FISHERY COUNTRY PROFILE	Food and Agriculture Organization of the United Nations	FID/CP/FIN
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THE REPUBLIC OF FINLAND

GENERAL ECONOMIC DATA

Area:	338 145 km^2
Shelf area (to 200 m):	98 100 km^2
Length of coastline:	1 100 km (excl. curling)
Population (2003):	5 210 000
GDP at producer's price (2002):	US$ 161 549 million
Agricultural GDP (2002):	US$ 4 471 million

FISHERIES DATA

Commodity balance (2001):

	Production	Imports	Exports	Total supply	Per caput supply
	tons live weight				kg/year
Fish for direct human consumption	103 162*	73 438	18 152	158 449	30.5
Fish for animal feed and other purposes	62 673	-	-	-	

* recreational fishery excluded

Estimated employment (2001):

Marine capture fisheries	2 659
Inland capture fisheries	436
Aquaculture	2 000
Processing	1 265

Production and trade value:

Gross value of fisheries output (2001) (ex-vessel prices):	
Value of marine landings (national landings in domestic ports):	US$ 21 661 536
Value of aquaculture:	US$ 51 204 000
Value of inland landings:	US$ 8 128 960
Trade (2003):	
Value of imports:	US$ 170 414 000
Value of exports:	US$ 13 041 000

STRUCTURE AND CHARACTERISTICS OF THE FISHING INDUSTRY

A particular characteristic of the Finnish fisheries is created by the arctic climatic conditions. Fishing waters, and especially coastal waters, are to varying extents covered by ice for part of the year. This means that ice fishing using nets, hooks and traps is common in the winter season while the main fishing period lies between April and November. There are around sixty species of fish indigenous to Finland, of which approximately twenty are fished, including commercial and main recreational species, and one species of crayfish. The commercial fleet is largely comprised of small-scale vessels, with the majority of the vessels less than 18 metres long. Most of the national catch however is comprised of herring and sprat taken for industrial purposes by a small number of larger trawlers. There is a small but active inland commercial fishing industry, largely targeting vendace. Recreational fishing is also important, with approximately forty per cent of the population

fishing at least once a year. Ninety per cent of the inland catch is taken in recreational fisheries, as is approximately half of the marine catch other than Baltic herring. Aquaculture is economically important, more so than capture fisheries, with the most important cultured species being rainbow trout raised in sea cages.

Marine fisheries

Catch profile

Both the volume and value of landings decreased between 1995 and 2001. An initial reduction of approximately 10,000 tonnes occurred between 1997 and 1998. A second, larger decrease occurred the following year when landings fell to 77,800 tonnes in 1999. Since then national landings increased gradually to 140 000 tonnes in 2002.

By far the most important commercial species is Baltic herring. Most of the catch is used in industrial processing for animal feed for the fur farming industry. Finland catches the second largest amount of fish for feed in the EU, after Denmark.

Because of the large catch volumes, Baltic herring is the most economically important species even though the unit price is low. Other important species of fish in domestic landings are other pelagic species and salmon, which represent approximately 0.4 per cent of the volume, but six per cent of the value of the domestic landings.

Fishing units

The Finnish fleet consists of trawlers, gill-netters and coastal vessels. In 2001 the fleet consisted of 3,612 vessels. The number of vessels decreased gradually from 4,106 vessels in 1995 by approximately 100 vessels a year. Trawlers land the majority of the catch, both in terms of volume and value.

Approximately 96 per cent of the vessel lengths lie between six and 17.9 metres. The majority of the vessels are between six and 11.9 metres in length (2,075, 57 per cent, in 2001) and 1,390 vessels, 38 per cent, between 12 and 19.9 metres.

For purposes of an overview, the average trawler in 2002 was 28 years old, 17 metres long, had a GT of 45 and a crew of two. More specifically, there are two groups of trawlers in the Finnish fleet. The under-24-metre pelagic trawler fleet accounts for approximately 90 per cent of the catch by volume and over half in terms of value. There are 65 vessels operating in this group. The main species targeted by this fleet are Baltic herring and sprat. The fleet has remained viable recently despite quota cuts because of increases in fish prices. The second group of vessels are over 24 metres long; they are one of the most important groups in economic terms, although there are only 21 vessels operating in this group. Their catch consists mainly of fish for human consumption.

Traditional practices such as gillnetting are becoming less common. The number of offshore vessels fishing with gillnets decreased by a quarter between 2001 and 2002 to 18 vessels. This is partly due to a decrease in salmon prices, the main target species.

Small-scale fisheries are a socially important part of the Finnish fishing fleet, accounting for approximately 71 per cent of vessels and 63 per cent of employment in fisheries. The landings of this group are small and consist mainly of non-quota species (e.g. whitefish (*Coregonus lavaretus*) and pike-perch (*Sander lucioperca*)) and the fishing grounds worked are generally close to the shore. Many of the fishermen operate part-time on a seasonal basis. The average age of these vessels is 16 years, with an average length of eight metres

and average 5GT. Although the sector accounts for almost three quarters of the vessels, the catch value amounts to only 0.1 per cent. Nevertheless, this is the only fleet sector that made a profit in 2002, largely due to its low operating costs.

Inland fisheries

Inland freshwater commercial fisheries mainly target vendace. Of the 5,200 tonnes of freshwater catch landed in 2002, 2,670 tonnes were vendace. Other species include roach and perch. The value of the inland fishery was US$ 8,130,000 in 2002, of which US$ 4,400,000 was attributable to the vendace fishery. Since the 1980s both catch volume and value have decreased. Volume decreased from around five thousand tonnes to three thousand tonnes around 1991, but then increased to 5,200 tonnes in 2002. However, the value has not recovered back to its former level of over US$ 24 million.

Recreational Fishery

Recreational fishing is one of the most important outdoor leisure activities in Finland. Approximately 40 per cent of the population take part in recreational fishing once a year. Most activity takes place near highly populated areas or in the lake district, where there are many holiday homes.

The relative importance of the recreational fisheries is reflected by the fact that it equals approximately 90 per cent of the inland catch and 40 per cent of the marine catch, if Baltic herring are excluded.

The major species targeted in the recreational fishery are perch (12,300 tonnes in 2001) and pike (10,000 tonnes), with others including roach, whitefish, bream, vendace and pikeperch.

In 1986 the volume of the recreational catch was around 40,000 tonnes a year. Between 1992 and 1996 landings peaked at approximately 60,000 tonnes. Since then the landings have been decreasing. The total weight of the fish landed by recreational fishermen in 2000 was 35,300 tonnes, which was approximately 5,000 tonnes less than the previous year. The number of recreational fishermen also decreased.

In 2001 the inland recreational fishery was approximately three times larger both in terms of catch volume and value than the recreational sea fishery. The number of inland recreational fishermen in Finland in 2000 (1,664,000) was approximately four times higher than the number of recreational sea fishermen (466,000). Recreational catch is not marketed.

Aquaculture

First recorded experiments in Finnish aquaculture date back to the late 1800s. It was not until the 1950s however that an industry began to develop when amateur trout farming commenced in the lake district of central Finland. With decreasing catches of wild salmon in the Baltic Sea, aquaculture became a commercial activity in the 1970s and intensified in the 1980s.

Most of the aquaculture installations are located in coastal areas and mariculture is particularly important in the Archipelago Sea and along the west coast of Finland. The most important species in aquaculture is rainbow trout raised in sea cages, representing around 80 per cent of the total production from aquaculture. The rest consists of rainbow trout raised in freshwater ponds and a few other finfish. There is also farming of crayfish and production of fry and salmon for restocking purposes in the Baltic Sea. In 2002, the aquaculture production was 15,132 tonnes.

UTILIZATION OF THE CATCH

Fish consumption

The majority of the fish consumed in Finland is imported from other countries. The recreational fishery is the second largest source of fish for consumption in Finland. Between 1987 and 2001 the relative importance of fish for consumption originating from commercial fishing decreased to the point that in 2001 the proportion of fish for human consumption provided by the aquaculture industry was roughly equal to that provided by capture fisheries. Half of the fish for human consumption is Baltic herring. The other main species of fish for human consumption is rainbow trout, which is generally from aquaculture.

