



Fishery and Aquaculture Country Profiles

The Republic of Maldives



Part I Statistics and main indicators

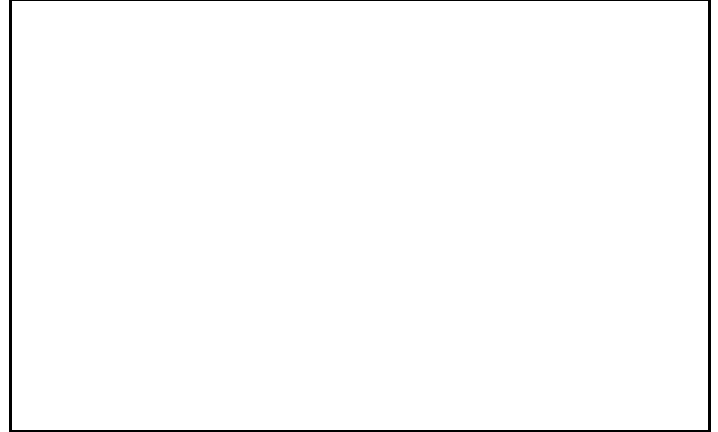
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- United Nations Geospatial Information Section <http://www.un.org/Depts/Cartographic/english/htmain.htm>
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Part I Statistics and main indicators

Country brief

Prepared: May 2019

The Republic of Maldives is an archipelago of 26 natural atolls, consisting of 1 190 coral reef islands in the Indian Ocean. The islands are scattered over an area of 750 km from north to south and 120 km from east to west covering around 90 000 km², and about 99 percent of the country's territory consists of ocean.

The abundance of marine natural resources forms the basis of the country's two most important economic activities - fisheries and tourism. The fisheries sector has traditionally been the major contributor to the country's economy. Nevertheless, since 1978, the fisheries contribution to the GDP has shown a continual declining trend, mainly due to the rapid growth of the tourism sector in the economy and diversification of the fishery related businesses into other economic sectors such as export and labour. However, "the fisheries sector's contribution to the GDP has remained significant, both in terms of employment, value added production and export returns" (MPND, 2004), providing an important source of income. Fisheries and fish processing account for 5.1 percent of GDP in 2013 and 59 percent of the country total merchandise trade. In 2017, exports of fish and fishery products were valued at USD 196.2 million, while imports at USD 31.7 million.

In 2017 there were around 17 589 fishers employed in the fisheries sector engaged in skipjack, yellowfin and reef fisheries. The sector is also the main domestic food provider – Maldives having perhaps the highest per capita fish consumption in the world at 142 kg in 2016.

In the past ten years, the fisheries sector has modernized and expanded, with new and larger vessels catching tunas (mainly skipjack and yellowfin, which, together represent over 90 percent of total catch). The annual fish harvest had been increasing up to a peak of over 186 000 tonnes in 2005 and 2006. Since then, annual fish catch declined considerably reaching the minimum level in 2009 with 117000 tonnes, but increasing again since then up to 143300 tonnes in 2017. Correspondingly, both number of fishers and number of boat actives reduced significantly. All other fisheries except tuna fisheries target 'reef fishery resources' that include sharks, jacks, scads, breams, and jobfish.

Aquaculture has been recognized an important agenda items for development and since 2001 some technical personnel had been financed by development funds to be trained in Southeast Asian countries in mariculture including pearls, groupers, snappers, seaweeds and ornamental fish. However, there has been no substantive progress in aquaculture development apart from partial success in fish breeding. No commercial aquaculture production operation exists so far. Since recently, mariculture was recognized as potentially important activity.

The Maldives is a Party to the 1982 United Nations Convention on the Law of the Sea (UNCLOS) since September 2000 and has ratified the 1995 UN Fish Stocks Agreement. It is also a party to: Biodiversity, Climate Change-Kyoto Protocol, the Montreal Protocol, the UN Framework on Climate Change, and MARPOL Ship Pollution. Maldives is a member of the Intergovernmental Organization for Marketing Information and Technical Advisory Services for Fishery Products in the Asia and Pacific Region (INFOFISH) and the Bay of Bengal Programme (BOBP).

