Maldives Marine Aquarium Fishery Management Plan

DECEMBER 2020

UNOFFICIAL TRANSLATION

Government Gazette Reference: Volume 49, Issue 253, 16 December 2020

Ministry of Fisheries, Marine Resources & Agriculture

Malé, Maldives

Maldives Marine Aquarium Fishery Management Plan

December 2020

Contributing Authors:
Hawwa Raufath Nizar, Munshidha Ibrahim, Aminath Lubna

Other contributors:
Mohamed Ahusan, Adam Ziyad, Ahmed Shifaz, Ahmed Najeeb, Hussein Zameel, Hussain Sinan, Mohamed Shimal, Adam Manik.

Reviewed by:
Dr. Charles Anderson and The Environmental Markets Solution Lab (emLab), UCSB

Acknowledgement:
The Ministry acknowledges the various government agencies and stakeholders that contributed towards making this management plan holistic and inclusive. The Ministry also thanks the island councils for playing a crucial role in ensuring that the concerns of fishers and sector stakeholders are directly heard at the highest level of fisheries governance and policy making.

The Ministry highly appreciates the time, meticulous contributions and the wealth of knowledge shared by fishers, without whom this plan would not have been possible. Their meaningful insights and constructive suggestions have been invaluable.

The Ministry recognises Maldives Marine Research Institute's efforts to produce research on our marine resources and provide technical support for evidence-based policy making.

The Ministry acknowledges and thanks the Blue Marine Foundation for their research on the fishery, which helped further refine this Plan.

Sincere thanks to the World Bank funded Maldives Sustainable Fisheries Resources Development Project (SFRDP) for providing the Ministry with the essential resources and financial support for the formulation of this plan.

For bibliographic purposes, this management plan shall be cited as:

Ministry of Fisheries, Marine Resources and Agriculture (2020), *Maldives Marine Aquarium Fishery Management Plan.* MoFMRA, Malé, Maldives

Ministry of Fisheries, Marine Resources and Agriculture
7th Floor, Velaanaage
Ameer Ahmed Magu
Malé, 20096
Republic of Maldives,

www.fishagri.gov.mv

Table of Contents

List of Tables

List of Figures

Foreword

Praise be to Allah, the Creator of the oceans, marine life and other blessings upon the earth. Prayers and peace be upon our Prophet, Muhammad, who taught us the righteous way to make use of these blessings.

The oceans, lagoons and reefs are national heritages that are inextricably linked to our culture, tradition, and the Maldivian identity. The Maldives fisheries are heavily dependent on this heritage. Hence it is our utmost responsibility to ensure that they are faithfully passed down to our future generations. The Ministry is committed to working towards achieving this goal, and to implement the government's policies on the expansion of the blue economy agenda. To this end, we have compiled this plan to steer our efforts towards maximising long-term benefits of marine resources to Maldivians.

Since the time of our forefathers, the fishery sector has been a major pillar of our economy, upon which our incomes, our livelihoods and our sustenance are dependent. Therefore, the measures included in these fisheries management plans are geared towards the sustainable development and management of these fisheries resources. These legally recognised fisheries management plans mark a watershed moment in the history of marine resource management in the Maldives.

Fisheries resources are common goods, of which all Maldivians hold a share. These plans have been developed based on principles of the Precautionary Approach, Ecosystem-Based Management, Sustainable Development and Equity, with due regard to the various and variety of interactions within an ecosystem and to ensuring timely and cost-effective measures are taken to safeguard ecosystems and prevent irreparable damage to them. This process has been informed by meaningful suggestions and constructive feedback from various stakeholders including fishers, others engaged directly and indirectly within the fisheries sector as well as civil society organisations working towards natural resource management, conservation, and protection.

The fisheries management plans will be the primary basis for guiding the authorities as well as stakeholders in the sustainable management of the fisheries sector in the Maldives. These plans comprise of developmental goals and objectives for each fishery, measures and actions to achieve them, the roles and responsibilities of stakeholder agencies in the implementation of these measures and an implementation timeline for the measures. It is my sincere hope that these plans contribute towards realising the vision set forth by the Fisheries Act of the Maldives.

—

Zaha Waheed

Minister of Fisheries, Marine Resources
and Agriculture

Abbreviations

FIS	Fisheries Information System
IGO	Intergovernmental Organisation
LGA	Local Government Authority
ME	Ministry of Environment
MFDA	Maldives Food and Drug Authority
MIRA	Maldives Inland Revenue Authority
MMRI	Maldives Marine Research Institute
MNDF-CG	Maldives National Defence Force, Coast Guard
MoED	Ministry of Economic Development
MPS	Maldives Police Services
NBS	National Bureau of Statistics
RFBs	Regional Fisheries Bodies
SDFC	SME Development Finance Corporation
SWIOFC	Southwest Indian Ocean Fisheries Commission
TAC	Total Allowable Catch
TAE	Total Allowable Exports
UCSB	University of California, Santa Barbara

Chapter 1

Preamble

1.1 Introduction and Title

This Plan is made pursuant to Article 18 of the Act No. 14/2019 (Fisheries Act of the Maldives) and provides for the management of the fishery stated in Section 17 (a) (8) of the Act. The plan will be the primary basis for guiding the authorities as well as stakeholders in the sustainable management of the marine aquarium fishery and trade in the Maldives. This Management Plan shall be cited as "Maldives Marine Aquarium Fishery Management Plan".

1.2 Overall Purpose

The overall purpose of the management plan is to:

(a) Manage all activities that may impact marine aquarium fishery resources and ensure long-term benefits to the people of Maldives through the responsible management of the fishery; and

(b) Guide the authorities and stakeholders in the sustainable development of the marine aquarium fishery and trade in the Maldives.

1.3 Scope and Application

This Plan applies to all marine species harvested for aquarium and ornamental purposes, included in Appendix 2.

This Plan also applies to all activities carried out in the Maldives that may impact marine aquarium fishery resources, including but not limited to fishing, fishing related activities, holding, packing, trading and exporting of marine aquarium species from the Maldives. The Plan also applies to all parties, vessels, packing and holding facilities or places engaged in or otherwise connected with any activity within the scope of this Plan.

1.4 Guiding Principles

1.4.1 Precautionary Approach: Timely and cost-effective measures shall be taken to safeguard ecosystems and prevent irreparable damage to them despite the lack of full scientific certainty.

1.4.2 Ecosystem-based management: The various and variety of interactions within an ecosystem, including anthropogenic elements, shall be recognised as opposed to accounting for matters, species, or ecosystem services in isolation.

1.4.3 Universal Responsibility: Local policies governing marine resource management shall be in harmony with global efforts to protect, conserve and manage biodiversity.

1.4.4 Sustainable Development: In developing the fishery, the needs of the present shall be met without compromising the ability of the future generations to benefit from the resource.

1.4.5 Equity: Resources shall be acknowledged as shared common good, and benefits obtained from the utilisation of resources shall be shared in a fair and just manner among all through the application of transparency, legitimacy, accountability and decentralisation.

1.4.6 Participatory Approach: All stakeholders, particularly those who are directly affected by a policy or a measure, shall be engaged in the decision-making process to ensure inclusivity and consensus-oriented outcomes.

1.5 Interpretation

Unless stated otherwise, words or expressions used in this Plan have been given the meanings specified in Annex 1: Glossary.

1.6 Entry into Force

This Plan shall come into force upon its publication in the Government Gazette.

Chapter 2

Habitat and Ecology

2.1 Species and Their Habitats

The marine aquarium fishery is highly species rich, involving the trade of a diverse range of marine organisms. In 2017 alone, approximately 250 species were exported as marine aquarium fish. However, the aquarium fishery caters to a highly selective customer base and this is reflected in the export data, where a small number of species account for a large proportion of exports. For instance, out of the approximately 250 species recorded to have been exported in 2017, 9 species accounted for 50% of the exports. Analysis of data available from reports published in the 1980s, 1995 and 2004, as well as proforma data from 2011 and 2014-2017 shows that with the exception of 2003, the top 20 species (Table 1) accounted for over 70% of the exports.

The top 20 species exported in the marine aquarium fishery are listed in Table 1 below.

Table 1: Top 20 most exported species by number in 2017 and their depths and habitats. Depth and habitat information, extracted from www.fishbase.org and www.iucn.org

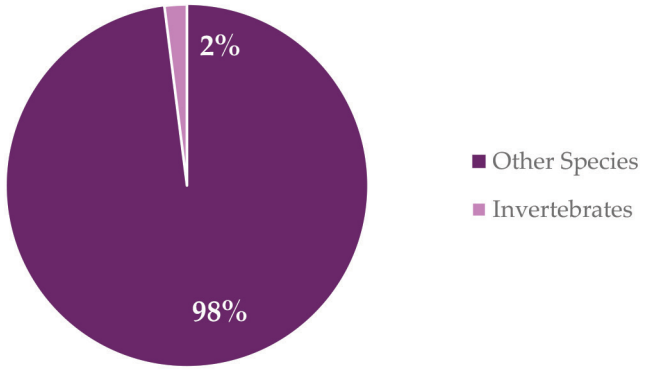
Scientific Name	Common Name	Local Name	Death	Habitat
Pseudanthias squamipinnis	Scalefin anthias	*Kashikeyo mas*	Lower depth limit (metres): 40 Upper depth limit (metres): 1	Adults are found above coral outcrops or patch reefs of clear lagoons, channels, or outer reef slopes
Pseudanthias evansi	Yellowback anthias	*Mathi dhon bureki*	Lower depth limit (metres): 40 Upper depth limit (metres): 4	Schooling species, along upper parts of drop-offs and in outer reef lagoons.
Macropharyngodon bipartitus	Divided wrasse	*Kurehi hikaa*	Lower depth limit (metres): 30 Upper depth limit (metres): 1	Inhabits lagoons and sand or rubble patches on seaward coral reefs
Pseudanthias parvirostris	Sunset anthias	-	Lower depth limit (metres): 70 Upper depth limit (metres): 17	Forms small groups and swims close to the substrate. Also occurs in aggregations above patch reefs on sand or rubble seaward slopes
Labroides dimidiatus	Blue streak cleaner wrasse	*Theyofulhi mas*	Lower depth limit (metres): 40 Upper depth limit (metres): 1	Inhabits coral rich areas of inner lagoons and sub-tidal reef flats to seaward reefs
Acanthurus leucosternon	Blue surgeonfish	*Noo kaalhu*	Lower depth limit (metres): 25	Inhabits shallow, clear coastal and island coral reefs.
Nemanthias carberryi	Carberryi anthias	-	Lower depth limit (metres): 30 Upper depth limit (metres): 4	Found in groups off outer reef slopes

Blenniella chrysospilos	Red-spotted blenny	-	Lower depth limit (metres): 6	Is reef-associated and inhabits clear coastal reef flats, often in exposed habitats. Common in outer intertidal reef flats and surge-swept seaward reefs, usually where algal growth is prolific.
Nemateleotris magnifica	Fire dartfish	*Dhidha funna*	Lower depth limit (metres): 61 Upper depth limit (metres): 6	Inhabits burrows on the upper portion of outer reef slopes
Valenciennea sexguttata	Chalk goby	-	Lower depth limit (metres): 25 Upper depth limit (metres): 3	Inhabits silty or sandy areas of lagoons and bays. Usually in pairs and lives in a burrow under rocks
Nemateleotris decora	Elegant dartfish	*Fari dhidha funna*	Lower depth limit (metres): 75 Upper depth limit (metres): 25	Occurs over hard, open bottoms at the bases of reefs, over sand and rubble patches, and on deep coastal to outer reef drops-offs that are subject to strong currents
Echinaster sepositus	Mediterranean red sea star	-	Lower depth limit (metres): 250	Found in tropical waters, in rocky substrata. Inhabits both sheltered and moderately exposed habitats.
Pseudanthias bimaculatus	Twospot Anthias	-	Lower depth limit (metres): 100 Upper depth limit (metres): 20	Inhabits deep coastal drop-offs.

Halichoeres leucoxanthus	Lemon meringue wrasse	*Dhon lunboa hikaa*	Lower depth limit (metres): 60 Upper depth limit (metres): 7	Found along the reef edge, in sand and rubble areas
Ecsenius midas	Midas blenny	-	Lower depth limit (metres): 40 Upper depth limit (metres): 2	Occurs in coral reefs with moderate currents, typically 3-2m above the benthos
Naso lituratus	Orange spine unicornfish	*Ran geri*	Lower depth limit (metres): 90	Benthopelagic, found in areas of coral, rock, or rubble of lagoon and seaward reefs.
Cirrhilabrus exquisitus	Exquisite wrasse	-	Lower depth limit (metres): 32 Upper depth limit (metres): 2	Occurs over rubble or low patch reefs in areas of current; also, on reef edges and around bomboras with rubble zones
Zebrasoma veliferum	Sailfin tang	-	Lower depth limit (metres): 45 Upper depth limit (metres): 1	Inhabits lagoons and seaward reefs; juveniles found shallow, sheltered rocks or corals
Cirrhilabrus rubrisquamis	Red scale wrasse	*Raiy hulhunbu hikaa*	Lower depth limit (metres):50 Upper depth limit (metres): 40	Marine species, associated with deep reefs, found over coral, rubble or sandy substrate
Pseudocheilinus hexataenia	Sixstripe wrasse	*Harongu hikaa*	Lower depth limit (metres): 35 Upper depth limit (metres): 2	Occurs in seaward reefs among coral branches. Also occurs in clear coastal waters, dense coral habitats on shallow reef crest or slopes to a depth of about 20 m.

2.2 Invertebrates in the MAF

The number of invertebrates harvested by the MAF is low compared to that of fish, with only approximately 2 % of the MAF exports by number from 2015-2017 being invertebrate species. These exports were recorded in the pro-forma sheets, as consisting solely of Echinaster sp., Fromia sp. and nudibranchs. However, in 2017, the Mediterranean red sea star, Echinaster sepositus, was one of the top 20 most commonly exported species in the entire trade.



- **Figure 1:** Percentage of invertebrates and fish by number in annual MAF exports from Maldives, from 2015-2017.

2.3 Ecology

A majority of the species listed in the MAF are associated with coral reefs and some are grazers and thus occupy important niches within the ecosystem. From the top 20 most exported species in 2017, 2 were noted to be potential keystone species (Table 2). Of these, the blue streak cleaner wrasse is currently being exported over the proposed Total Allowable Export (TAE) limits in the 2014 review[1] (Wood et al. 2014), while the orange spine unicornfish has had no proposed or prior TAE limit.

Taking due consideration of interspecific associations is crucial to managing a species rich fishery such as this, which largely exploits coral reefs and thus is inherently vulnerable to not only local anthropogenic and fishing pressures, but also the impacts of climate change and natural disturbances, as well. The blue streak cleaner wrasse, which was the second most exported species in 2011, is a prime example of an ecologically important species. An in-situ study

[1] The proposed quota was reviewed by MRC and a number of consultations were held with MAF exporters to finalise quota.

carried out in patch reefs where experimental reefs had blue streak cleaner wrasse removed and control reefs were left untouched, found that client fish on experimental reefs were smaller sized, and resident fish populations were 37% smaller in number and there was a 23% reduction in species richness, in comparison to the control patch reefs. Juvenile fish abundance was reduced by 65% on experimental reefs, pointing to reduced survivorship (Waldie et al. 2011). Together these results show a clear positive impact of blue streak cleaner wrasse on community composition and abundance.

Table 2: Two potential keystone species within the 20 most exported MAF species in 2017

Species	Justification	Estimated Total Export 2015	Previously Proposed TAE Limit
Blue surgeonfish	Impacts population abundance, species richness and juvenile survivorship of associated species (Waldie et al. 2011).	17,377	7,000
Orange spine unicornfish	Fulfils critical ecological functions in the top-down control of coral reef macro algae; particularly fleshy brown algae (i.e. Sargassum spp.) which can out-compete and smother corals (Rasher et al. 2013).	9,456	-

Additionally, it is important to note that , while not categorised as keystone, species like the blue surgeonfish are important herbivores, the removal of which can cause cascading changes in ecosystem biodiversity, juvenile recruitment and species composition (Lefcheck et al. 2019). In light of these considerations, it is critically important to account for interspecific relationships and ecological niche and connectivity, in the development of management measures for this fishery.

Chapter 3

Overview of the Fishery

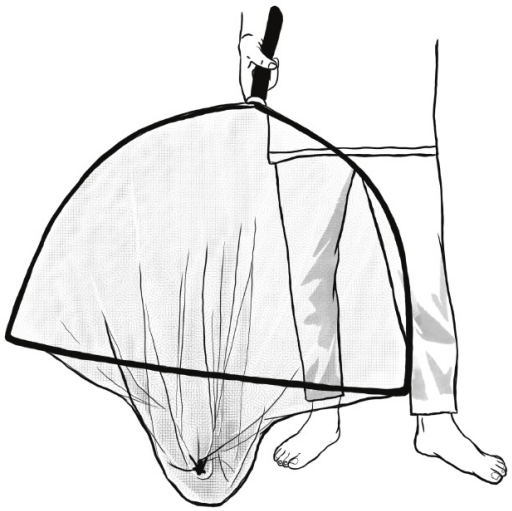
3.1 Inception and Development

The Maldivian Marine Aquarium Fishery (MAF) came into inception in the late 1970s, and is comparatively small scale in the context of the entire Maldivian fisheries sector, accounting for only 0.39% of the total marine export value from 2010-2019. However, it should be noted that undervaluing of MAF exports at the time of export is evident, and has also been previously reported (Saleem and Adam 2004). Consequently, the true economic contribution from the fishery is not understood. From its early stages till date, several reviews have been conducted on the fishery to ascertain its viability and sustainability in the long term. One such document was a reef resource-use review published in 1997, which commented on the general sustainability of the Maldivian MAF, especially in comparison to some other reef-based fisheries (Adam et al. 1997). Since then, the MAF has expanded rapidly and shown a notable increase in exports.

3.2 Collection Methods

Both SCUBA diving and skin diving are employed in the MAF. Free swimming species are collected using small and large hand-held nets that are used in combination and separately, depending on the species and aggregation numbers. Similarly, depending on various factors, the collectors work both in

pairs and separately. As the fishery is demand driven, the sites and locations for collection on any given day, are based on the orders received from the overseas clients. The methods employed in collecting the fish species that tend to hide within the reef structure is not known. However, previously, the use of moxy-nets to capture such species was common. Subsequently, their use was prohibited in 1997.



- **Figure 2:** Scoop net used in the marine aquarium fishery

Specimens caught in this manner are collected and brought up in plastic bags. Once on board the vessel, the fish are then transferred to a holding facility in containers. Specimens caught at greater depths are treated with a hypodermic needle, to release the air from the swim bladder and prevent it from rapturing during ascent to the surface

As the fishery is highly demand-driven, the fishing grounds and target species for any given fishing trip is dependent upon purchasing order lists received at that point in time.

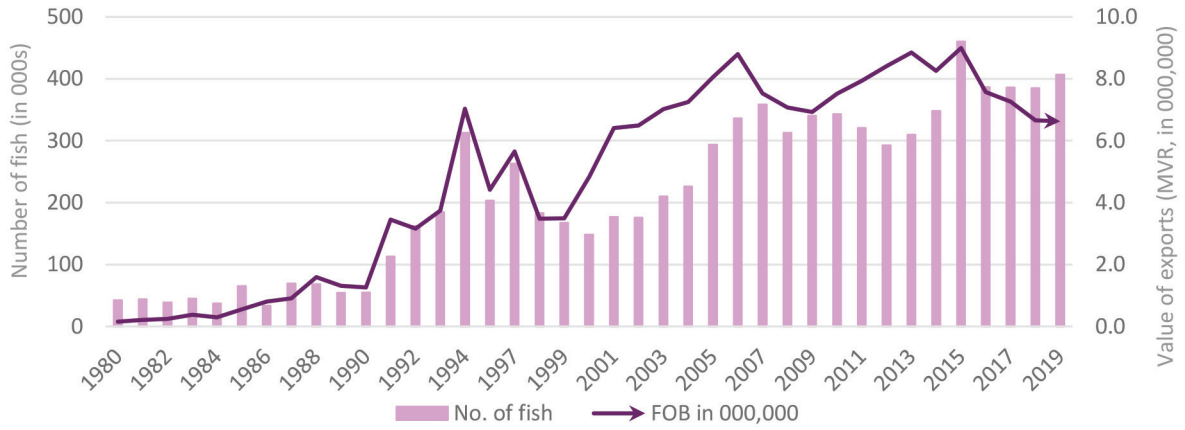
3.3 Export Trends

Overall export records for the marine aquarium fishery are available from 1980 onwards, indicating total exports per annum. However, country specific export records only became available from the mid-1990s onward. This data is officially maintained solely by the Maldives Customs Service, documenting quantities and values declared at the time of export. Furthermore, proforma data which is for the most part segregated by species and quantity is also maintained at the Ministry. This data is received by the Maldives Customs Service at the time of export and is shared with the Ministry digitally.

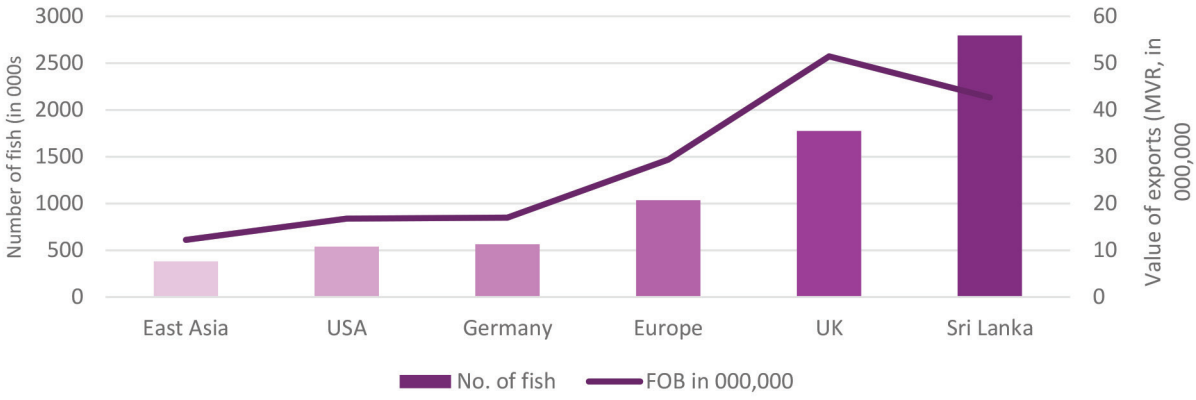
According to the data received from Maldives Customs Service, 21 exporters have exported marine aquarium fish over the past five years, of whom, 7 are regularly active.

While export data shows a general increasing trend until 2005, there was a slight dip in exports over the period 1998-2000. The jump in FOB from 2000 to 2001 and continued increase was due to increased exports to UK and Japan, as both destinations offer some of the highest prices per unit. From 2005-2014, exports were stable, at approximately 300,000-350,000 fish per annum. The average value of marine aquarium exports during this time was MVR 7.9 million per year. The year 2015 shows a considerable number of exports jumped to 460,000 and over 50% of these exports were sent to Sri Lanka.

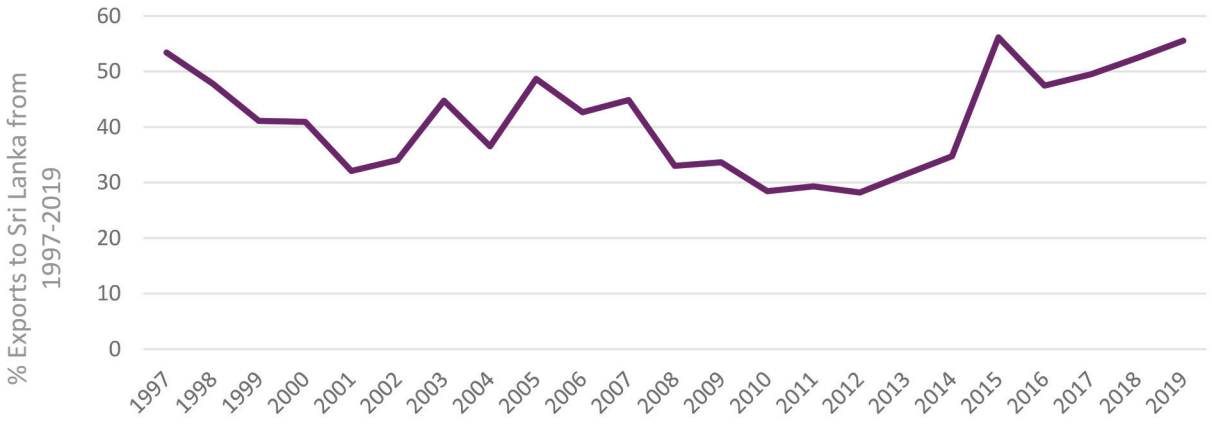
Sri Lanka received over 80% of Maldivian MAF exports in the early 1980s (Wood et al. 2014), but this percentage has decreased significantly in recent years. The average unit price per fish for exports to Sri Lanka is much lower than other destinations, mainly because almost all exports to Sri Lanka are re-exported to European and US markets, therefore increasing overheads before reaching the final market (Adam 1995). The expansion in to Western markets, with the development of airports and more efficient transport, meant that the unit price of fish increased by virtue of having direct access to other markets. However, data from 2015 onwards indicates a resurgence in exports to Sri Lanka.



- **Figure 3:** Total number of MAF exports and associated FOB from 1997-2015, where FOB refers to the 'Free on Board' value, which indicates the cost and risks involved with shipping and delivery of goods. Data retrieved from: Maldives Customs Service.



- **Figure 4:** Comparison between the average exports and FOB to major export destinations, from 1997-2019. Data retrieved from: Maldives Customs Service.



- **Figure 5:** Percentage exports to Sri Lanka from 1997-2019. Data retrieved from: Maldives Customs Service.

3.4 Demography and Socio-economic Status

While a large percentage of the work force, especially divers, was Sri Lankan at the beginning of the fishery, fish collection has since been restricted to Maldivian nationals (Wood et al. 2014) due to the re-enforcement of clause 15 of the Maldivian Fisheries Regulation in 1997.

Despite the clear expansion of the industry, surveys conducted by the Ministry in 2017 and 2018 showed that fewer than 100 people work in it, across 8 outer atolls and Malé atoll. The estimated monthly income for divers is USD 1000, a notable increase from the previously reported USD 325–650 (Wood et al. 2014).

3.5 Reef Area in Use

Most MAF operations were positioned around Kaafu atoll in the early 1980s because of the ease of access to the international airport. This is particularly important for the MAF because the fishery is solely export based. Operations expanded to include Baa Atoll by 2004 (Saleem and Adam 2004) and Gaafu Alifu and Gaafu Dhaalu atolls by 2008 (Saleem and Islam 2008). Resource use mapping carried out by the Darwin Reef Fish Project in 2012 reported that collection was also being carried out in Lhaviyani atoll, bringing the number of atolls in which the MAF operates up to five atolls, as of 2014 (Wood et al. 2014). However, communications with the MAF operators in 2016 indicated that collections were also happening in Laamu, Addu, Noonu, Raa, Haa Alifu and Haa Dhaalu atolls, although, the frequency of collection cannot be estimated at present.

Much research has been undertaken to determine the total area utilised in this fishery. The first assessment to determine the area of reef used and the potential yield of the species utilized in the Maldivian MAF showed that approximately 250 hectares of reef was in use at the inception of the fishery. The review in 2014 showed a nearly 20-fold increase, with approximately 5000 hectares of reef being utilised in the fishery. These estimates were based on a study in the early 2000s (Naseer and Hatcher 2004) which estimated the total coral cover across the Maldives. Table 2 below summarises the findings from research conducted to determine the total reef area in use for aquarium fish collection, at various points in time.

Table 3: Reef Area in Use in the Collection of Marine Aquarium Fishes

Researcher and Research Period	Estimated Total Reef Area in Use for Marine Aquarium Fish Collection	Estimated Average Percentage Used of Each Individual Reef
A. J. Edwards and A. D. Shepherd, 1992	250 Hectares	**11%**
M. S. Adam, 1995	850 Hectares	**15%**
L. Wood et al, 2014	4,972 Hectares	**13%**

Chapter 4

Previous Management Measures

Several of the species exploited under the MAF have TAE limits within the previous management regime, however not all of the top 20 most exported species in the latest reference year available (2017) were accounted for within this system. Fluctuations and turn-over in the top 20 most exported species every few years due to the export demand-driven nature of the fishery makes establishing a quota system difficult.

Up until 2012, the MMRI set quotas which were implemented by the Ministry of Economic Development. In 2012, the management of quotas was turned over to the Ministry. Over the years, important species were declared as export banned species under this fishery, including important bait species such as blue-green damselfish, as well as some angelfishes, butterflyfishes, pufferfishes and porcupinefishes, in addition to the bicolour parrotfish, longnose filefish, marble moray and the palette surgeonfish.

While no MAF fishers or fish collectors were licensed in the past, MAF holding facilities were licensed from 2010 onwards. In terms of data collection, the submission of proforma data sheets was enforced with each export consignment. While the system was more manageable in the beginning, as the number of exports and varieties increased, there was a significant time lag between Maldives

Customs Service receiving the data, and it being transferred to the Ministry. This made quota management and enforcement more difficult. The quotas underwent review in 2014 (Wood, et al., 2014) and amendments were proposed thorough stakeholder consultation workshops and site visits were carried out prior to their finalisation.

Furthermore, as a measure to reduce the environmental impact of fishing gears, a ban was placed on the use of moxy nets to harvest marine aquarium species.

Chapter 5

Purpose, Objectives and Strategies

This management plan comprises of objectives, strategies, and actions that would contribute towards achieving the overall purpose.

The four specific objectives are;

(1) Ensure that all activities associated with the harvest and trade of marine aquarium fishes are carried out through the application of principles of sustainability, ecosystem-based management and the Precautionary Approach;
(2) Prioritise evidence-based policymaking through the collection of biological, ecological, and socio-economic data on the marine aquarium fishery and associated resources;
(3) Implement Monitoring, Control and Surveillance (MCS) measures and strengthen data collection and data reporting mechanisms for the marine aquarium fishery and trade;
(4) Increase education and awareness on marine aquarium fishery and resources amongst stakeholders and the general public.

Strategies and actions developed to achieve these objectives are summarised in Table 1

Table 4: Breakdown of each objective, by strategies, actions, time frame and responsible parties.

Objective 1	Ensure that all activities associated with the harvest and trade of marine aquarium fishes are carried out through the application of principles of sustainability, ecosystem-based management and the Precautionary Approach.		
Strategy	**Action**	**Time frame**	**Responsible parties**
1.1 Adopt precautionary approach for the management of the fishery in the absence of reliable data or full scientific certainty	1.1.1 Strengthen and implement the existing Total Allowable Export (TAE) limits for the MAF.	Within one year of implementation of this Plan	o MoFMRA o MMRI o MoED o Maldives Customs Service
	1.1.2 Enact harvest and/or export bans for specific species, deemed to be overexploited or subjected to overfishing.	Within one year of implementation of this Plan	o MMRI o MoFMRA
	1.1.3 Coordinate with stakeholder agencies in designating and managing MPAs and ecologically significant areas for marine aquarium fish species.	Immediate	o MMRI o MoFMRA o ME o Local Councils
1.2 Promote the use of environmentally friendly gears and practices in the MAF	1.2.1 Implement and enforce the restriction on the use of fishing method or gear prohibited in the Fisheries Act (14/2019) and its pursuant regulations.	Immediate	o MoFMRA o MPS o MNDF-CG
	1.2.2 Implement and enforce the ban on harvesting MAF species using moxy nets.	Immediate	o MoFMRA o MPS o MNDF-CG
1.3 Maintain a leading role in regional and international fisheries management organisations such as RFMOs and Regional Fishery Bodies (RFBs) in management of the MAF and conservation of associated species	1.3.1 Actively participate in the scientific and management processes of SWIOFC and other relevant regional and international bodies.	Immediate	o MMRI o MoFMRA

Objective 2	Prioritise evidence-based policymaking through the collection of biological, ecological, and socio-economic data on the marine aquarium fishery and associated resources		
Strategy	**Action**	**Time frame**	**Responsible parties**
2.1 Improve data collection and management on biological, ecological, and socio-economic aspects of the MAF to support evidence-based policymaking	2.1.1 Gather geographical information on fishing grounds using fishery data and field surveys in order to study the spatio-temporal exploitation patterns in the marine aquarium fishery.	Immediate	o MoFMRA o MMRI o MoED o Maldives Customs Service
	2.1.2 Conduct series of surveys to identify and understand the socio-economic aspects of marine aquarium fishery in the Maldives	Immediate	o MoFMRA
	2.1.3 Establish, maintain and update a fishers' registry, *Masveringe Dhaftharu*, to understand the level of engagement in MAF fishery and trade	Within one year of implementation of this Plan	o MoFMRA o Local Councils
Objective 3	**Implement Monitoring, Control and Surveillance (MCS) measures and strengthen data collection and data reporting mechanisms for the marine aquarium fishery and trade**		
Strategy	**Action**	**Time frame**	**Responsible parties**
3.1 Establish an effectively controlled and monitored trade flow	3.1.1 Establish a harvest licensing mechanism to effectively monitor the fishery.	Within one year of implementation of this Plan	o MMRI o MoFMRA
	3.1.2 Strengthen the implementation of the current licensing mechanism to ensure all MAF holding facilities are accounted for within the system.	Immediate	o MoFMRA o MFDA
	3.1.3 Establish registration arrangements in Fisheries Information System (FIS), *Keyolhu*, for those engaged in the MAF and trade.	Immediate	o MoFMRA o Maldives Customs Service

3.2 Establish an efficient documentation scheme for MAF and trade	3.2.1 Strengthen the existing mechanism to collect catch and effort data from harvesters through fishery logbooks, and conduct awareness programmes to ensure that data submitted by fishers are complete and accurate.	Within one year of implementation of this Plan	o MoFMRA
	3.2.2 Require licensed MAF holding facilities to maintain and submit purchase records to the Ministry	Immediate	o MoFMRA o Local Councils
	3.2.3 Require exporters to submit purchase reports to the Ministry and expand the catch documentation scheme to cover MAF exports and to ensure all MAF export consignments are accompanied by a catch certificate.	Within one year of implementation of this Plan	o MoFMRA
	3.2.4 Further develop the FIS to accommodate the entry of current proforma data or equivalent by the exporters for timely tracking of quota performance.	Within one year of implementation of this Plan	o MoFMRA
3.3 Establish an effective monitoring and enforcement system to ensure effective compliance	3.3.1 Work with other government agencies (e.g. Customs, MFDA, MIRA) to monitor exports	Immediate	o MoFMRA o MFDA o MIRA o Maldives Customs Service
	3.3.2 Conduct trainings in species identification for Maldives Customs Service officials and other inspectors	Immediate	o MoFMRA o MMRI o Maldives Customs Service
	3.3.3 Conduct spot checks at MAF holding facilities, ports and the airports to ensure compliance with relevant requirements and regulations.	Immediate	o MoFMRA o Maldives Customs Service o MMRI

Objective 4	Increase education and awareness on marine aquarium fishery and resources amongst stakeholders and the general public		
Strategy	**Action**	**Time frame**	**Responsible parties**
4.1 Promote awareness and understanding of the MAF and its contribution to the Maldives economy	4.1.1 Based on data availability, compile and disseminate information on: • status of the fishery; • trade and exports; and • revenue to Maldives	Short-term (1 – 3 years)	o MoFMRA o MMRI o MoED o MIRA o Maldives Customs Service o NBS
	4.1.2 Educate fishers, traders, processors, exporters and enforcement officers about new and existing regulations via workshops, trainings and awareness campaigns	Immediate	o Ministry o MMRI
4.2 Promote appreciation for the marine environment and resources through public engagement in citizen science programmes	4.2.1 Implement a citizen science monitoring programme to collect and record photographic and observational data on reef resources	Medium-term (3 – 5 years)	o MMRI

Chapter 6

Management Measures Under This Plan

The marine aquarium fishery is one that is wholly dependent on the delicate coral reef ecosystems. The resources utilised in this fishery are prone to adverse impacts from various factors such as anthropogenic activities, natural disasters and climate change. Therefore, in light of the expansion of the fishery over the course of the years, as well as giving due consideration to the fishers and all other stakeholders engaged in this fishery, it is critical that timely management measures and best practices are introduced to ensure that this important resource is sustainably managed to the benefit of the stakeholders and future generations. The measures that will be implemented to achieve the objectives and strategies of this Plan are summarised below.

6.1 Establishment of an Advisory Committee

An advisory committee will be established to advise the Ministry on management of marine aquarium fishery and trade. The committee will also give recommendations to the Ministry on research and sustainable development of this fishery. The meetings of the committee will be convened at least once per year.

The committee will comprise of the following members:

(a) Chairperson (a representative of the Fisheries Department of the Ministry);
(b) A representative from the MMRI;
(c) 3 representatives of marine aquarium fishers and the export industry;
(d) A representative from the Ministry of Environment;
(e) A representative from the Ministry of Economic Development;
(f) A representative from the Maldives Customs Service; and
(g) A representative from a relevant locally registered NGO.

A public announcement will be made by the Ministry, calling for Expression of Interest for the following Committee positions:

- Representatives of marine aquarium fishers and the export industry; and
- Representative from a relevant locally registered NGO.

The responsibilities of the Committee will include:

(a) Reviewing technical and other reports pertaining to the marine aquarium fishery;
(b) Advising the Ministry on implementation of relevant regional and international management measures on a national scale;
(c) Monitoring the implementation of this Plan and providing advice to the Ministry on an annual basis;
(d) Advising the Ministry on management measures in response to the outcomes and recommendations from the technical reports and stakeholder workshops and consultations; and
(e) Advising the Ministry on the implementation, monitoring and review of this Plan.

6.2 Licensing

One of the overarching aims of establishing a licensing mechanism is to identify parties that are engaged in the fishery and those who are economically dependent on the fishery resources. Such a mechanism also supports the collection and management of fisheries data. Furthermore, the licensing mechanism plays a crucial role in providing the Ministry with information that contributes towards the development of the fisheries sector and the extension of essential services to fishers.

In addition, a licensing mechanism also allows for the formal recognition of stakeholders engaged in the fishery and trade, which in turn facilitates the Ministry to safeguard their rights and ensure their social and economic security. Maintaining records of the fishing fleet and crew members, as well as information on fish processing facilities, through a licensing system assures the international community that the Maldivian fisheries are effectively and responsibly managed. Such records also serve as an important basis for planning and implementing fishery development projects.

In light of these considerations, the following parties operating within the marine aquarium fishery and trade will be required to acquire a license:

(a) All commercial fishing vessels
(b) All MAF holding and packing facilities

The general process of application for and issuance of licenses, their renewal and revocation as well as conditions of the licenses will be set forth in the relevant regulations. The Ministry will establish, maintain and update a database of licensed parties.

6.3 Data Collection and Management

Collection and management of comprehensive catch and effort data and maintenance of fisheries statistics is an important measure that contributes towards assessing changes in the abundance of fish stocks in response to fishing. It also plays a critical role in ensuring that stocks are fished at sustainable levels and that future generations continue to benefit from these resources. The fundamental tool used for this purpose is the fishery logbooks,

in which catch composition, fuel usage, fishing grounds and other trip details, for each fishing trip, are recorded and submitted by the licensed vessels. Other vital information collected on the fisheries sector include details on processing and trade of fish and fishery products.

In consideration of the aforementioned factors, an integrated data collection system will be established and used to collect the following information:

- Logbook / fishery data from licensed fishing vessels;
- Purchase reports from licensed MAF holding and packing facilities; and
- Purchase reports from parties exporting MAF species.

6.4 Total Allowable Export (TAE) Limit

From the early days of the marine aquarium fishery in the Maldives to the present, this fishery has seen swift expansion, with a considerable increase in the number of exports. Therefore, with due consideration to the rapid environmental shifts seen in recent times and the future of this fishery and its dependants, Total Allowable Export (TAE) limits will be established for 368 marine aquarium fish species. This will also include several species not accounted for within the previous quota system. Quotas for several species are based on the proposed limits in the 2014 review of the fishery. A number of factors have been considered in the formulation of these TAE limits, including the following:

- Vulnerability;
- Resilience;
- Abundance and population trends;
- Distribution;
- Ecological significance of species;
- Price;
- Demand and ease of capture;
- Suitability for captivity; and
- The importance of the species in the context of other fisheries practiced in the Maldives.

6.5 Catch Certification

Catch certification is an essential instrument that helps prevent, deter and eliminate Illegal, Unreported and Unregulated (IUU) fishing. Through such a scheme, the catch is certified to have been made in accordance with applicable laws, regulations and international conservation and management measures, fully assuring consumers that the fish traded in the Maldives are sourced from a sustainably and responsibly managed fishery.

The catch certification scheme established by the Ministry will be expanded to include marine aquarium fishery exports, and all exporters will be required to submit an approved catch certificate with all consignments of marine aquarium fish species. Details of the fishing vessel, date of catch as well as information on the holding facility will also be collected through the scheme. This will help to track the flow of the product through the supply chain, ensuring product traceability at all stages.

6.6 Precautionary Measures

The Precautionary Approach promotes the application of timely and cost-effective measures to safeguard ecosystems and prevent irreparable damage to them, despite the lack of full scientific certainty. This approach falls within the purview of international best practices for sustainable management of natural resources (UNCED, 1982). In this regard, additional measures that are not stated in this Plan may be taken to protect and manage marine aquarium fishery resources. These measures may include but are not limited to the following:

(a) Declaring the closure of a specific area and prohibiting the extraction of MAF resources from such no-take zones;
(b) Prohibiting the harvesting, trade or export of a specific species harvested in the MAF;
(c) Introduce additional Total Allowable Export (TAE) limits and Total Allowable Catch (TAC) limits and revise existing limits; and
(d) Impose other restrictions on activities that may affect MAF resources.

Chapter 7

Implementation of this Plan

The Ministry is responsible for the implementation of each objective in this management plan, by strategies and actions, as outlined and in coordination with the relevant agencies. The Ministry shall also formulate a regulation, under the Fisheries Act of the Maldives, to implement and enforce all marine aquarium fishery management measures stated in this Plan. The Maldives Marine Research Institute shall formulate and implement a plan of action to undertake all research activities that the institute is responsible for under this Plan.

Chapter 8

Reviewing the Management Plan

This Plan will be reviewed and revised every 6 (six) years. The Ministry will ensure the engagement of marine aquarium fish harvesters, processors, exporters, civil society and other stakeholders in the review process. Where there is an immediate need to revise any part(s) or measures of this Plan, the Ministry shall carry out such revisions in consultation with the Committee.

References

Adam, M., R. Anderson, and H. Shakeel. 1997. Commercial exploitation of reef resources: examples of sustainable and non-sustainable utilisation from the Maldives. Malé.

Adam, M. S. 1995. Review of the aquarium fish trade of the Maldives with proposals for monitoring and regulation. Malé.

Edwards, A. J. and Shepherd, A. D. 1992,. Environmental Implications of Aquarium-fish Collection in the Maldives, with Proposals for Regulation. Environmental Conservation 19(1):61–72. Cambridge University Press.

Lefcheck, J. S., A. A. Innes-Gold, S. J. Brandl, R. S. Steneck, R. E. Torres, and D. B. Rasher. 2019. Tropical fish diversity enhances coral reef functioning across multiple scales. Science Advances 5(3). American Association for the Advancement of Science.

Naseer, A., and B. G. Hatcher. 2004. Assessing the integrated growth response of coral reefs to monsoon forcing using morphometric analysis of reefs in the Maldives. Coral Reefs 23:161–168.
Rasher, D. B., A. S. Hoey, and M. E. Hay. 2013. Consumer diversity interacts with prey defenses to drive ecosystem function. Ecology 94(6):1347–1358. NIH Public Access.

Saleem, M., and F. Islam. 2008. Management of the aquarium fishery in the Republic of the Maldives. Page Proceedings of the 11th International Coral Reef Symposium, Session 22: 1038–1042. Ft. Lauderdale.

Saleem, M. R., and M. S. Adam. 2004. Review of the Aquarium Fish Industry in the Maldives – 2003. Malé.

Waldie, P. A., S. P. Blomberg, K. L. Cheney, A. W. Goldizen, and A. S. Grutter. 2011. Long-Term Effects of the Cleaner Fish Labroides dimidiatus on Coral Reef Fish Communities. PLoS ONE 6(6):e21201. Public Library of Science.

Wood, E., M. Ushan, S. Sattar, A. Najeeb, and F. Islam. 2014. Maldives Marine Aquarium Fishery Review. Male'.

Annex 1: Glossary

(a) Commercial Fishing	Fishing or Harvesting for the purpose of obtaining a financial benefit
(b) Enforcement officer	Any officer designated pursuant to Section 57 of the Act No. 14/2019 (Fisheries Act of the Maldives) to enforce regulations made under the Act.
(c) Fisheries Ranger	Persons who are appointed for and by the Ministry under Section 58 of the Act No. 14/2019 (Fisheries Act of the Maldives).
(d) Fishing / Harvesting	(1) Searching for the purpose of catching, taking, killing and harvesting of fish; (2) