

FISHERY COUNTRY PROFILE	Food and Agriculture Organization of the United Nations	FID/CP/CYP  October 2005
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THE REPUBLIC OF CYPRUS

GENERAL GEOGRAPHIC AND ECONOMIC DATA

Cyprus is the third-largest island in the Mediterranean, situated in the eastern part of the basin. It has a land area of 9 251 km² (of which 3 355 km² are not under the government of the Republic of Cyprus control, on the northern part of the island). Also on the island there are two UK sovereign bases of Akrotiri and of Dhekelia. The continental shelf (2 960 km²) is narrow in the north and wider in the south.



In May 2004, the Republic of Cyprus joined the European Union.

Cyprus has six districts: Nicosia (capital), Limassol, Larnaka, Paphos, Famagusta and Kyrenia. The biggest part of the districts of Nicosia, and Famagusta and all the area of the Kyrenia district are not under the government of the Republic of Cyprus control.

FISHERY SECTOR STRUCTURE

The fishery sector in Cyprus comprises principally marine capture fishery (marine subsector) and aquaculture (marine and freshwater). Recreation fishery and processing and marketing are of minor importance.

Marine Sub-sector

The marine capture fishery consists of the inshore fishery, the trawl fishery and the multipurpose fishery. There is also one purse seiner operating in Cypriot waters. Sport fishery is included in capture fishery, but it is not reflected in the fishery statistics.

Catch profile

The most important species is Picarel (*Spicara smaris*), which is the dominant catch. In 2003, the most significant species by weight were: Picarel, 580 t; Bogue (*Boops boops*), 151 t; surmullet (*Mullus surmuletus*), 130 t; Common cuttlefish (*Sepia officinalis*), 85 t; Red mullet (*Mullus barbatus*), 84 t; and Atlantic bluefin tuna (*Thunnus thynnus*), 79 t. Almost half (44%) of the landed Cypriot catch is classified by species, while the rest of the catch is grouped at family or higher level. Marine capture production for 2003 is shown in Table 1.

Catches showed a clear decline in 1974, related to the civil unrest and the loss of control by the Cypriot government over some fishing grounds. Production started increasing as a result of government measures, and showed a remarkable increase after the 1981 management measures, known as the "Cyprus effect". A similar increase was noted after the 1991 management measures. However, since 1994 there has been a steady decline in landings, falling to less than 1 750 t in 2003.

Landing sites

The catch is landed in all the fishing ports, as well as in the three main harbours. There are 15 recently constructed small ports for fishing purposes, which are sufficient for coastal boats, providing protection and safe harbouring. However, trawlers and certain large multipurpose vessels cannot use the small fishing ports and use the main harbours.

The most important landing place is the harbour of Limassol, followed by the port of Pafos. Larnaca, Latchi, Paralimni and Peyia are important fishing shelters.

Table1. Cyprus marine capture production in 2003

Scientific name	Species (groups)	Ton
<i>Spicara spp</i>	Picarels nei	580
<i>Boops boops</i>	Bogue	151
<i>Mullus surmuletus</i>	Surmullet	130
Osteichthyes	Marine fishes nei	129
Octopodidae	Octopuses, etc, nei	93
<i>Sepia officinalis</i>	Common cuttlefish	85
<i>Mullus barbatus</i>	Red mullet	84
<i>Thunnus thynnus</i>	Atlantic bluefin tuna	79
<i>Xiphias gladius</i>	Swordfish	47
Sparidae	Porgies, seabreams nei	44
<i>Siganus spp</i>	Spinefeet(=Rabbitfishes) nei	44
<i>Thunnus alalunga</i>	Albacore	30
Scaridae	Parrotfishes nei	26
<i>Pagellus acarne</i>	Axillary seabream	25
<i>Pagellus erythrinus</i>	Common pandora	21
<i>Dentex dentex</i>	Common dentex	16
<i>Pagrus pagrus</i>	Red porgy	16
<i>Epinephelus spp</i>	Groupers nei	15
<i>Seriola dumerili</i>	Greater amberjack	13
Elasmobranchii	Sharks, rays, skates, etc. nei	13
Serranidae	Groupers, seabasses nei	12
<i>Merluccius merluccius</i>	European hake	11
<i>Oblada melanura</i>	Saddled seabream	11
Scorpaenidae	Scorpionfishes nei	11
<i>Euthynnus alletteratus</i>	Little tunny(=Atl. Black skipj)	10
<i>Sardina pilchardus</i>	European pilchard (=Sardine)	7
Total		1741

Fishing production means

The segments of the Cyprus fishery are the inshore, the trawl and the multipurpose fishery.