Membership in Regional Fishery Bodies

- Bay of Bengal Programme Inter-Governmental Organization (BOBP-IGO)

- Indian Ocean Tuna Commission (IOTC)
- Southwest Indian Ocean Fisheries Commission (SWIOFC)

General geographic and economic indicators

Table 1 – General geographic and economic data - Maldives

Area (including sea with territorial water):	90 000 km ²
EEZ	859 000 km ²
Length of continental coastline:	Archipelagic country of 1 190 islands
Population (2007):	301 000
GDP at constant price (2008):	USD 902 million
GDP per head (2008):	USD 2 912.3
Agricultural GDP (year):	n.a.
Fisheries GDP (year):	6% of GDP

FAO Fisheries statistics

Table 2a – Fisheries data (i) - Maldives

	Production	Imports	Exports	Total Supply	Per Caput Supply
	Thousand tonnes liveweight				kg/year
Fish for direct human consumption	143 597	1 742	102 676	43 363	144.1
Fish for animal feed and other purposes					

Table 2b – Fisheries data (ii) - Maldives

Estimated Employment (2008):	
(i) Primary sector:	14 066
(ii) Secondary sector:	6 000
Gross value of fisheries output:	-
Trade (2008):	
Value of fisheries imports:	USD 8 509 692
Value of fisheries exports:	USD 124 347 146

This section provides supplementary information based on national and other sources and valid at the time of compilation. References to these sources are provided as far as possible.

Production sector

The Republic of Maldives is an archipelago of 26 natural atolls, consisting of 1 190 coral reef islands in the Indian Ocean. The closest neighbours to the Maldives are India, Sri Lanka and the Laccadives Islands. There are around 200 islands which are inhabited, 89 islands used exclusively as tourist resorts and the rest of the islands are uninhabited and mostly used for industrial and agricultural purposes. The 1 190 islands are grouped into 20 atolls for administrative purposes. The islands are scattered over an area of 750 km from north to south and 120 km from east to west covering around 90 000 sq km and about 99% of the country's territory consists of ocean (DPND, 2009).

Almost all of the natural resources are in the form of multi-coloured coral reefs, tropical ocean fish of every colour and shape, crustaceans, turtles, seaweed and shells. The abundance of these natural resources forms the basis of the country's two most important economic activities - fisheries and tourism.

Fisheries account for 6 % of GDP, 11% of employment and 98% of the country's physical export commodities (DPND, 2009).

The fisheries sector has traditionally been the major contributor to the country's economy. Nevertheless, since 1978, the fisheries contribution to the GDP has shown a continual declining trend. This is mainly due to the introduction and rapid growth of the tourism sector in the economy and diversification of the fishery related businesses into other economic sectors such as export and labour. However, "the fisheries sector's contribution to the GDP has remained significant, both in terms of employment, value added production and export returns" (MPND, 2004).

There are no inland fisheries in the Maldives and aquaculture is just starting.

Marine sub-sector

Catch profile

Skipjack tuna is considered to be the most important species in the Maldivian fishery. It contributes about 65-75% of the total fish catch, followed by 10-17% of yellowfin tuna. The two species are caught predominantly by pole and line fishing.

In the Maldives, the term 'reef fishery resources' refers to all fisheries except tuna fisheries. These are reported as one category in the national statistics and hence the reef fisheries component in the statistics includes reef and oceanic sharks, jacks, scads, breams, jobfish, sail fish, seer-fish, rainbow runners and dolphin fish (*mahi mahi*). The marine environment, which constitutes a large part of the country's territory, has been used for fishing from time immemorial. In the past ten years, the fisheries sector has modernized and expanded, with new and larger vessels landing catches of tuna (mainly skipjack). The annual fish harvest has increased from 118 115 metric tonnes in 1998 to a peak of 185 923 metric tonnes in 2005. However, annual fish catch has

declined considerably in recent years. In 2008, the total catch fell to 133 086 tonnes, of which 66% is skipjack tuna, 17% yellowfin tuna, 5% other tuna species and 12% is other marine fish (MOFA, 2009).

Landing sites

In the Maldives, fish is landed on to almost all the inhabited islands, and few of the uninhabited islands that carry out fisheries related industrial work. Most of the fish caught are landed onto collector vessels placed throughout the country. These vessels belong to the 4 skipjack tuna collection permit holders, who have exclusive contracts with the government to purchase, process and export skipjack fish from designated fishery zones. Almost all of the yellowfin tunas are landed at one of the (12) EU certified processing facilities and exported to Europe. Most of the facilities are located close to the capital city of the Maldives.

