instance, only the status of these stocks in 2012 were considered for this report.)

This can be expressed, for each fleet segment catching n stocks of fish, as:

$$\sum_{i=1}^{i=n} (1\ if\ (Ci > 0.1Ct)\ or\ (Ci > 0.1Ti); otherwise\ 0)$$

where C_i= catch of stock i, C_t = total catch of all stocks taken by the fleet segment, T_i = total catch of stock i taken by all segments, for n stocks that fall into any one of categories A. to D. above.

Annex 4: References

ICES advice reports 2012, these are available at the ICES website http://standardgraphs.ices.dk/stockList.aspx

DG Fisheries and Maritime Affairs Guidelines for analysis of the balance between fishing capacity and fishing opportunities. (COM(2014)545 final; 2.9.2014)