- Inshore fishery involves small wooden boats of 6 to 12 m LOA, which mainly fish with bottom set nets and longlines (passive gears) and fish traps. In 2003, 677 persons were occupied as fulltime fishermen in 500 licensed boats.
- Trawl fishery (mobile gears) consists of 22 bottom fishing trawlers of 21.4 to 26.8 m LOA with 220–750 hp diesel engines. All of them are stern trawlers with steel or wooden hulls. Eight trawlers are licensed to operate in the waters of Cyprus, and the others operate exclusively in international waters in the Mediterranean. In 2003, 144 fishermen were fully employed on these 22 trawlers.

- Multipurpose fishery operates with boats of about 16 m LOA in the waters of Cyprus and in international waters in the eastern Mediterranean. They use nets and bottom longlines, but periodically also use surface longlines, fishing for swordfish and tuna. In 2003, 105 fishermen were fulltime on 38 boats licensed for multipurpose fishing.

Table 2 gives detailed data on the Cyprus fleets and their activities.

Year	Production (tonne)	Working days	No. vessels	of Fleet total size (kw)	Production per working day (kg)
INSHORE FISHERY					
2000	1 341.40	111 391	500	19 130	12.0
2001	1 168.70	101 098	500	16 085	11.6
2002	1 062.80	84 257	500	19 479	12.6
2003	972.50	72 588	500	17 713	13.4
2004	639.38	64 237	500	17 619	10.0
TRAWL FISHERY – CYPRUS WATERS					
2000	313.6	1 000	8	2 474	313.6
2001	415.6	1 305	8	2 474	318.5
2002	375.3	1 412	8	2 500	265.8
2003	394.0	1 388	8	2 500	283.8
2004	536.6	1448	8	2 500	370.6
TRAWL FISHERY – INTERNATIONAL WATERS					
2000	406.8	1 309	12	4 022	310.8
2001	425.2	2 316	16	5 568	183.6
2002	236.7	916	22	7 105	258.4
2003	222.6	1 102	16	6 598	202.0
2004	123.4	874	16	5 127	141.2
MULTIPURPOSE FISHERY					
2000	157.1	1 286	–	–	122.2
2001	237.1	1 615	24	4 386	146.8
2002	211.2	2 006	24	4 008	105.3
2003	132.8	1 446	33	6 753	91.8
2004	408.7	1 868	38	7 089	218.8

Main resources

The main resources exploited are demersals and large pelagics. Small pelagic species are of minor importance.

The demersal species are taken by the inshore and the trawl fishery (national and international waters) and include *Spicara smarís*, *Boops boops*, *Mullus surmuletus*, *M. barbatus*, *Octapodidae*, and molluscs. It also can be noted that *Siganus* spp. are lessepsian immigrants (the only in the list). (in many instances, in the Mediterranean *Spicara smarís* and *Boops boops* are considered as small pelagics due to their behaviour clearly pelagic.)

Large pelagic species are targeted by the multipurpose fishery in national and international waters of the eastern Mediterranean, and include *Thunnus thynnus*, *Xiphias gladius* and *Thunnus alalunga*. The last-named species has been increasingly targeted by the multipurpose and sport fisheries in the last two years and has shown a sharp increase in landings.

Management applied to main fisheries

Cyprus applies a fishing policy that aims at:

- the enhancement of the economic contribution of the capture subsector;
- the safeguarding of the income levels of the persons dependent on the capture subsector; and
- the rational and sustainable management of marine resources so that they are maintained at high levels, on a long-term basis.

These priorities are sought through institutional, economic and financial interventions via administrative and operational activities, as well as control measures.

Fisheries management is regulated through the Fisheries Law and the relevant fisheries regulations. The Republic of Cyprus, as an EU Member, has adopted the *Acquis Communautaire* and applies the European Common Fisheries Policy.

In the trawl fishery, the vessel numbers and power are restricted. Mesh size is 40 mm, the minimum depth of fishing is 50 m, and the fishing season lasts from November 7 to May 31 (a GFCM and EU rule). Also, it is forbidden by GFCM to tow beyond 1000 m depth.

In the inshore fishery, the number of licensed boats is capped by law at 500. Monofilament nets are banned and trammel nets must have a minimum stretched mesh size of 32 mm. The time of day for setting nets is also regulated.

Fishing licence limitations also control the multipurpose fishery. The fishing season for large pelagics lasts from spring to autumn.

Sport fishery is also being regulated, with limitations on the quantity of gear that can be used, time spent on fishing and quantities caught.

Furthermore, the minimum size of fish caught is defined for all fisheries.