Fishing practices/systems

The number of vessels engaged in fishing has declined gradually over the years in spite of the considerable increase in catch over the same period. There has been a tendency in the past few years for the vessel owners to build larger vessels with engines of higher horsepower. Modern vessels (mechanized Masdhoni) are equipped with satellite navigation systems, hydraulic line haulers, fish finders, sonars and other technological equipment. These vessels also have a special compartment for crew accommodation and are used mainly for long trips (2-3 days) as opposed to the single day trips that were more predominant in the past.

The total fishing fleet in 2008 consisted of 979 vessels, of which 867 were mechanized pole and line vessels (Masdhoni), 40 mechanized trolling vessels (Vadhu Dhoni), 17 sailing trolling vessels and 7 row boats (Bokkura). Mechanized Masdhonis were accountable for the biggest share (more than 95%) of the annual catch followed by Vadhudhonis (trolling vessels) in recent years (MOFA, 2009).

Table 4 - Number of fishing vessels by type from 2000 to 2008 - Maldives

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Mechanized Masdhoni	1 137	1 128	1 102	1 104	1 092	1 002	923	894	867
Mechanized Vadhudhoni	58	49	59	46	67	56	44	42	40
Sailing Vadhudhoni	72	40	9	4	17	22	17	16	17
Sailing Masdhoni	41	66	90	115	8	5	3	10	34
Row boats (Bokkura)	19	13	16	18	26	18	14	16	7
Foreign longliners	49	20	43	31	36	37	24	25	13
Recreational speed boats						2	1	2	1
Total	1 376	1 316	1 319	1 318	1 246	1 142	1 026	1 005	979

Source: Statistics Unit, Ministry of Fisheries and Agriculture

Tuna fishery in the Maldives is highly seasonal with catches peaking around April and November, at the onset and offset of Northwest monsoon. However, the fishing season has followed irregular trends in the past few years. This is believed to be due to the change in local weather caused by global climate change and the impact of the latter on seawater temperature.

(1) Most of these vessels are from Viet Nam and Taiwan Province of China. They are licensed to fish in the EEZ of the Maldives.

Main resources

Skipjack tuna fishery

Skipjack tuna or '*Kalhubilamas*' as referred to in the Maldivian language, is considered to be one of the most important species caught in the Maldivian tuna fishery and comprises around 70% of the total catch. Skipjack tuna fishery is primarily a live-bait pole and line fishery and fishermen usually go out for single-day trips. The tuna pole and line method requires copious amounts of live bait which are caught from lagoons and reefs. Industrial licensed longliners also catch skipjack tuna as a by-catch which are usually frozen and exported. Skipjack tuna are exported either as frozen, canned or other processed products.

The main export market of frozen skipjack is Thailand and for canned skipjack it is Germany and the United Kingdom. There is also a significant portion of dried or smoked fish, commonly known as '*Maldivi Fish*', exported to Sri Lanka by the small-scale processors.

Yellowfin tuna fishery

Yellowfin tuna or '*Reedhoo Uraha Kanneli*' as referred to in the Maldivian Language, is the second most important species of fish caught in the Maldives. Yellowfin tuna catches have increased dramatically in recent years.

The Maldivian yellowfin tuna fishery is essentially a live-bait handline fishery and fishermen usually spend 4-5 days at sea before they land their fish. Catches by traditional handline vessels account for over 95% of the total yellowfin tuna catch (MOFA, 2009). They are also caught by hand lining and trolling and these methods usually catch large size yellowfin tuna of more than 70 cm. In addition, longliners operating in the waters of the Maldives Exclusive Economic Zone (EEZ) take deep swimming adult tuna as well.

The Maldives 'yellowfin tuna' catch records include a small number of bigeye tuna. This is mainly because the yellowfin fishery in the Maldives is carried out by the handline and hence the gear is not set deep enough for bigeye tuna. No separate statistics are available for this species, but preliminary studies suggest that bigeye tuna (*Thunnus obesus*) may account for up to 5% of the total yellowfin catch (Anderson and Hafiz, 1991).