Processing

The majority of the fish processing plants are situated around the coastline. There are a few large processing plants and numerous small family businesses. There were 228 processing plants in 2001. They mostly processed domestically landed fish (approximately 35,000 tonnes), but also around 6,000 tonnes of imported fish.

Ninety per cent of the total catch is Baltic herring or sprat. Almost all the sprat and three quarters of the Baltic herring is used for reduction or otherwise as animal feed, leaving less than one third of the total catch for human consumption.

Over half of the Baltic herring used for human consumption is deep frozen, whereas half of the rainbow trout is consumed in the form of fillets. The majority of fish for human consumption is processed into fillets; deep-frozen fish are the second most frequently consumed form of fish.

Fish markets

Baltic herring are relatively small and have a low market value. The producer price for Baltic herring for human consumption is approximately half that for pike and perch and six to seven times less than for rainbow trout. Although Baltic herring for human consumption is over three times more valuable than for industrial purposes, 80 per cent of the Baltic herring catch is processed into fishmeal. The majority of the Baltic herring processed is sold to domestic mink farms. As Finland does not operate fish auction systems and there are no producer organisations, fishermen sell their catch directly to fish dealers or other vendors.

FISHERY SECTOR PERFORMANCE

Economic role

The fishing industry does not constitute a major part of the national economy, and contributed to about 0.1 per cent of the national Gross Domestic Product (GDP) in 2000. However, fishing can play a locally important role in many municipalities.

The majority of the coastal and inland waters in Finland are privately owned. Despite this, however, there is in most cases no direct economic profit from these waters. Levies from fishing permits are usually invested in management and restocking activities.

Supply and demand

The Finnish population consumes approximately 30 kg of fish in its different forms per caput per annum. This made them the fourth largest consumers of fish in the European Union in 1999 after Portugal, Spain and Malta in terms of per caput consumption.

Trade

Finland imports approximately four times more fish products than it exports. Major imports

are fishmeal, largely from Iceland. Other imports are fresh and chilled fish from Norway and Sweden, and prepared or preserved fish as well as caviar and caviar substitute.

The volume of exports increased from 11,319 tonnes in 1996 to 14 356 tonnes in 2002. The largest export product is frozen fish (12,800 tonnes in 2002, 89 per cent of total exports). A large proportion (75 per cent) of exports from Finland go to Russia. Most of these exports are Baltic herring and sprat. Other exports are mainly fresh or chilled fish.

Approximately 42 per cent of imported product weight is for human consumption. This amounts to 83 per cent of the value of imports. The remaining imports are destined for animal feed. Fish for animal feed are generally imported as fish offal or fishmeal, which account for 29 per cent and 24 per cent respectively of the total imports. Other uses of imports, which account for five per cent, include living fish, fish fats and oils and their fractions.

Employment

Approximately 6,360 people were employed in the fisheries sector in 2001. Of these, 3,095 were employed in the capture fisheries, 2,000 in aquaculture and 1,265 in the processing sector. The division of labour between these three segments has remained relatively constant since 1998. In 2001 there were twice as many people in full-time employment as in part-time employment in the processing sector.

FISHERY SECTOR STATUS AND DEVELOPMENT

State of the fishing industry and constraints

Finland has no large markets, and the geographic location does not favour large-scale processing of foreign raw material. This had led to the industry remaining predominantly small-scale and focused on domestic markets. Local supply and demand of fish for human consumption is primarily accounted for by fish caught by national fishermen. A very large share of local consumption stems from household fisheries and part-time fishermen. The fishing sector of Finland is geographically very localised. With small-scale processing plants, the sector is not presently geared to large-scale imports of raw material for further processing and re-export.

The strengths of the industry lie in the steady tradition of fish consumption and in the above-average social infrastructure. Very small enterprise size and lack of product variety are key weaknesses. One of the main issues facing some parts of the Finnish fleet is restructuring and downsizing of capacity. There has been a reduction in salmon driftnet capacity and this is expected to extend to the herring fishery. The salmon driftnet fishery will also reduce further over the coming years and nets over 2.5km in length are phased out under EU legislation for the purposes of reducing bycatch. At the same time, the small-scale fishing fleet is supported and has developed. Restructuring is likely to lead to a more diversified fleet, with vessels moving towards chartered tourist excursions for example.

Other threats to the industry lie in falling domestic demand and poor water quality of the Baltic Sea. Alongside natural stresses to the marine environment, such as anoxia, nutrient pollution has led to eutrophication in the Baltic Sea. Other issues are closely linked to shipping, as discharges of oil or oily ballast waters and minor spills take their toll on the marine environment. The Baltic sea also has long periods, of up to over 16 years, of stagnation and low flow rates, resulting in large changes in salinity and a presence of brackish water in bays.

Future challenges include meeting the demand for high quality and certified products for

the Finnish consumer market. There are ongoing conflicts between environmental groups and the fisheries and aquaculture sectors, as well as disagreements between professional and non-professional fishermen. Meeting and managing the rising demand from the urban population for access to recreational fisheries is also a challenge.

Because most of fishing occurs in privately owned areas, commercial fishermen are largely dependent on the fishing permits granted to them by the fishery associations and individual owners. The fragmentation of the water areas and the degree of dependency can pose a hindrance in areas such as the Southwest Archipelago, where there are numerous owners and many summerhouses. The social and economic developments, especially the urbanization process, have affected the fisheries system in a way such that land ownership has become more fragmented and non-localized. The small size and scattered structure of privately owned waters, and inequity have triggered demands for reorganization of the fisheries management system.

Fisheries management

Since 1 January 1995, when Finland joined the EU, its resource management policies have been harmonised with the Common Fisheries Policy. Bilateral agreements on access to resources in national exclusive economic zones in the Baltic were originally negotiated annually with third countries. Until the end of 2004, Finland was represented by the EU in the International Baltic Sea Fisheries Commission (IBSFC), through which management and quota allocations were decided. However, following EU enlargement in May 2004, the IBSFC has become obsolete. It is therefore due to be replaced by bi-lateral agreements between Russia and the EU from the end of 2004.

Management of fisheries resources in Finland is dependant on the property rights in Finnish waters: Waters close to the coast are generally privately owned (to 500m from the 2m depth line), but mostly collectively administered by a fishing association at village level.

Research

Capture fisheries

The Finnish Game and Fisheries Research Institute (RKTL) is the sector-specific research institute, working under the Ministry of Agriculture and Forestry. Fisheries biologists and managers within the RKTL assess fish resources and provide advice on stocking and fisheries management. The RKTL also undertakes socio-economic and aquaculture research on the fish market and aquaculture industry.

The Fishing Unit of the Finnish Game and Fisheries Research Institute provides scientific advice on the sustainable use of fish resources and improvement of fishing conditions. There are three main areas of research: fish and crayfish, impact of environmental factors and management methods of fisheries. These areas are split further into three areas covering the assessment of fish resources, research into the management of fish stocks and environment-orientated fish research, including fish habitat surveys, environmental monitoring and habitat restoration.

Aquaculture

The Aquaculture Unit of the Finnish Game and Fisheries Research Institute aims to ensure that the genetic diversity of endangered indigenous Finnish fish populations can persist. They also maintain the production of fish and crayfish eggs and juveniles, and work on the development of environmentally sound aquaculture methods.

The Finnish Institute of Marine Research (FIMR) is a governmental research institute under

the Ministry of Transport and Communications. The main areas of research are marine physics, biology and chemistry and the Baltic Sea. The research institute provides information for authorities, industries and individuals.

INTERNET LINKS

Department of Fisheries and Game: http://www.mmm.fi/english/fisheries

Statistics Finland: http://www.stat.fi/

Finnish Marine Research Institute: http://www.fimr.fi/

Finnish Game and Fisheries Research Institute: http://www.rktl.fi/