Aquaculture subsector

The Republic of Cyprus policy towards aquaculture aims at sustainable and balanced development in order to maximize its contribution to the local fish supply, in accordance with the requirements of the Cypriot and local markets.

Aquaculture in Cyprus mainly refers to marine aquaculture, which has considerable potential for expansion. Open sea cage culture is used. Four private marine fish hatcheries and one shrimp hatchery and fattening unit on land, as well as six private offshore cage farms, are in operation. In addition, one farm for the fattening of bluefin tuna started operating in 2004.

The main species of marine fish farmed on a commercial basis are Gilthead seabream (*Sparus aurata*), European seabass (*Dicentrarchus labrax*) and Bluefin tuna (*Thunnus thynnus*), with much smaller quantities of Sharpsnout bream (*Puntazzo puntazzo*), Shi drum (*Umbrina cirrosa*), Japanese seabream (*Pagrus major*) and Red porgy (*Pagrus pagrus*). Indian shrimp (*Parapenaeus indicus*) is also produced.

The only freshwater fish cultured in Cyprus on a commercial basis is Rainbow trout (*Oncorhynchus mykiss*). Six small trout farms and two small farms for the culture of ornamental freshwater fish are in operation. Even though the production of trout has been stable in recent years, it is directly influenced by weather conditions, such as drought, which can have an impact on the availability of water and consequently on production.

The production of marine fish and fry has been increasing in recent years. In 2004, total aquaculture production reached 3 500 t of market-size fish and 14 million marine fish fry. The total value of aquaculture products was US\$ 34 million.

Aquaculture accounts, in terms of volume, for approximately 70% of Cyprus fisheries production, while in terms of value it exceeds 70%.

Recreational subsector

Recreational fisheries occur in the sea and in freshwater reservoirs. All sport fishermen need a licence for fishing, with the exception of persons who fish with rod-and-line and with speargun. The categories of sport fishing that require a licence are:

- boats with nets and longlines;
- scuba divers;
- divers with lights and spearguns;
- fishing with nets – without boats; and
- fishing in reservoirs.

About 2 000 individuals are licensed sea sport fishermen, and this sport fishery supplies about 15% of the total catch of Cyprus. Its catch is not yet reflected in the fishery statistics, as the attention of the Department of Fisheries and Marine Research (DFMR) has only recently focused on this fishery.

The reservoirs of Cyprus are stocked with freshwater species (trout, carp, etc.) in order to facilitate recreational fishery. In 2004 about 2 500 licenses were issued for reservoir angling.

IV. Post-harvest use

The fish captured by the fishermen are all used for human consumption and are marketed fresh in Cyprus. (all tuna from farms are destined to Japan).

According to the current fish trading system, the prices of the various species and grades of fish are mostly fixed in Cyprus, where the majority of fishermen sell their catch to fish retail shops, which sell directly to consumers. Across Cyprus, the same species or category of fish are offered at the same price by all retail fish shops.

There is no system of price fluctuation, like an auction, or any other process that is based on the market forces of supply and demand. It is not common for fishermen themselves to be engaged in the marketing of their catch.

V. Fishery Sector Performance

Despite its small contribution (0.24%) to Gross National Income, the fisheries sector is an important element in the economy of several coastal areas, since it generates income and work opportunities, thus contributing to the social and economic welfare of the local residents.

Development indicators for 2004 give the Agricultural GDP as US\$ 522.9 million and Fisheries GDP as US\$ 26.8 million.

Currently there are 1 100 individuals directly involved fulltime in the fisheries sector as fishers or in the processing sector. Approximately 1 100 individuals are occupied in ancillary professions, such as boat building, retail fish sales, boat chandlery and fishing gear and equipment maintenance.

In aquaculture, approximately 100 individuals are directly occupied in marine aquaculture and more than 21 individuals are occupied indirectly. Marine aquaculture employs specialized scientific personnel, as well as specialist technical staff, whereas the trout culture farms employ staff with a minimum of technical knowledge. The trout farms, in conjunction with local trout restaurants, create employment and thus provide employment opportunities in mountain areas.

VI. Fishery Sector Development

The overexploitation of the main stocks, the narrow continental shelf and the oligotrophic ecosystem are some major constraints faced by the fishery sector of Cyprus. Fisheries are included in the government development programme, to be promoted and rationally exploited through management measures.

Research is conducted by the Department of Fisheries and Marine Research (DFMR) of the Ministry of Agriculture, Natural Resources and Environment.

Research on the inshore and trawl fisheries of Cyprus has been done for more than two decades, in order to monitor the state of the stocks. The data are collected by surveys with the research vessel of the Department and by commercial trawler surveys. Furthermore, data are collected from private boat catches by random visits to all fishing stations of the government controlled coast.