With the increase in price and demand for yellowfin tuna in the fresh fish markets in Japan, Europe and America, there has been a huge shift in effort from the skipjack tuna industry to the yellowfin tuna industry. Fishermen also tend to change between pole and line fishery for skipjack and handline fishery for yellowfin, depending on the fishing season.

The major portion of the yellowfin tuna caught in the Maldives is exported, while the rest is mostly used locally by hotels and restaurants. The yellowfin tuna industry is competitive and new fish processors are free to participate. Yellowfin tuna is exported mainly as frozen loins and steak and fresh to Japan, Europe, the United States, the United Kingdom, France and Germany and canned to the United Kingdom and Germany.

Reef fishery

The reef fishery resources were hardly exploited until the late 1990s. However, with the increase in socio-economic benefits from the expansion of the tourism sector, together with the improved air and sea transportation, reef fisheries have developed significantly for both local consumption and export.

Aquarium fishery has recently started in the Maldives and has begun to pick up pace. This fishery is also considered as a reef fishery.

The export-based grouper fishery started in 1994. At first, fishing was concentrated in the central atolls, but later it has spread to all over the country.

The reef fishery reached its peak in 1997, when exports peaked at 0.9 million groupers but since then it has

continued to decline. Now, the reef associated demersal species are heavily exploited, mainly by tourists, recreational anglers and industrial fishermen targeting for export markets. The main gear used in reef fishing is a simple, single hook hand line. Live-bait hand lining is also sometimes carried out. Export markets of reef species include the United Kingdom, France, Italy, Russia, Switzerland, Japan, Germany and Sri Lanka. Groupers are exported in live or chilled forms mainly to China, Hong Kong SAR, Taiwan, Province of China and Thailand

Management applied to main fisheries

The key aspects of the current fisheries management regime are:

- Common property resource regime
- Management, exclusion and alienation rights vested in government
- Access, withdrawal and other use rights held by citizens
- Boundaries determined by government define restricted areas, species, gear and methods
- Monitoring, control and surveillance is undertaken by government.

Fisheries management goals are:

- Maximize benefits to Maldivians from sustainable use of marine resources
- Assist fishing communities in rational and sustainable use of fisheries resources
- Strengthen resource management through participatory governance
- Promote a voluntary compliance-based system

Key management issues that need to be addressed include:

- Lack of a licensing regime in the coastal fisheries zone to complement the fishing vessel registration system
- Use of destructive fishing gear and methods
- Misreporting of catch data
- Harvesting of banned species, and use of illegal fishing gear
- Illegal fishing in prohibited areas
- Poaching in the outer EEZ by foreign vessels
- IUU
- Concern about potential over-exploitation of some reef fish stocks
- Monitoring, control and surveillance of coastal fisheries
- Inadequate human resources and assets for MCS

Ongoing activities to strengthen fisheries management include:

- Revision of Fisheries Law and regulations to establish an appropriate regime for sustainable use of fish resources
- Pilot initiatives to develop participatory management arrangements for reef resources
- Strengthening institutional arrangements and building human resource capacity
- Programs to promote fishers awareness, capacity and support for sustainable management
- Strengthening of reporting, monitoring and surveillance arrangements for enforcement

Currently, the fisheries management body in the Maldives has very few management measures placed in the local harvesting sector as mentioned above. Regulatory measures are put in place in the skipjack tuna and yellowfin processing sector. The government regulates the skipjack processing sector by limiting the number of post harvesters which might indirectly affect the catch levels. The yellowfin processors have to pay a royalty charge depending on the weight of the fish which could also indirectly affect the catch limits.

The vessels operating in the EEZ require a licence and are strictly monitored with a Vessel Monitoring System (VMS). They are also charged with royalties on total catch subject to a quota. However, local fishermen

suspect that a large amount of unlicensed vessels operate in the EEZ. There have been several cases of unlicensed vessels being caught by local fishermen and the Coast Guard of the Maldives National Defence Force (MNDF). In reef resources, management regulation has been set only for shark species. Shark fishing has been recently banned within 12 miles from all the atolls and the 2 seamount tuna fishing grounds and within a 3 mile radius from the Fish Aggregating Devices (FADs).

