

FISHERY COUNTRY PROFILEFood and Agriculture
Organization of the United
Nations

FID/CP/NLD

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2005**PROFIL DE LA PÊCHE PAR PAYS**Organisation des Nations
Unies pour l'alimentation et
l'agriculture**RESUMEN INFORMATIVO
SOBRE
LA PESCA POR PAISES**Organización de las Naciones
Unidas para la Agricultura y la
Alimentación**THE KINGDOM OF THE NETHERLANDS****GENERAL ECONOMIC DATA**

Area:	41 548 km ²
Shelf area (to 200 m):	63 200 km ² approximately
Length of coastline (metropolitan only):	367 km approximately
Population (2003):	16 million
GDP (2003):	US\$511.6 billion
PCE (2003):	US\$26 310
Agricultural GDP (2003):	2.7% of GDP

FISHERIES DATA**Commodity balance (2001):**

	Production	Imports	Exports	Stocks variations	Total food supply	Per caput supply
	ton live weight					kg/year
Fish for direct human consumption	453 321	777 585	921 706	71 486	380 686	23.8

Non-food uses	116 905	-	-	-	-
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Estimated employment (2002):	
(i) Fish production sector:	2 650
(ii) Fish auctions:	400
(iii) Aquaculture sector:	350
(iv) Processing and wholesale sector:	8 120
(v) Marketing:	5 000
Landings sea and coastal fisheries:	US\$597 million
Shellfish fisheries (mussels only):	US\$86 million
Inland fisheries:	US\$8 million
Aquaculture (freshwater):	US\$39 million
Trade (2003):	
(i) Value of imports:	US\$1 701 million
(ii) Value of exports:	US\$2 826 million

STRUCTURE AND CHARACTERISTICS OF THE FISHING INDUSTRY

The professional fisheries consist of marine (offshore and inshore), and inland fisheries and aquaculture (molluscs and fish). In 2002, the Dutch sea fishing fleet consisted of 511 seagoing vessels, cutters, stern freezers and vessels for shellfish harvesting. The sea fishing fleet registered under a Dutch banner had a total capacity of two hundred thousand GT and a power of 394 thousand kilowatt.

The marine fisheries are concentrated in the North sea and the north-eastern part of the Atlantic ocean. The trawlers from Scheveningen and the cutters from Urk account for the bulk of the production. Total turnover and volume of landings by the cutters fishery at the Dutch fish auctions in 2002 was 471 million US\$ and 80 000 tons, the major species being flatfish (sole and plaice) and shrimps. The stern trawlers landed a total 368 thousand tons valued at US\$162 million.

Marine fisheries

Marine fisheries is the most important sector in The Netherlands' fishing industry.

Cutter fishery

The most important species for the cutter fishery are flatfish and in particular sole and plaice.

1000 tons per species	1997	1998	1999	2000	2001	2002
Sole	11	16	16	15	14	12
Plaice	33	30	39	34	33	26
Other flatfish	10	9	13	9	8	7
Cod	10	13	7	5	3	4
Whiting	2	2	1	2	2	2
Herring/mackerel	10	8	8	8	5	9
Shrimps	12	10	12	10	13	10
Other fish	12	10	10	9	9	10
Total	100	98	106	92	87	80
Source: LEI-DLO						

Stern trawlers

Landings	1997	1998	1999	2000	2001	2002
Tonnage ('000 tons)	315	345	340	376	420	368
Value (million US\$)	125	146	141	146	154	162
Source: LEI-DLO						

The most important species are sardinella and horse mackerel in African waters and horse mackerel, mackerel, herring and blue whiting in European waters.

Landing sites

While there are 11 fish auctions there is a tendency to cooperate more between auctions. It is expected that in the long term no more than five or six auctions will be operational. The turnover at the Dutch fish auctions varied significantly over the last six years. A large proportion of the total turnover (approximately 30 percent) comes from landings of foreign vessels. Many of these vessels have Dutch crew.

Value of landings by fish auction (US\$ million)

Site	1997	1998	1999	2000	2001	2002
Urk	133	147	165	156	157	141
IJmuiden	71	67	66	62	59	52
Den Helder	52	57	64	66	63	52
Goedereede	44	44	44	44	44	40
Harlingen	37	43	57	53	62	11
Lauwersoog	36	76	46	44	45	37
Vlissingen	41	37	40	44	44	40
Scheveningen	27	27	26	27	26	21
Breskens	13	13	13	13	19	17
Den Oever	10	13	19	14	22	15
Colijnsplaat	9	10	12	10	12	9
TOTAL (US\$ million)	475	501	553	535	552	471
by foreign vessels	137	142	160	156	164	138
Source: LEI-DLO						

Fishing units

The fleet is composed of cutters, stern freezers and vessels for shellfish harvesting. The cutters land fresh fish mostly dover sole, plaice, cod, whiting, herring and shrimps. The fish is caught during sea trips varying in length from one or two days to one week. With 393 vessels fishing mostly as beam trawlers, the cutters still comprise the majority of the Dutch fishing fleet but the number of vessels has steadily decreased from around 600 in the seventies. This also effected the employment on these vessels, which reduced from 3 000 crew in the late eighties to 1 746 in 2002.