The species assessed annually are: *Mullus surmuletus*, *M. barbatus*, *Spicara smaris*, *Boops boops* and *Pagellus erythrinus*. These species represent more than 50% of the total catch.

Research on small pelagics is carried out by purse seine surveys in order to assess the effect of fishing by the purse seiner on the total catch.

Research on marine ecology is undertaken through various national and EU-funded projects.

National Projects include:

- The Turtle Project, which aims to protect and conserve marine turtles and their biotopes.
- Research in marine biodiversity and identification of natural sites of ecological interest.
- Studies on the ecological relationships among marine macrobenthos and the ambient environment, especially in areas affected by activities such as aquaculture and desalination plants, as well as studies on marine alien and invasive species.
- Wetland monitoring, which is an ongoing activity that includes wetlands such as the Larnaca Salt Lake complex and others.

EU Projects are:

- MEDVEG, assessing the effects of nutrient release from Mediterranean fish farms on benthic vegetation in coastal ecosystems.
- MedMPA, studying the Development of Marine Protected Areas in the Mediterranean Region.
- Life, Special areas of conservation (Habitat Directive, 92/43/EEC) in Cyprus.

Oceanographic research

DFMR participates in a number of ongoing 5th frame EU oceanographic research projects, most of them aiming to develop operational oceanography in the Mediterranean Sea. These include:

- CYCLOPS – Cycling of Phosphorous in the Mediterranean.
- MAMA – Mediterranean network to Assess and upgrade Monitoring and forecasting Activities in the area.
- MFSTEP – Mediterranean Forecasting System Towards Environmental Predictions.
- MERSEA-strand – Marine Environment and Security for the European Area.
- SEA-SEARCH – Pan-European Network for Ocean and Marine Data and Information Management.
- ESEAS-RI – European sea-level research infrastructure.

Research in aquaculture

Research in aquaculture is being done in the Department's experimental stations, and projects

include:

- Reproduction and development of good quality and large quantity of eggs, larval rearing and mass production of fry for the species *Pagrus pagrus*, *Umbrina cirrosa*, *Siganus rivulatus*, *Dentex dentex*, *Puntazzo puntazzo*, *Accipenser baeri* and others.
- Development of broodstock populations for *Pagellus erythrinus* and other species.
- Development of practical feeds for mass cultivation of *Siganus rivulatus*.
- Development of alternative live food for hatcheries and improvement of existing live food.

VII. Fishery Sector Institutions

The authority responsible for fishery matters in Cyprus is the Department of Fisheries and Marine Research (DFMR) of the Ministry of Agriculture, Natural Resources and Environment.

DFMR was founded in 1964, with a mandate for the development of fisheries and the rational management of marine resources. DFMR Head Office is situated in Nicosia, and there are four District Units located in the four coastal towns of Limassol, Larnaka, Pafos and Famagusta (in Paralimni). There are also two research stations in operation at Meneou and Kalopanayiotis, which are specialized in research and development of marine and freshwater aquaculture, respectively.

DFMR consists of five divisions: Division of Fisheries Resources; Division of Aquaculture Development and Research; Environment Division; Division of Fishing Shelters and Support; and Division of Fisheries Control.

The activities of DFMR concern the development and management of fisheries and aquaculture, marine ecology, the protection of endangered species and habitats, physical and chemical oceanography and the prevention and combat of marine pollution. Furthermore, the Department promotes supporting programmes for fishers, including the construction of fishing shelters. It is also responsible for the enforcement of the relevant legislation.

VIII. General Legal Framework

Further to the *Acquis Communautaire*, the legislation of Cyprus includes the following laws and regulations:

- Law to regulate fishing in the waters of Cyprus: Chapter 135 and 'mendments numbered 44/1961, 109/1968, 2/1970, 9/1972, 19/1981, 210/1987, 170/1990, 22(I)/1994, 102(I) 2000, 61(I)/2001, 106(I)2004, 63(I)2005.
- Regulations made under Section 6 of the Law, namely the Fisheries Regulations of 1990 to 2005: 273/90, 145/91, 94/94, 194/2000, 453/2004, 354/2005.
- Law to provide better Regulation of the Cyprus Sponge Fishery: Chapter 146.
- Law on Oyster Culture: Chapter 143.
- Law on the protection of fish: Chapter 58.
- Law 77/1971 on Fishing Vessels (Registration, Sales, Transfer and Mortgage) and implementing Regulations of 1972.
- Law 117/2000 to Regulate Matters Related to Aquaculture.
- Law 171/1990 providing for regulation, management and operation of fishing shelters.