Fishing communities

In the Maldives fishing has been the main occupation of the island communities for centuries. Men go out for fishing, while the women fisher folk produce dried and salted fish generally for export to Sri Lanka.

The harvesting sector is mainly controlled by individual fishermen. Fishermen, frequently individually and using various finance options, build their own boats. Income earned by these vessels is distributed evenly amongst the crew on a weekly basis. An extra share is allocated to the master fishermen, to the vessel owner and for vessel repair and maintenance.

Fishermen are paid on the spot when they sell fish to the fish collector vessels which operate throughout the country. The fishermen are free to sell their fish to any collector vessel. Some of the fishing vessel owners in the yellowfin tuna industry have had agreements with the yellowfin purchasing companies, which stipulated that catches could only be sold to the purchasing company in question. In order to protect the livelihood of the fishermen, and to strengthen their bargaining position vis-à-vis the post harvest companies, the Maldives Government has enforced a minimum price under section 12 of Skipjack Purchase and Export Regulation 2001. Although the processing companies have never bought at a price close to the base price, the government has resisted pressures to abolish the minimum price.

Inland sub-sector

There are no inland fisheries in the Maldives. Capture fisheries have always been the mainstay of the country's economy. However, recently mariculture was recognized as potentially important in the Maldives.

During the past decade technical personnel have been sent abroad for training in mariculture, particularly in the culture of marine pearl, groupers, snappers, seaweed and ornamental fish. Enhancement of sea cucumbers is seen as a possibility and hatchery/nursery development of sea cucumbers is ongoing. Since 2002, attempts have been made to rear marble grouper (*Epinephelus fuscoguttatus*) and two species of snapper (*Lutjanus spp.*).

Aquaculture sub-sector

A brief overview of the main species cultured, production means and management framework. This overview acts as introductory statement to the link to National Aquaculture Sector Overview (NASO) in case a NASO has been developed for this country. This overview might be more comprehensive in case of absence of NASO.

Recreational sub-sector

With the rapid growth of the tourism sector, there has been a special emphasis on the recreational fisheries in the Maldives. The sector has picked up momentum in the past few years with the rapid expansion of tourism in the outer atolls. It is mainly practised by tourists, but locals do go out for night fishing trips. Also few entrepreneurs have embarked in the sport fishing business.

Post-harvest sector

Fish utilization

Skipjack tuna caught by fishermen is sold to collector boats and to collection centers operated by the five companies authorized to collect skipjack tuna. A portion of the catch would be taken by the vessel crew to take back to the islands for consumption. This would also include rejects from the collector vessels. These collector vessels brine freeze the fish and take it to collection centers for storage, from where the fish is loaded to carrier vessels for export as frozen products, or taken to processing facilities for processing, including canning.

There are 11 European Union certified yellowfin processing factories in the Maldives. Most of the yellowfin tuna vessels operate through an agreement with these purchasing companies. The fish caught by the vessels is offloaded directly to the factories where they are processed.

There are few reef fish collection centers operated in a small-scale throughout the Maldives. Fish are mostly exported alive.

The main export markets include Thailand, Sri Lanka, member countries of the European Union, Russia, Malaysia, etc. Frozen products are mainly exported to Thailand while the dried fish are exported to Sri Lanka as 'Maldivian fish'. In 2008, 56% of fish exports were frozen products, 28% fresh, 8% dried, 8% preserved and 1% live.

Fish markets

There are no fish auction centers in the Maldives, but there are small markets in fish landing centers.

Socio-economic contribution of the fishery sector

Role of fisheries in the national economy

Although tourism, during the past decade, has grown considerably, fisheries continue to provide an important source of income for (about 20%) the population; it is estimated that about 14 000 individuals are involved in full-time fishing activities.

Supply and demand

Supply

The fish harvesting sector in the Maldives has increased its production from around 20 thousands tonnes in the mid 1960s to the peak of 185 923 tonnes in 2005 during the past four decades. This huge increase in the harvesting sector's performance is accredited mainly to the increase in effective fishing power of vessels.

The state owned company, Maldives Industrial Fisheries Company (MIFCO), enjoyed a complete monopoly until 2003, when the government decided to privatize the skipjack tuna post harvesting sector. At the moment, five processing companies operate throughout the country with Exclusive access to the purchase and processing of skipjack tuna. However, there is a completely open market in the yellowfin tuna processing.

There are 11 European Union (EU) approved processing facilities operating throughout the country.

Demand Fish and fishery products have been consumed by the locals for centuries. The trend has remained the same over the years and hence the demand has remained the same.

Trade

Historically, the fisheries sector was the major source of employment and foreign exchange earnings. In 2008, fisheries products accounted for almost 99% of the value of the Maldivian export.

Food security

Maldives import almost everything except fish and fishery products and a few varieties of vegetable and fruits. Fish has been served as the basic source of protein for the entire population.

Employment

Currently there are around 14 100 fishermen employed in the fisheries sector engaged in skipjack, yellowfin and reef fisheries. There would be an estimated 6 000 jobs in the secondary sector engaged in processing, marketing and administrative work.

Rural development

Fisheries play an immense role in the development of rural communities. Fishing is the major economic activity in those communities and the unique concept of the fishery in the Maldives enables the revenue generated to be distributed evenly in those communities.

Trends, issues and development

Constraints and opportunities

The constraints in the fisheries sector include lack of capacity in the regulatory body – the Ministry of Fisheries and Agriculture - to coordinate and enable the sustainable development of the sector.

Second, there is weakness in the legal framework and there are no well defined fisheries management plans covering each of the fisheries management units. Third, because of the lack of fisheries management systems (defined in plans), most of the fisheries, and especially offshore, operate under free and open access conditions. Fourth, although infrastructure (harbours, electricity, roads, transport, etc.) development in the Maldives has increased significantly in recent years, there are still some deficiencies, in particular in the atolls, which limit, for example, the movement and trade of perishable fish. Fifth, while investment from private sector in fisheries, particularly in processing facilities for export trade purposes, has increased recently, the total number of enterprises is small, and overall, ‘fish business’ expertise, particularly at the international level, is limited (Cunningham and Neiland, 2007) There are several opportunities. First, the the global market for seafood offers a wide range of market opportunities and niches which the Maldives fisheries sector could exploit (For example there is increasing demand from consumers for high quality fish from sustainable sources and for which actual fishing has minimal environmental impact). Second, the Maldives could learn from an emerging ‘international best practice’ in fisheries management to develop its own fisheries management systems, capitalizing on the high level of commitment by both government and non-government stakeholders to create an efficient, wealthy and sustainable fisheries sector in the Maldives (Cunningham and Neiland, 2007).

Government and non-government sector policies and development strategies

The fisheries policies of the government are as follows:

1. Expand the scope of the fisheries sector in the country's economy. Open up the market to ensure that local fishermen benefit from the increases in the price of fish in international markets.
2. Ensure sustainable development of fisheries to the benefit of present and future generations.
3. Provide training and financial assistance to fishermen.
4. Promote research in fisheries, increase fish breeding and productivity and diversify fish products.
5. Bring the Exclusive Economic Zone under the full control of the Maldivian government as the fishery industry is the main source to support livelihood of the fishing communities.

Research, education and training

Research

MOFA is responsible for exploratory tuna fishing, investigation of reef fish resources, cataloguing of fishing gear, establishment of a tuna data base and analysis of statistics and socio-economic surveys.

With the assistance from several bilateral and multilateral donors, research activities are focused on the assessment of tuna stocks, reef fish and other marine resources and on sustainable management of these resources. The current researches underway through Marine Research Center (MRC) are as follows:

- A regional and local tuna tagging program in collaboration with the Indian Ocean Tuna Commission (IOTC).
- A study on skipjack tuna behavior, using acoustic tags, near Fish Aggregating Devices (FADs) in collaboration with the French Institute of Biodiversity.
- A study on pelagic environment biodiversity in collaboration with the French Institute of Biodiversity.
- A coral reef monitoring program.
- A reef fishery research program.
- A study on grouper spawning and aggregation
- A pilot reef fish tagging program in collaboration with the Atoll Ecosystem Conservation Project.
- A study on pearl culture.
- Studies on grouper culture.

Education and training

The Maldives Fisheries Training Center has been established on the 8th June 2009. The center was established to provide training to the existing fishermen and fish processors and to people who are interested to join the fisheries sector. It would also disseminate fisheries related information to the public through various media. The training center would provide courses on product development, product research, fisheries engineering and technology.

Foreign aid

In the past, considerable bilateral and multilateral assistance was granted for fisheries development. At present several projects are operating in the country. Most of the projects in the last four years have been directed to the rehabilitation of Tsunami affected areas, especially in the fishing communities. The Japanese government has contributed to develop a regional program for participatory and integrated Agriculture, Fisheries and Forestry Development for the long-term rehabilitation and development in Tsunami affected areas. The International Fund for Agriculture Development also provides assistance to the Post-Tsunami agriculture and Fisheries

rehabilitation program. The bulk of foreign support in the past has been directed towards the development of the post-harvest sector. The FAO supported Bay of Bengal Program is assisting the Government in the exploratory fishing for tuna and reef fish, and is supporting to set up a fisheries management system. The World Bank is assisting in the development of a pilot Vessel Monitoring System (VMS) system.

Institutional framework

The major governing regulation is the Fisheries Act (Act no: 5/87), which empowers the Ministry of Fisheries and Agriculture (MOFA) to establish and administer regulations for sustainable utilization and conservation of fisheries stocks and living marine resources, including protecting threatened species and establishing conservation areas.

Other applicable laws include the Ocean Territories Act (Act No. 6/96), Environment Protection and Preservation Act (Act No. 4/93), and other laws, decrees, and regulations relating to the use of the exclusive economic zone (EEZ), fisheries, environment, business, foreign investment, and so on.

Therefore, the Ministry of Fisheries and Agriculture (MOFA) is the lead agency tasked with fisheries management and development. The mandates of the MOFA include:

- Formulate and enforce laws, regulations and policies required for sustainable development of fisheries and marine resources, including those relating to Maldivian faros reefs and lagoons;
- Formulate and implement policies and strategies required for sustainable development of fisheries, agriculture and marine resources of the nation;
- Protect and conserve the marine and terrestrial biodiversity of the nation;
- Collection, processing and publication of fisheries and marine resources data and statistics;
- Protection of endangered species;
- Development and installation of fish aggregating devices (FADs);
- Formulation and implementation of development projects which enhance the socio-economic standard of the people;
- Resources monitoring and conduct of multi-disciplinary research;
- Collect, catalogue and maintain samples of the marine and terrestrial biodiversity of the nation; and
- Formulate and implement regulations on scientific exploration and research into the Maldivian waters, seas, seabed, subsoil and soil.

Surveillance, monitoring and enforcement To provide a credible dissuasion for violations of laws and regulations, the coast guard section of the Maldives National Defense Force (MNDF) is in charge of the surveillance, monitoring and enforcement. The purpose is to ensure the observance of agreed measures for both locals and foreigners. An additional role is to collect information on fishing agreements, decide on national policies and advise on strategic and tactical decisions about enforcement.

The modes of enforcement are air patrol, sea patrol and inspection in harbours. The enforcement modes used depend on the resources available, the nature of the regulations and the characteristics of the fishery.

Other responsible bodies

In addition to the above there are various other institutions involved either directly or indirectly in the fisheries sector. They play an important role in their respective areas of responsibility and have supportive functions in the sector. They are:

- Ministry of Economic Development (MED) – responsible for the licensing of all commercial fishing vessels including foreign fishing vessels and for the determination of the number of licences to be issued, the negotiations and other dealings with licensees. The Ministry also issues export permits for the local

tuna and reef fish trade.

- Ministry of Tourism, Arts and Culture (MTAC) – responsible for ensuring the marine-related interests of the tourism industry.
- Ministry of Defence and National Security Service – Coast Guard – responsible for the monitoring of vessel positions and enforcement of EEZ laws and regulations.
- Ministry of Home Affairs – responsible for the collection of fisheries related data and to ensure compliance with the regulations and fisheries laws at island and atoll levels.
- Ministry of Housing, Transport and Environment- Transport Division- responsible for the registration of fishing vessels and for safety checks and training of officers and crew.
- Maldives Customs Service – responsible for monitoring export fish trade and quality as well as the transshipments by foreign fishing vessels.
- Ministry of Health – responsible for inspection for food safety and for meeting export quality standards.
- Environmental Protection Agency - Environment Division- responsible for the enforcement of the Environment Act of 4/93 and for establishing marine protected areas and reserved diving sites.

(2) ‘Faros’ is a word used for reefs, especially in the context of the Maldives. It refers to the lagoons and reefs without any island inside the rim of the atolls

Legal framework

The legal framework for the present fisheries management system is constituted by:

1. the Constitution of the Republic of Maldives;
2. official mandates of relevant government agencies, and
3. relevant laws, regulations, decrees and guidelines.

The major governing regulation is the Fisheries Act (Act no: 5/87), which empowers the Ministry of Fisheries and Agriculture (MOFA) to establish and administer regulations for sustainable utilization and conservation of fisheries stocks and living marine resources, including protecting threatened species and establishing conservation areas.

Other applicable laws include the Ocean Territories Act (Act No. 6/96), Environment Protection and Preservation Act (Act No. 4/93), and other laws, decrees, and regulations relating to the use of the exclusive economic zone (EEZ), fisheries, environment, business, foreign investment, and so on.

The Fisheries Act (5/87) is primarily an act that unequivocally provides the MOFA with the mandate to oversee all fisheries activities in the country. In addition, it describes the conditions for the licensing of foreign vessels or joint ventures in the EEZ, provides for apprehension of vessels, arrest, and penalties, and describes the Coastal Fishery Zone (CFZ).

The Fisheries Act is supplemented by regulations, rules, and presidential decrees. Various MOFA regulations include those on: fishing in lagoons; prohibitions in fishing; banned fishing gear and methods; protected marine life; protection of certain species from harvest, prior permission required for non-traditional gear; reporting violations of the Fisheries Act and regulations; reporting of all fish catch and effort; issuing of licences to fish in the Maldivian EEZ; describes licence issuance by the Ministry of Trade and Industries (MTI) and requirements for the vessels licensed to fish in the EEZ; marine scientific research in Maldivian waters; sets out requirements for vessel-based research operations and a required application form; catch and export of yellowfin/bigeye tuna; installation of fish cages and culture in fishing lagoons; and installation of FADs on fishing grounds.

Other relevant regulations under other laws and decrees include protection of species by banning export; declaration of marine protected areas and export quotas of selected species.

The Environment Protection and Preservation Act of the Maldives (Act No. 4/93) and its supporting

regulations provide a second tier in the management of marine resources. The Act recognizes that protection and preservation of land and water resources, flora and fauna, and all natural habitats are important for the country's sustainable development.

More information at: **FAOLEX legislative database**

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Additional information

FAO Thematic data bases

- **FAO Country Profile**
- **Marine Resources reports (FIRMS)**
 - Albacore - Indian Ocean
 - Bigeye tuna - Indian Ocean
 - Black Marlin - Indian Ocean
 - Blue marlin - Indian Ocean
 - Bullet tuna - Indian Ocean
 - Dogtooth tuna - Maldives
 - Frigate tuna - Indian Ocean
 - Frigate tuna - Maldives
 - Indo-Pacific king mackerel - Indian Ocean
 - Indo-Pacific sailfish - Indian Ocean
 - Kawakawa - Indian Ocean
 - Little tuna - Maldives
 - Longtail tuna - Indian Ocean
 - Marine resources - Eastern Indian Ocean
 - Narrow-barred Spanish mackerel - Indian Ocean

- Reef fishes - Maldives
- Sharks - Global
- Skipjack tuna - Indian Ocean
- Squid - Global
- Striped Marlin - Indian Ocean
- Swordfish - Indian Ocean
- Tuna and tuna-like species - Global
- Yellowfin tuna - Indian Ocean
- Fishery reports (FIRMS)
 - Indian ocean : Bottom longline deepwater longtail red snapper fishery - high seas : 2009
 - World : Deep-sea fisheries : 2009
 - World : Global Tuna Fisheries : 2009
- FAOLEX legislative database
- Database on Introductions of Aquatic Species
- Regional Fishery Bodies (RFB)
 - Bay of Bengal Programme Inter-Governmental Organization (BOBP-IGO)
 - Indian Ocean Tuna Commission (IOTC)
 - Southwest Indian Ocean Fisheries Commission (SWIOFC)
- FAO Fishing Vessels Finder (FVF)

Publications

- List of relevant FAO publications

Meetings & News archive

- Meetings archive
- News archive