At the same time the sizes and power of the cutters increased dramatically. Average vessel power is now averaging 745 kW, with a total fleet power of 293 000 kW. Around 15 percent of the companies own more than one vessel. The following type of cutters can be distinguished:

* vessels up to 224 kW targeting shrimps, flatfish and other round fish;

* vessels between 224 and 820 kW targeting mixed flatfish, cod and herring; and

* vessels with more than 820 kW that target flatfish only.

The distant water fleet consists of seventeen trawlers accounting for a total power of 101 000 kW and 90 000 GT. Stern freezer trawlers distinguish themselves from cutters by:

- * their size;
- * targeted species;
- * fishing grounds;
- * processing on board (freezing); and
- * other activities (such as transport and cargo).

The capacity measured in power increased by two thirds in the five years to 2002. These vessels undertake seas trips of four to six weeks in the Atlantic Ocean. Half total effort was deployed in front of the West African coast. They mostly target herring, mackerel, horse mackerel, sardinella and blue whiting. About 600 people work on this fleet. The average power is 8 000 kW. Most of these vessels are registered in the Southern part of the Netherlands. About three quarters of the landings consist of frozen fish. The two most important products are frozen herring and horse mackerel.

Shellfish harvesting vessels are mostly used by the mollusc cultivation sector. Seventy-nine vessels with an average power of 500 kW are registered for the mussel culture. Rather flat vessels with one trawl on either side collect the mussels. Cockle vessels will dredge the bottom to a depth of four to five centimetres. The larger cockles are cleaned by a high-pressure water jet and retained on board. In 2000, there were 33 vessels registered for the cockle fishery. Of these only 14 were active.

Main resources

The major target species for the cutter fishery are flatfish and in particular sole and plaice. Other important species are shrimp, cod, whiting and herring. The stern trawlers target pelagic fish such as horse mackerel, mackerel, blue whiting and herring. Sardinella, which is caught mostly off the coasts of Africa, has only recently become important.

Fishery areas

The most important fishing grounds for the cutter fishery is the Southern North Sea. Just over 50 percent of all effort by stern trawlers was deployed in African waters. The Celtic sea and the English Channel accounted for 25 percent.

Inland fisheries

Inland waters in the Netherlands measure some 270 000 hectares, of which the most important water body is the Lake IJssel. Other important water bodies are the lakes Veerse, Grevelingen, Lauwer and parts of the southern rivers. Competition between professional fishers and sports fishers has led to a system of division of fishing rights and licenses, with the exception of Lake IJssel where professional fishermen have priority. The fishery on lake IJssel yielded about 2 100 tons in 2002 valued at US\$8 million. The most important species by value are eel and pikeperch.

Aquaculture

Marine farming in the Netherlands is dominated by mussel culture on designated culture grounds in the delta of Zeeland, particularly in the Eastern Scheldt, and the Wadden Sea. Some 51 companies in 2002 produced in total 45 000 tons, representing a total value of some US\$86 million. Production stands currently at about half the level of the late nineties. About thirty enterprises are involved in the oyster sector Culture fishery and trade) which

is concentrated around the village of Yerseke in Zeeland. Production is currently at around 1.5 million pieces of flat oyster and 30 million cupped oysters with a total value of 6.5 million US\$.

Freshwater fish produced for consumption in the Netherlands include eel (3 900 tons), African catfish (2 600 tons), trout (40 tons) and small quantities of turbot, seabass and seabream. In addition some 600-800 metric tons of trout are produced for angling purposes. There is a small farming industry for ornamental fish, which enjoys a growing interest from the gardening industry.

UTILIZATION OF THE CATCH

Fish consumption

Fish consumption is relatively low in the Netherlands. Total expenditure on fish and fish products in 2003 was estimated at US\$1.2 billion. This represents an average per household consumption of US\$164 and per capita consumption of US\$71. In terms of value the top two products are salted herring and smoked salmon. In terms of volume fresh mussels are the top product sold.

Processing

In 2000, some 280 companies processed fish in the Netherlands. The gross turnover is around US\$2.3 billion. The sector is not particularly concentrated, with medium sized companies accounting for two thirds of total turnover. The four biggest companies accounted for only 20 percent. Total employment is estimated at 7 000. The industry processes about 300 000 tons of fish and shellfish. About 75 percent of the production by value is exported, mostly to other EU countries.

A further 120 companies acted as wholesale importers. The turnover of wholesale companies that do not process fish was US\$0.9 billion.

	Companies (percent)	Turnover (percent)
Processing		
Round and flat fish	31	38
Herring	8	7
Smoking (salmon, eel)	8	4
Shrimps	2	15
Shellfish	11	11
Wholesalers (national)	19	12
Sea frozen pelagic fish	2	12
Others	19	1

Total	280 companies	US\$2.3 billion
Wholesale/importers	120 companies	US\$0.9 billion

Fish markets

Supermarkets sell half of all fish products being sold while retail shop account for approximately 30 percent. The balance is sold in open-air markets and by street vendors. These figures differ considerably in accordance with the product sold. Nearly exclusively supermarkets sell frozen fish. However approximately two thirds of fresh fish and shellfish are sold in specialized retail shops.

FISHERY SECTOR PERFORMANCE

Economic role

From the perspective of the national economy, the fishery sector is only of marginal importance. The gross added value of fisheries, including fish processing was only just over 0.1 percent of the gross domestic product.

Supply and demand

Fish accounts for approximately 7.3 percent of the average daily protein intake of Dutch (7.8 g per day per capita). This is less than provided by meat (30.2 g per day per capita), milk (28.7 g per day per capita) and cereal (excluding beer, 19.4 g per day per capita) protein sources. The Netherlands have a per capita supply of 24.5 kg per year of fish and fish products, which is less than the supply of meat (86.8 kg per capita per year), milk and cereal. The supply mainly comes from demersal species (11.5 kg per capita per year) and crustaceans (9.6 kg per capita per year).

Trade

The Netherlands is one of the few EU member States with a positive trade balance in fisheries products. In 2002 it imported 641 000 tons valued at US\$1.6 billion while the exports amounted to US\$2.5 billion. Frozen fish accounts for a third of all imports in value and over half in tonnage. Most imports originate from the EU and more particularly from the neighbouring countries (Germany, the UK, Denmark and Belgium).

Frozen fish accounts for just over 40 percent of all exports by value. About 80 percent of all exports go to other EU countries. The major EU markets are Belgium, Germany, France, and Italy.

Employment

Total employment in the fisheries sector production, processing and marketing is estimated 16 100 in the year 2000. Employment in the fish production sector (cutter and stern trawl fishery and the shellfish fishery) has been relatively stable the last years at 2 650 persons.

	1998	1999	2000	2001	2002
Cutter fishery	1 858	1 825	1 831	1 775	1 746
Stern trawl fishery	462	516	600	573	586

Total sea fishery	2 320	2 341	2 431	2 348	2 332
Mussel culture	225	229	220	214	208
Cockle fishery	70	66	64	64	60
Oyster fishery	50	52	50	50	50
Total	2 665	2 688	2 765	2 674	2 650

Most employment however, is in the processing, wholesale and retail marketing. This was estimated to be 7 070, 1 050 and approximately 5000 respectively in 2000.

FISHERY SECTOR STATUS AND DEVELOPMENT

State of the fishing industry and constraints

The offshore and coastal fisheries sector in the Netherlands is of little importance to the national economy. However, the political interest in fisheries policies is relatively significant due to past problems in enforcement of EU fisheries quota's and interests in the effects of fisheries on the ecosystem. In applying EU fishery policies, the Dutch government was confronted with enforcement problems and sought solutions in more strict and detailed regulations, leading to decreasing public support for these policies. In the early nineties, the fishery policies in the Netherlands have been reconsidered and adjusted. Policies were based on the stimulation of fishing as an economic activity within the framework set by ecological conditions and other functions of the aquatic system. In setting out new policies, management responsibilities were transferred to the sector itself within a framework set by the Government.

Within the EU, The Netherlands has promoted flexibility in quota regulations and improvement of other measures to limit catches. At the national level, a system of co-management was introduced based on Producer Organisations (POs). This system has been evaluated as favourable for compliance with quota regulations and participation of fishermen in sector management. It also encouraged the spreading of fishing activities throughout the year. In the coastal fishery sector (mussels, oysters, cockles and shrimps), special attention has been paid to the interrelations between fishing activities and the ecological value of nature. Where productive and ecological functions of the coastal area were mutually exclusive, a separation between the functions was established, leading to closures of specific areas for fishing. Emphasis is put on self-management by the fishery sector and the reservation of parts of the stocks for bird populations.

Licensing and quotas have also been introduced for the inland fishery. On Lake IJssel the co-management principle is applied but on other water bodies and river systems the role of the government in the protection of stocks, water quality and nature management is more pronounced. Through the Fisheries Act, fishing methods and fish sizes are regulated. Improvement of water quality should lead in the longer term to increase in fish stocks. Participation of professional and sports fishers in resources, nature and water quality management is promoted through the establishment of Management Committees.

Policy on mollusc cultivation is focussed on optimizing the use of designated areas. The

economic value of the areas is discounted in the open tender procedure for designated grounds. For the introduction of new species the precautionary principle is applied. Culture of freshwater fish, in particular African catfish, is expected to increase significantly in the near future.

In the international trade in fish and fishery products, The Netherlands hold a firm position. To ensure quality some measures have been taken and EU directives have been implemented to ensure hygienic conditions.

Economic role of the fishing industry

From the perspective of the national economy, the fisheries sector is only of marginal importance. In 2002, the gross added value of fisheries, including the fish processing industry, represented less than 0.2 percent of the gross domestic product. The value of the export of fish and fish products, however, constituted of 0.8 of total Dutch export in 2002. The Netherlands have a positive trade balance in fisheries products with the value of imports US\$1 612 million in 2002 whereas exports amounted to US\$2 496 million.

	Turnover (US\$ million)	Value Added (US\$ Million)
Fishery	535	224
Processing	2 300	452
Wholesale import	900	90
	Total	766

In terms of employment, the contribution of the fisheries sector, including the processing wholesale and marketing industry is not very significant. It stands at only just over 0.2 percent of total employment.

DEVELOPMENT PROSPECTS

The prospects for cutter fishing are dependent on catches, revenues and costs. Other pressures on the fishery sector are concerns about the effects on the North Sea ecosystem. The beam trawlers in particular degrade the bottom habitats and catch a large number of non-target species. In investment planning, the cutter fishery needs to consider a further reduction of capture opportunities in future. It is expected that co-operation in the Producers Organisation may have a positive effect. It is indicated that cost-reduction is possible through better use of available vessels to reach optimum return on investments. However, it is anticipated that fuel and labour costs will increase, making cost reduction efforts even more necessary.

With regard to the trawler-freezer fleet it is important to ensure stable catches through agreements with third parties, in particular in Africa. Furthermore, diversification of activities (e.g. freezing and transport) needs to be further developed to ensure optimum use of the trawlers.

The professional inland fishery is faced with the problem of decreasing eel populations, the

most important product. Improvements are possible in fishing methods and in treatment of the catch. It is also expected that environmental policies to improve water quality will have a positive effect on fish stocks and therefore for inland fishing. Co-operation between professional and sports fishers will have positive effects on resources management and against poaching.

The processing and distribution of fresh mussels to the traditional markets is well organized, also because of its high-quality image. Potentially, the processing industry may be threatened by imports from elsewhere in the world. Future competition is anticipated particularly from Asian countries. The fresh product, too, can be expected to face competition from within the EU. The mussel culture is under pressure from conservationist quarters: the question is whether Dutch society will continue to give permission to fish for shellfish in the shallows, in particular in the Wadden Sea. Politically, providing more room for farming in the shallows or in the Eastern Scheldt is not a matter of discussion. And apart from the non-enclosed areas that are currently used, no other suitable locations are available. The oyster culture is more a trade rather than a farming sector, with increased risks of introducing diseases, harmful exotics or toxic phytoplankton.

Large-scale fish farming is not really getting off the ground, due to inadequate knowledge of and lack of co-operation between partners in the food industry, combined with relatively laborious relations between industry and knowledge institutes. Although the idea seems to have taken root that the start of new cultures or an expansion of existing cultures should be preceded by more adequate market information, it has had little effect thus far, particularly in catfish farming. Both eel and catfish seem to have the volume to become serious partners for the processing industry. However eel culture is likely to be severely limited by the supply of elvers. Apart from more adequate market knowledge, purification of wastewater (e.g. denitrification) is mentioned as a relevant factor to achieve more advanced levels of production. Still, the costs of farming fish in recirculation systems (which are relatively high) remain a problem.

INTERNET ADDRESSES OF RELEVANT INSTITUTIONS

Common Wadden Sea Secretariat

<http://www.waddensea-secretariat.org>

LEI/DLO (Agricultural Economics Research Institute)

<http://www.lei.nl/>

Ministry of Agriculture, Nature Management and Food

<http://www.minlnv.nl>

<http://www.lei.nl/>

NIOZ (Netherlands Institute for Sea Research)

<http://www.nioz.nl/>

NRLO (National Council for Agricultural Research)

<http://www.agro.nl/nrlo>

OVB (Netherlands Organisation for the Improvement of Inland Fisheries)

<http://www.ovb.nl/>

Productschap vis (sector organization)

<http://www.pvis.nl>

RIVO/DLO (Netherlands Institute for Fisheries Investigations)

<http://www.rivo.dlo.nl/>

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