

FACTS ABOUT THE

NORWEGIAN FISHERIES INDUSTRY

2000





f acts about the Norwegian Fisheries Industry

Norway is a coastal state with both a right and an obligation to manage one of the most productive sea areas in the world. At the same time these waters offer excellent opportunities for an environmentally sound aquaculture industry. The fisheries and aquaculture industries are Norway's second biggest export industries and constitute the very foundation of economic activities along the Norwegian coast.

Not only coastal regions benefit from the rich marine resources. It goes without saying that an industry which in 1999 generated export revenues approximating NOK 30 billion and a domestic turnover of NOK 9 billion is of paramount importance.

Our objective is that the marine sector should take over more of Norway's potential value added as future oil revenues are expected to fall. Such a development will require vibrant and dynamic coastal communities with a well-planned infrastructure and enterprising and creative businesses. Conventional fisheries presuppose that marine resources are managed in a sustainable way in order to stabilize annual quotas. In aquaculture there is an increase in the production of salmon and trout, and more species are becoming commercially viable. Sea ranching, releasing and retrieving fish in their natural habitat, has an enormous potential. The same is valid for economic activities based on by-products from fisheries and aquaculture. The

government has appointed marine research a priority area in an attempt to trigger the potential value added in the fisheries and aquaculture industries. Norwegian fishermen are granted quotas on the understanding that they harvest only a surplus and thus ensure that all species are constantly kept at sustainable levels. Similar principles are applied in the management of the aquaculture industry both with regard to development and localisation. Our extensive coastline holds a considerable potential for further development of the aquaculture sector. Public control and monitoring routines are established to make sure that these principles are observed and that all activities are in compliance with regulations drawn up by the government in co-operation with the fisheries organizations.

In this edition of Facts about the Norwegian Fisheries Industry you will find statistics and brief comments providing a profile of the Norwegian fisheries industry. We have also outlined some of the key factors in its development. The brochure is published by The Norwegian Fishermen's Association and the Norwegian Ministry of Fisheries. In addition, various sectors of the industry have contributed with updated information.

This is the 15th edition of Facts about the Norwegian Fisheries Industry. We hope that this edition, like the previous ones, will provide valuable information to those who seek a brief outline of the significance of our coastal industries.

Oslo/Trondheim, July 2000



MINISTRY OF FISHERIES

Otto Gregussen
Cabinet minister

NORWEGIAN FISHERMEN'S ASSOCIATION

Oddmund Bye
Chairman

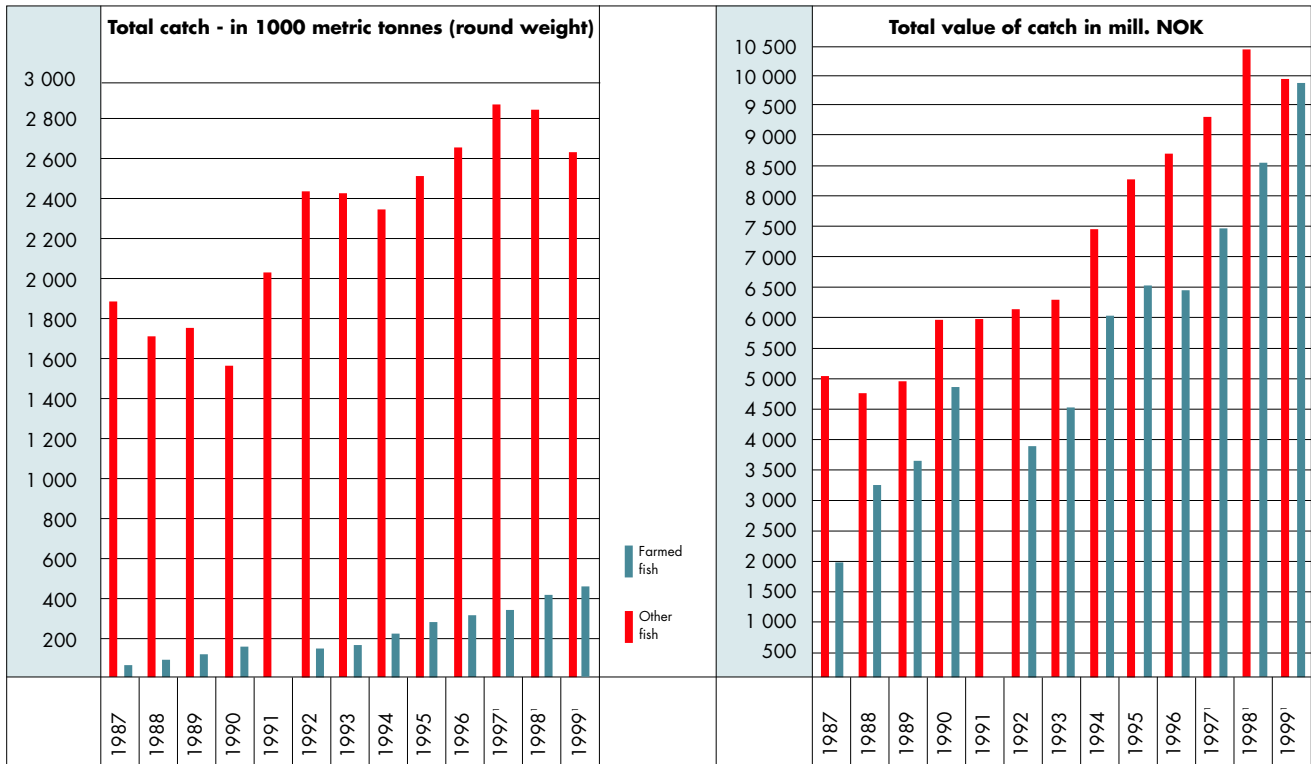


15th edition. Cover: Painting by Rolf Kongsvald, 1954

The painting hangs in Norwegian Fishermen's Association's National Convention Hall, Pier Centre, Trondheim.



Review of quantities and first-hand values from Norwegian fisheries and fish farming 1987 - 1999



¹ The figures for 1997, 1998 and 1999 are provisional. Figures for farmed fish for 1991 have not been published. Figures for farmed fish for 1993 and 1995 includes only salmon and trout. Source: Directorate of Fisheries and Norwegian Fish Farmer's Association



*t*he fishermen



From 1960 to 1975, the total number of fishermen in Norway declined from about 61,000 to about 35,000. In 1995 the figure was almost 24,000. In the meantime more selective criteria had been introduced in the official Fishermen's Register.

21,274 fishermen were registered in 1999. Of these, just over 72% (15,326) had fishing as their sole or main occupation, while fishing was a secondary occupation for the remaining 5,948.

Over the last 50 years the number of fishermen has dropped substantially. This is, of course, a result of increased efficiency in terms of fishing methods and equipment on vessels. The decrease in the number of fishermen working on Norwegian fishing vessels has slowed down somewhat in recent years.



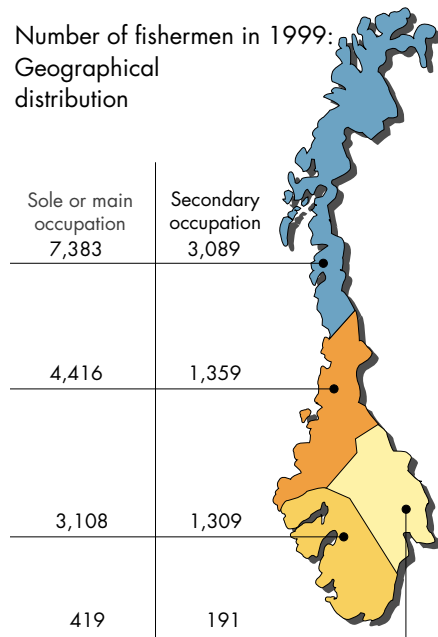
Number of fishermen

Year	Sole or main occupation	%	Secondary occupation	%	Total
1948	68,400	80.0 %	17,100	20.0 %	85,500
1960	45,200	74.2 %	15,700	25.8 %	60,900
1971	30,819	74.5 %	10,562	25.5 %	41,381
1975	25,388	72.0 %	9,874	28.0 %	35,262
1980	25,140	72.3 %	9,649	27.7 %	34,789
1995	17,160	72.5 %	6,493	27.5 %	23,653
1999	15,326	72.0 %	5,948	28.0 %	21,274

Number of sole or main occupation fishermen distribution by age

Year	15-19	20-29	30-39	40-49	50-59	60 and older	Total
1992	866	5,390	4,104	4,145	2,967	2,293	19,765
1993	779	5,286	4,027	4,115	3,032	1,829	19,068
1994	541	4,053	3,522	3,625	2,942	1,759	16,442
1995	544	4,386	3,735	3,648	3,067	1,780	17,160
1996	465	4,251	3,765	3,627	3,170	1,809	17,087
1997	436	3,896	3,727	3,503	3,242	1,857	16,661
1998	425	3,105	3,395	3,189	3,223	1,804	15,141
1999	458	3,010	3,447	3,180	3,330	1,901	15,326

Number of fishermen in 1999: Geographical distribution



Source: Directorate of Fisheries



the fishing fleet



At the end of 1999, 13,199 fishing vessels were registered, of which 8,450 were covered vessels and the rest open boats. Only a part of the large number of registered vessels are used for fishing all year. Of the 13,199 vessels, 7,121 vessels had catch income of more than NOK 10,000. Of these, 5,965 were covered vessels and the rest open boats.

In 1998 the fishing fleet that operate all year numbered 2,348 vessels, i.e. vessels that have operated for at least 30 weeks. The table below shows the distribution of vessels used for fishing all year in 1998.

Number of vessels used for fishing all year in 1998, by length and county:

	8 - 12,9 m	13 - 20,9 m	21 - 30,9 m	31 - 40,9 m	41 m og over	Totalt
1998	1,149	686	199	127	187	2,348
Average age	19	27	23	24	22	22
Distribution by county:						
Finnmark	198	90	23	7	21	339
Troms	186	112	37	13	23	371
Nordland	351	228	57	3	26	665
Trøndelag	89	34	6	5	4	138
Møre og Romsdal	131	53	30	51	62	327
Sogn og Fjordane	45	20	17	19	12	113
Hordaland	34	9	6	12	40	101
Rogaland	32	42	17	18	7	116
Agder/Østlandet	90	100	14	1	0	205



Licences granted the fishing fleet

At the end of 1999, 794 licences for fishing, sealing and whaling were granted and allocated to 454 vessels. These licences were: 103 cod trawling, 100 purse seine, 46 blue whiting trawling, 105 deep sea prawns trawling, 147 North Sea/industrial trawling, 15 saithe trawling, 151 capelin trawling and 46 other licences. There has been a considerable decrease in the number of vessels and licences since 1980.

DISTRIBUTION OF LICENCES BY COUNTY 1980-1999 ¹⁾

County	1980		1985		1990		1995		1999	
	Vessels	Licences	Vessels	Licences	Vessels	Licences	Vessels	Licences	Vessels	Licences
Finnmark	87	123	83	125	62	107	54	85	47	74
Troms	113	175	94	147	76	131	72	118	62	108
Nordland	120	156	100	152	74	114	71	113	69	108
Nord-Trøndelag	13	16	19	26	5	10	5	11	5	15
Sør-Trøndelag	33	52	29	50	9	20	7	15	5	13
Møre og Romsdal	210	279	178	252	120	207	100	153	93	146
Sogn og Fjordane	75	87	55	63	13	16	9	11	7	8
Hordaland	139	183	101	140	54	95	55	103	58	121
Rogaland	127	154	100	111	70	82	57	81	55	121
Agder/Østlandet	79	90	86	91	64	66	68	77	53	80
Total of Norway	996	1315	845	1157	547	848	498	767	454	794

¹⁾ Revision of the licence register has led to changes in relation to previously published statistics.





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ish farming



Over the last decades fish farming has become very important for the employment and pattern of settlement along the Norwegian coast. Today, some 4,000 persons are involved in work on fish and shellfish farms. Indirectly, many more depend on the aquaculture industry. A total of 20,000 people are employed in fish farming and other industries supplying the aquaculture industry with services and products such as fish feed, equipment, transport and packaging.

The aquaculture industry will have an increasing impact on coastal communities and the Norwegian economy as the marine sector will provide an increasingly larger proportion of Norway's total value added. Norway will probably see the most significant production increase in the fisheries and aquaculture industries. This involves salmon, trout and other species.

1999 saw a production of 414,000 tonnes of salmon and 44,000 tonnes of rainbow trout. For the time being, only small quantities of other species are produced, such as cod, char, halibut, blue mussel, oyster and scallop. The total production of salmon and trout amounted to 458,000 tonnes, whereas the total catch of wild fish in 1999 was approximately 2,620,000 tonnes. By comparison, slightly more than 261,500 tonnes of meat was produced on land. Norway exported two million tonnes of seafood representing a value of almost NOK 30 billion in 1999. The value of farmed salmon and trout was approximately NOK 12 billion, representing 40% of the total value of Norwegian fish exports.



Employment/work hours

	Ongrowing plant, breeding stations		Hatcheries and smolt production plants		Total	
	Persons	Hours	Persons	Hours	Persons	Hours
1994	3,395	3,053,381	996	947,711	4,391	4,001,092
1995	3,503	4,292,031	1,113	1,419,630	4,956	5,832,342
1996	3,232	4,078,466	1,020	1,080,845	4,252	5,159,311
1997	2,673	3,751,947	1,023	1,367,595	3,696	5,119,543
1998	2,466	3,500,019	1,024	1,322,583	3,490	4,823,502

(Source: Directorate of Fisheries and Norwegian Fish Farmers Association) One man-year is calculated to around 1,800 hours.

Farmed Atlantic salmon - production by county

Country	Salmon		Trout	
	1998	1999	1998	1999
Finnmark	5,581	16,439	13	-
Troms	27,393	40,537	-	288
Nordland	64,623	84,769	2,676	2,083
Nord-Trøndelag	24,866	27,208	468	41
Sør-Trøndelag	51,635	56,836	2,585	2,725
Møre og Romsdal	33,292	35,801	19,219	18,519
Sogn og Fjordane	35,799	36,907	7,300	6,403
Hordaland	78,314	92,737	11,899	12,200
Rogaland	16,504	16,989	580	1,335
Sør- og Østlandet	5,734	5,696	201	-
Total:	343,740	413,918	44,941	43,593

Source: Directorate of Fisheries and Norwegian Fish Farmers Association





Landing installations and the processing industry



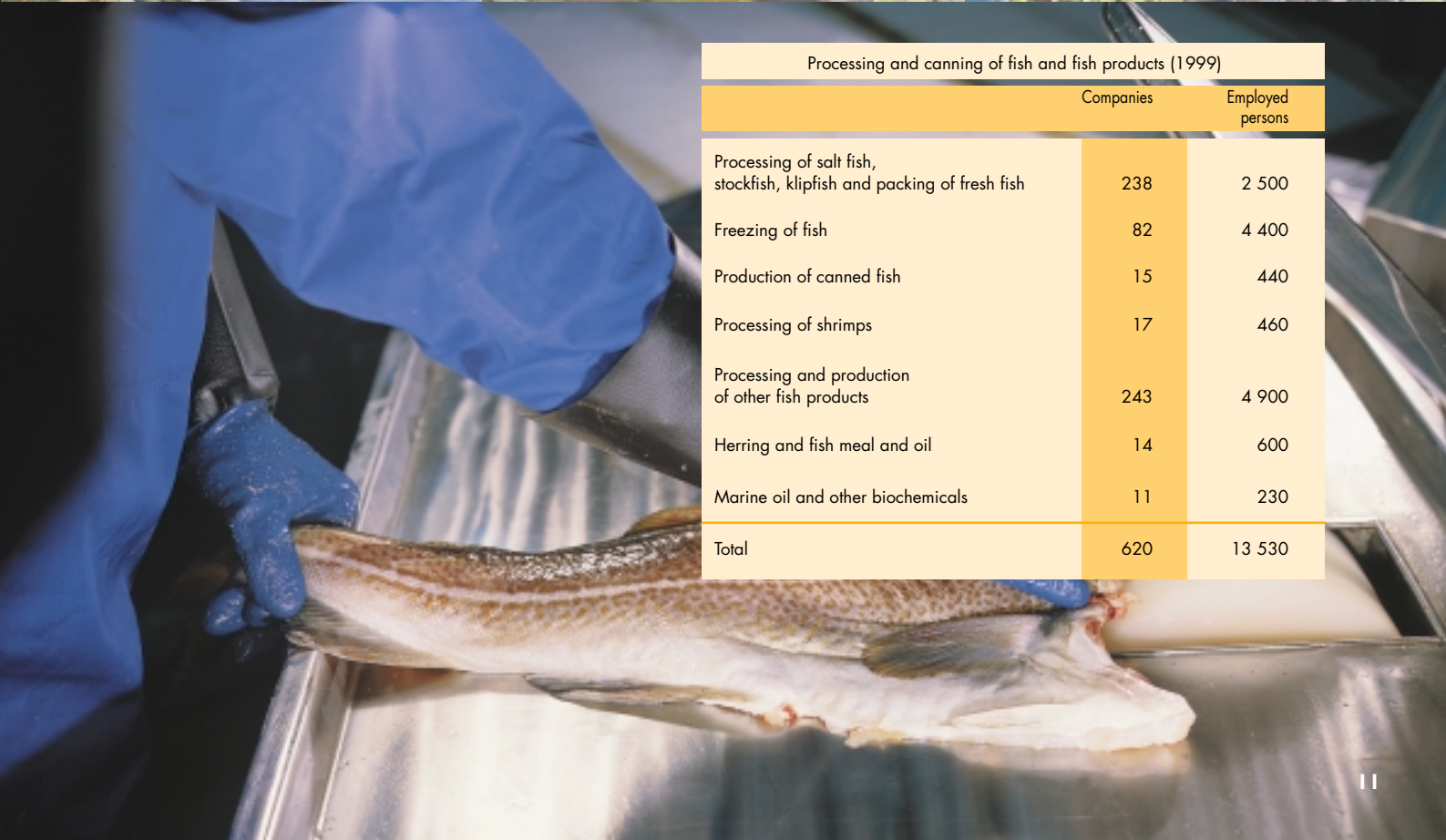
The Norwegian fish processing industry consists of a large number of small and medium-sized businesses scattered along the entire coastline. In 1999, some 600 processing businesses employed approximately 13,500 people.

Changes in the national operating environment and in world trade have changed conditions for the fisheries industry in recent years. The structure in the different sectors of the industry is changing, too. In the white-fish sector and in the industry based on pelagic raw material we see a trend towards stronger concentration of ownership interests.

Many companies have invested substantial amounts of money in modern facilities and equipment, quality assurance, skills development and marketing initiatives. Investments demand a high degree of capacity utilization and presuppose stable supplies of raw materials. Steady supplies of raw materials are hard to achieve because catches vary with the seasonal availability of the different fish stocks.

The 1990s saw an increase in the output volume, capacity utilization and sales in the Norwegian fisheries industry. This was primarily due to a positive development in terms of quotas, imported raw materials, investments and a thriving fish farming industry.

The fisheries industry plays an important part in the continuous work to maintain the position of fisheries as a significant export industry. There is an increasing demand for high-quality products in markets world-wide.



Processing and canning of fish and fish products (1999)

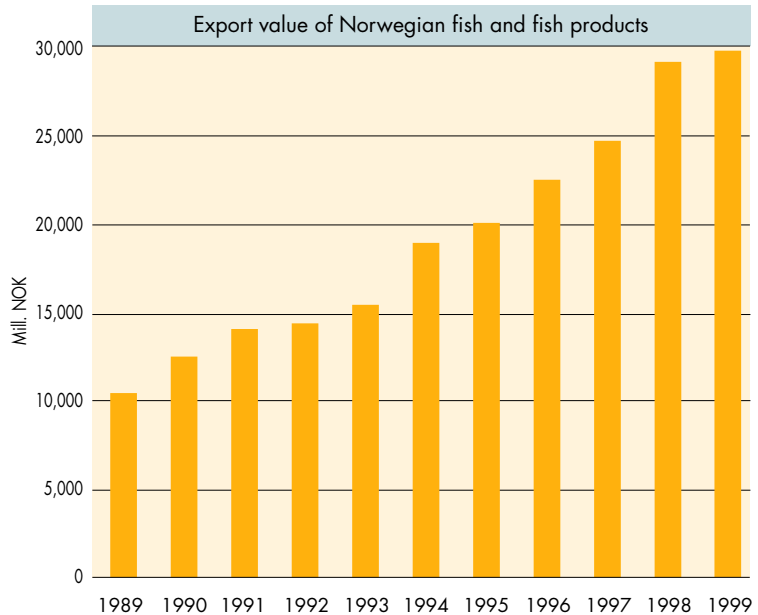
	Companies	Employed persons
Processing of salt fish, stockfish, klipfish and packing of fresh fish	238	2 500
Freezing of fish	82	4 400
Production of canned fish	15	440
Processing of shrimps	17	460
Processing and production of other fish products	243	4 900
Herring and fish meal and oil	14	600
Marine oil and other biochemicals	11	230
Total	620	13 530



Sales value of fish and fish products



Approximately 90% of the total quantity of fish caught and farmed is exported, while 10% is sold in the domestic market. The total export value of fish and fish products amounted to NOK 29.8 billion in 1999.





Value of Norwegian exports of fish and fish products 1999 (mill. NOK)

	Total	EU countries	OF WHICH					Other countries	OF WHICH	
		total	Denmark	UK	France	Portugal	Germany	total	Japan	Russia
Fresh fillets excluding salmon and herring	171	126	20	29	11		41	46	2	1
Fresh fish ex. salmon, herring and fillets	1,194	1,164	454	121	275	4	70	31	1	1
Frozen fish excluding salmon and herring	3,551	789	139	243	14	199	49	2,762	237	135
Frozen fillets excluding salmon and herring	2,782	2,181	111	1,053	281	1	293	601	7	6
Klipfish (salted and dried)	2,573	1,273	1	11	131	882	21	1,300	5	
Canned fish, excluding salmon and herring	302	236	9	24	17	0	14	66	1	2
Meal and pellets	625	596	118	219	68		77	29		9
Farmed salmon, processed	2,343	1,249	152	26	317	1	353	1,094	5	7
Farmed salmon and trout, fresh and frozen	9,655	6,213	1,634	412	1,420	93	612	3,442	100	148
Shrimps	1,303	1,064	123	451	26	0	22	238	3	6
Salted fish, excluding herring	1,603	1,512	3	2	29	1,060	0	92		0
Herring and sprat, canned	224	80	2	0	2		20	144	9	0
Herring and sprat, processed	11	9	2	0			2	2	2	0
Herring and sprat, fresh and frozen	2,221	906	157	23	67	11	146	1,315	421	311
Herring and fish oil	270	196	20	93	9	0	6	74	0	0
Shellfish and molluscs, excluding shrimps	123	71	15	6	10		2	52	1	8
Dried fish	481	406	2	8	2	4	2	75	0	2
Other products	411	103	70	4	0		0	308	1	4
Total export	29,843	18,172	3,033	2,726	2,680	2,255	1,730	11,671	793	640

Source : Norwegian Seafood Export Council



*t*he fisheries industry in a national perspective

The Norwegian fisheries industry has in recent years seen a favourable development. Subsidies have been reduced to a minimum level, the profitability in parts of the fleet has been improved and the fisheries industry emerges as an industry with a considerable potential for increased profits.

Fishing and fish farming are of vital importance in many coastal districts, where a large number of people earn their living directly from these industries. A considerable number of self-employed persons and wage earners are also dependent on the fish resources through processing and sales of fish and fish products, equipment and gear industry, shipbuilding and repair yards, transport and packaging. The export value of the fishing and fish farming industries

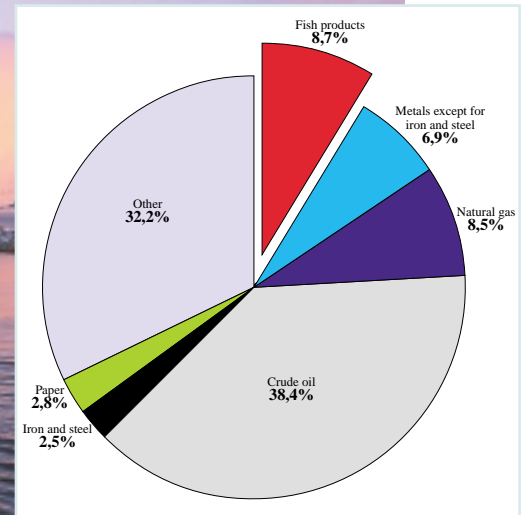
almost doubled in the course of the last decade. Norway exported seafood amounting to NOK 30 billion in 1999. This represents 8.7% of the country's total exports value, thus making the fisheries industry Norway's second largest export industry, after oil and gas.

The Norwegian fisheries industry is strongly dependent on its international environment. On the one hand, we share most of our fish stocks with other countries. This requires close co-operation in the management of fisheries resources. On the other, most of the fish landed in Norway is exported. The Norwegian fishing industry is thus strongly affected by developments in different markets and in international commercial policies.





Fish and fish product's share of Norway's total exports 1999





t he Norwegian fisheries industry in an international perspective



From 1950 to 1970 the total global catch of fish increased by about 7% annually. In 1970, the catch totalled about 60 million tonnes. From 1975 to 1990, catches increased sharply. The peak year was 1989, with a total of 100 million tonnes, including freshwater fish. Since 1989, the global catch has stabilized at this level.

The major fisheries nations in 1998 were China, with a total catch of 17.2 million tonnes, and Japan, with a total catch of 5.4 million tonnes. Norway is the 10th largest producer, with a total catch of 2.9 million tonnes. As an exporter of seafood, however, Norway holds second position on a global basis, with Thailand in the lead. In 1999 Norway exported 2 million tonnes of seafood representing a value of NOK 30 billion.

Norway is exporting seafood to more than 170 countries. The EU is our largest market, and 61% of all fish end up there. Other major markets for Norwegian seafood are Japan, Denmark and Great Britain. In 1999 these markets received fish representing NOK 4.2 billion, NOK 3 billion and NOK 2.7 billion, respectively.

Aquaculture is steadily becoming more important to the Norwegian economy as new markets are being established around the world. In 1999, the export of Norwegian salmon amounted to a good NOK 10 billion. When it comes to conventional fisheries, the most important species are cod (NOK 6.4 billion), mackerel (NOK 2.0 billion) and herring (NOK 1.9 billion).



Major fisheries nations by export value (billion USD) 1998



Source : FAO



Organizational structure



NORGES FISKARLAG - THE NORWEGIAN FISHERMEN'S ASSOCIATION is a politically independent national organization based on voluntary membership of fishermen via their county associations and group organizations.

The members are owners of vessels and/or gear, and fishermen working on a share or percentage basis. It includes fishermen on small fishing boats as well as those on board the largest deep sea fishing vessels. The highest governing body of Norges Fiskarlag is the Congress, which consists of some 70 delegates elected by the county associations and group organizations. Ordinarily the Congress meets every second year. In the intermediate periods, authority is exercised by the National Committee, consisting of 11 members elected by the Congress. Organizational activities embrace economic, social and cultural issues.

Norges Fiskarlag works in close cooperation with the national authorities. For instance, the Main Agreement for the Fishing Industry, entered into on June 3, 1964, provides that the Association is responsible on behalf of the fisheries industry as a whole for negotiations with the authorities on matters that concern economic conditions in the industry.

Due to the great importance of the fisheries industry in the coastal districts, Norges Fiskarlag has an important responsibility regarding the development of the communities in these areas.



The fishermen's legally protected sales organizations

According to the Raw Fish Act of 14 December 1951, all first-hand sales of fish and shellfish, except for farmed fish, are to be carried out through the fishermen's own sales organisations. Currently there are 6 such organisations, which have legally protected rights to first-hand sales either with respect to a geographical district or with respect to certain species of fish.

When the fish farmers' own sales organisation ceased to exist in 1991, farmed fish was excluded from the provisions of the Raw Fish Act.

The sales organisations are based partly on indirect membership through the fishermen's associations, partly on direct membership of individual fishermen or crews, and partly on a combination of these forms of membership. The aims of the sales organisations are, through organised sales, to ensure high and stable prices and reliable terms of payment. The individual sales organisations have arranged their activities in different ways to achieve this. Minimum first-hand prices are usually determined by negotiations between the sales organisations and the buyer's organisations. If agreement cannot be reached, the Raw Fish Act gives sales organisations the authority to set the minimum prices.

There is a levy on all first-hand sales to cover the administrative costs of the sales organisations.



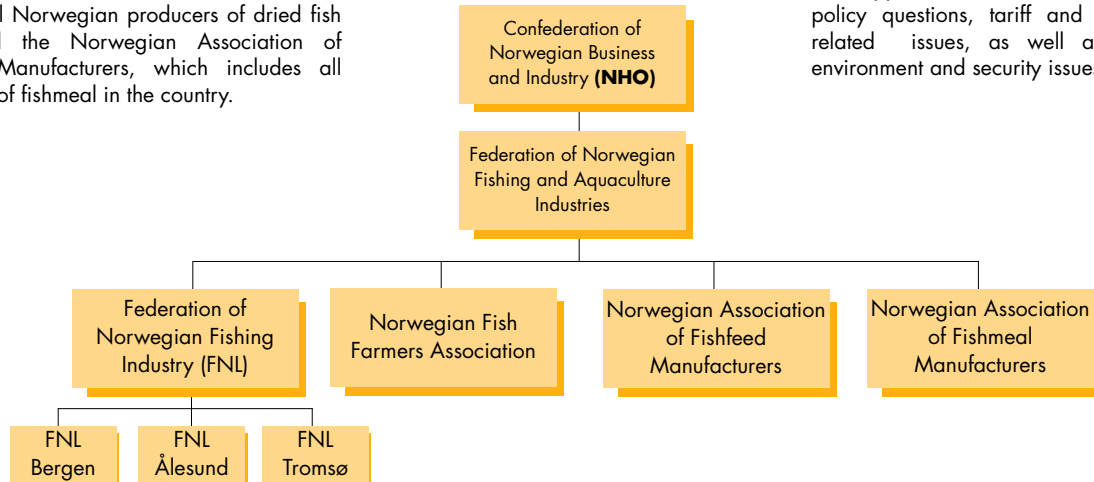


the organization of processing and marketing

The Federation of Norwegian Fishing and Aquaculture Industries (FHL) is a nation-wide employer's organization and policy-forming body connected to The Confederation of Norwegian Business and Industry (NHO). FHL was established in November 1994 and is an umbrella organization for four trade organizations. These organizations are the Federation of Norwegian Fishing Industry (FNL), which includes the fishing industry and the exporters; the Norwegian Fish Farmers Association (NFF), which includes fish and shellfish farmers; the Norwegian Association of Fish Feed Manufacturers, which includes all Norwegian producers of dried fish feed; and the Norwegian Association of Fishmeal Manufacturers, which includes all producers of fishmeal in the country.

FHL has its headquarters in Oslo and branch offices in Tromsø, Trondheim, Ålesund and Bergen. The purpose of FHL is to protect and to promote the common interests of its members as well as to represent the industry nationally and internationally. FHL encompasses more than 500 member enterprises with more than 11,000 employees.

FHL co-operates with its trade organizations, which in turn are in charge of trade specific tasks. Work associated with common challenges is taken care of by FHL. This also applies to commercial and trade policy questions, tariff and employer related issues, as well as health, environment and security issues.







administration and other services

The Royal Ministry of Fisheries was established in 1946. Norway was the first country to establish a separate ministry for the fisheries. The Ministry of Fisheries is the secretariat of the Minister of Fisheries and manages the fisheries sector by laws and regulations.

The general objectives of the Ministry are to ensure stable framework conditions for sustainable and profitable fishing and aquaculture industries, as well as other business activities based on marine organisms. Thus, these industries may in the next decade manage to realize their potential added value and to secure sea traffic and ensure efficient and competitive sea transport.

The Ministry of Fisheries is responsible for:

- The fishing industry
- The aquaculture industry
- Ports, lighthouses, pilot services and electronic navigation devices

The Ministry of Fisheries is organized in four departments:

- Department of Resources and Planning
- Department of Aquaculture, Processing and Trade
- Department of Coastal Administration
- Department of Administration

Various auxiliary institutions, which are both executive and administrative, give technical/professional advice within their fields to the Ministry:

The Coastal Administration is a body for the Ministry of Fisheries in the port, pilot and lighthouse service. The Coastal Administration is divided into five regional offices that carry out tasks in the ports, pilot and lighthouse service under the direction of the **Coast Directorate** in Oslo. **The Directorate of Fisheries** in Bergen is a body within the fisheries and fish farming administration. The regional Fisheries Administration consists of nine district offices. Their tasks consist of both advisory and control activities.

The main tasks of **The Institute of Marine Research** in Bergen are research and monitoring of fish stocks and marine mammals, sea and coastal environment as well as research on fish farming and sea ranching. **The Norwegian Institute of Fisheries and Aquaculture** in Tromsø carries out research in the fields of

biology, product development, marketing, aquaculture and resources. **The Norwegian Research Council** in Oslo administers a considerable part of the funds for fisheries research in accordance with guidelines given by the Ministry of Fisheries.

The Norwegian Industrial and Regional Development Fund (SND) administers all use of policy instruments vis-à-vis the fishing fleet, the aquaculture industry and the fisheries industry in accordance with Ministry of Fisheries guidelines.

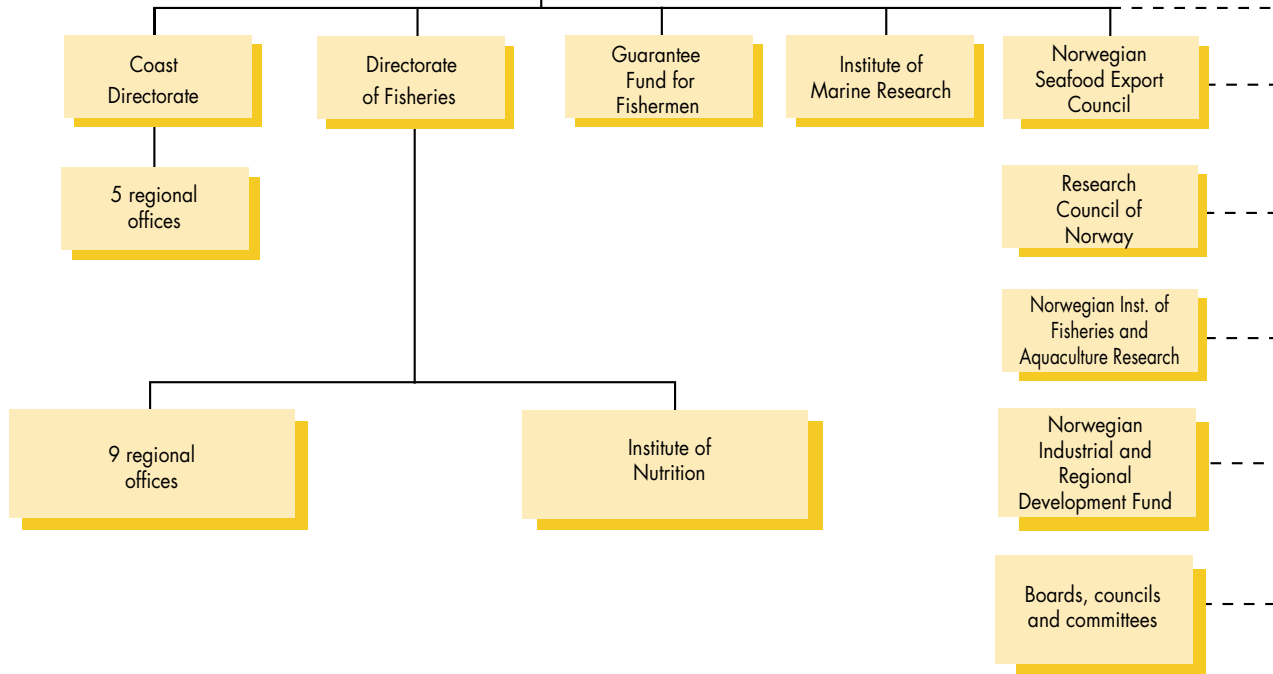
The Norwegian Seafood Export Council (NSEC) in Tromsø has representatives in important markets and co-ordinates marketing strategies for the industry abroad. In addition, EFF is responsible for domestic marketing of fish and fish products. **The Institute of Nutrition**, under the Directorate of Fisheries in Bergen, advises the fisheries authorities on nutritional matters, and carries out research in this field. **The Guarantee Fund for Fishermen** in Trondheim manages social benefit schemes for fishermen.

Fish stocks migrate across economic zones and international waters, and for this reason international co-operation is necessary to ensure sustainable management of the fish stocks. Norway has fisheries agreements with the EU, Russia, Faeroe Islands, Iceland and Greenland. Annual negotiations are conducted to establish the following year's quotas for the different stocks and how the fisheries are to be managed. The Norwegian delegations include representatives of the authorities, marine scientists and the fisheries industry. Quotas are set on the basis of the assessments and recommendations of the International Council for the Exploration of the Sea (ICES). Norway also participates in other international administrative bodies, such as The Northeast Atlantic Fisheries Commission (NEAFC), The Northwest Atlantic Fisheries Organization (NAFO), The International Whaling Commission (IWC) and The North Atlantic Marine Mammal Commission (NAMMCO).

The Coast Guard, managed by the Ministry of Defence, controls the fishing activities of Norwegian and foreign fishing vessels in Norwegian waters. In addition, some local control units operate under the Directorate of Fisheries. Inspection of the south and west coast of Norway is managed by the Chief Fishery Officers in co-operation with police authorities.



Ministry of Fisheries





t raining, research and competence

The Oslo-based Research Council of Norway and the Institute of Marine Research in Bergen are advisory bodies to the Ministry on questions concerning fisheries research and management of marine resources. The Norwegian Institute of Fisheries and Aquaculture Research in Tromsø also has an advisory function, especially concerning the management of sea mammals.

Funding of fisheries research is channelled partly through the Research Council of Norway, and partly through the Institute of Marine Research, the Institute of Nutrition under the Directorate of Fisheries, and the Norwegian Institute of Fisheries and Aquaculture Research.

The Research Council of Norway is a national body for research strategies. The purpose of the Council is to increase general knowledge and to contribute to the public research needs through promoting basic and applied research in all important fields. Via the department of Bioproduction and Processing, the Research Council has focused its research on primary industry produce. The research effort is organized in programmes.

The Norwegian Storting (Parliament) has passed an act imposing an R&D duty on the export value of fish and other marine resources. The act will be effective as of 1 January 2001, and the duty represents 3 per thousand of the export value. The objective is to strengthen the funding of research and development (R&D), enhance the potential for value added, adjustment to the environment, reorganization and innovation. Funds are to be managed by a board appointed by the Ministry of Fisheries, and the board will have representatives from different sectors of the industry. This arrangement will hopefully result in a significant enhancement of R&D efforts in the fisheries industry.

The Institute of Marine Research is mainly concerned with investigating the coastal and sea environment, fish stocks and other marine organisms, in addition to the aquaculture industry and sea ranching. The institute is divided into three centres, the Marine Environment Centre, the Marine Resources Centre and the Aquaculture Centre. The results of the research conducted by the institute are of great importance to the various coastal businesses.

The institute administers research stations and research vessels, and has a close contact with research institutes abroad. Much of the international co-operation is channelled through the International Council for the Exploration of the Sea (ICES). The Norwegian Institute of Fisheries and Aquaculture Research in Tromsø is a company in the NORUT research group. The institute has its own aquaculture research station.

The Institute of Nutrition, under the Directorate of Fisheries in Bergen, advises the fisheries authorities on nutritional matters. It carries out research on the nutritive value of fish and other marine resources. The institute also undertakes nutritional studies on various types of farmed fish, and develops models for analysing nutrients.

In addition to the research institutes mentioned above, universities, colleges and other centres also undertake research. In Norway this type of research embraces a wide field covering areas such as marine resources, fish health, fishery technology, the fishing industry, industrial development, nutrients and commercial issues related to fish and fish products. Education and training in subjects related to fishing, sea farming, fishing and coastal industries and marketing are offered at a number of upper secondary schools in coastal districts.



After the introduction of Reform '94 in Norwegian upper secondary schools, the system now offers a craft certificate in fisheries science within all parts of the fishing industry.

Higher education in fishery science is offered at district and maritime colleges. It is possible to take a university degree in fishery science at the Norwegian College of Fishery Science in Tromsø, or to study the subject as part of the degree in science at one of Norway's universities. The Norwegian School of Economics and Business Administration in Bergen and the Norwegian University of Science and Technology in Trondheim both offer studies in fishery subjects.

The Norwegian Fishing Industry's Joint Board of Competence Development is founded on close co-operation between the organizations representing the fishery sector, the fish farming sector and the processing sector. Priority areas for the board are craft certificates, training of instructors and work for the development of comprehensive education and up-grading possibilities on all levels, as well as recruitment and information.

The Council for Women in the Fisheries Industry manages funds, supplied over the budget of the Ministry of Fisheries, especially aimed at making small local communities based on the fishing industry more attractive to women. Through different measures a number of projects are introduced to strengthen local trade and industry.



Norway was the first country in the world to establish an independent Ministry of Fisheries.

1900: Directorate of Fisheries established (remaining until 1946 under the Ministry of Trade, Shipping, Manufacture and Fisheries).

1946: Ministry of Fisheries established.



Research and training play an increasingly central role. Substantial pioneering work has been carried out, especially in the marine research sector, contributing to the growth of a whole school of thought at international level.

1939: First fishermen's training school founded (Aukra)

1947: Marine Research Institute established.

1970: Act on Graduate and Postgraduate Fisheries Training passed.

1972: Norwegian Fisheries Research Council established.

1973: FTFI established

1990: The Institute of Research on Fisheries and Aquaculture established.

2000: Act on duty for R&D purposes in the fisheries and aquaculture industries



Approximately 160 employees are now engaged in the control and inspection work of the Directorate of Fisheries. Their task is to maintain strict quality supervision of all types of fish and fish products.

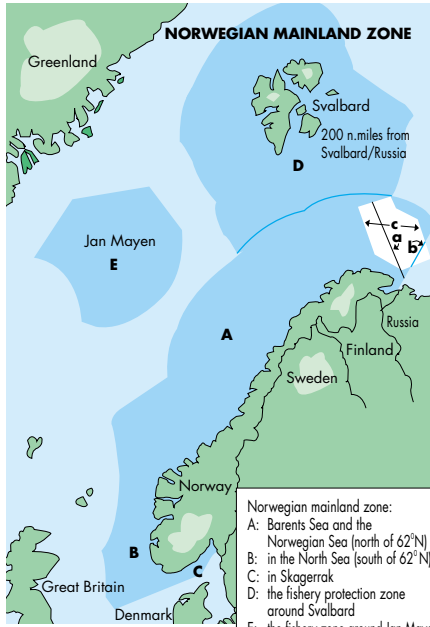
1900: First Act on inspection of fish products.

1959: New Act on quality inspection of fish and fish products, superseding many earlier regulations.

1971: Act on Fisheries Advisory Service passed (Revised 1982)



Norwegian fishery yields 1996*, 1997*, 1998*



Norwegian mainland zone:
 A: Barents Sea and the Norwegian Sea (north of 62°N)
 B: in the North Sea (south of 62°N)
 C: in Skagerrak
 D: the fishery protection zone around Svalbard
 E: the fishery zone around Jan Mayen

a: sector line
 b: median line
 c: adjacent area in the Barents Sea which is covered by a temporary agreement between Norway and Russia

Catch area	QUANTITY CAUGHT ROUND FISH WEIGHT				Percentage distribution 1996 - 98
	1996** 1000 t.	1997 *** 1000 t.	1998*** 1000 t.	Average 1996-1998 1000 t.	Quantity %
Norwegian Mainland zone and outside the 200 naut. mile zone	1,879.3	2,247.1	2,081.4	2,069.3	74.73
Fish-protecting zone Svalbard	56.0	50.0	53.9	53.3	1.92
Fishery zone Jan Mayen	198.8	85.4	89.1	124.4	4.49
European Union's zone	374.4	337.6	574.4	428.1	15.46
Greenlandic zone	1.8	7.5	1.4	3.5	0.13
Icelandic zone	8.5	61.1	2.6	24.1	0.87
Russian zone	36.5	27.1	35.4	33.0	1.19
Faroese zone	39.8	35.8	11.2	28.9	1.04
Canadian zone	5.7	1.9	1.3	3.0	0.11
ICES - area XII	1.2	2.7	0.3	1.4	0.05
Total	2,601.9	2,856.2	2,848.9	2,769.1	100.0

* Excludes fish in remote waters, i.e. Africa, Australia and South America.

** Includes Norwegian vessels' catch on Russian quota. *** Provisional figures.



Landed catches from Norwegian fisheries - quantity and first hand value 1995-1999

FISH SPECIES	QUANTITY CAUGHT (in tonnes)					FIRST-HAND VALUE 1000 NOK				
	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999
Herring, sprat	727,674	822,188	930,216	866,877	843,649	1,027,036	1,527,708	1,595,706	1,519,316	1,222,146
Maxkerel	202,209	136,699	137,256	158,323	160,816	696,495	1,063,941	1,113,406	840,672	863,543
Capelin	27,740	207,706	157,889	88,226	92,567	15,700	118,358	120,837	77,377	190,634
Sand eel, blue whiting, etc.	642,933	619,882	745,954	941,613	772,852	414,221	375,834	563,086	821,516	419,821
Horse mackerel	96,132	15,556	46,491	13,366	46,648	97,598	38,577	76,115	27,551	106,647
Cod	365,333	358,395	401,469	321,645	256,637	2,808,960	2,516,671	2,860,091	3,366,807	3,323,247
Saithe	218,853	221,638	183,627	194,199	197,969	893,786	827,374	704,030	1,050,592	1,010,783
Haddock	79,834	97,115	106,161	79,038	53,232	440,756	493,945	611,505	721,291	591,052
Tusk	18,682	19,483	13,797	21,029	23,271	129,119	130,496	85,794	186,183	191,325
Ling, blue ling	18,906	19,461	15,792	23,125	19,759	201,389	183,193	143,530	272,750	228,214
Redfish	23,282	29,679	22,708	28,568	30,855	110,817	151,952	124,429	196,577	201,093
Greenland halibut	14,074	17,073	12,375	11,947	20,166	220,670	275,362	193,067	187,703	284,818
Shrimp	39,250	41,505	41,951	56,175	64,202	783,456	652,048	628,218	802,929	913,181
Shellfish	7,391	40	87	140	445	36,003	626	1,482	3,043	8,484
Other	41,405	42,701	47,224	46,689	35,998	342,156	362,157	402,556	399,898	357,602
Total	2,523,698	2,649,121	2,862,997	2,619,066	2,599,466	8,218,162	8,718,242	9,223,852	10,474,205	9,912,590

1997, 1998 og 1999: Provisional figures

Source: Directorate of Fisheries



Norges Fiskarlag

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Founded 1926

The Norwegian Fishermen's Trade organisation

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MINISTRY OF FISHERIES

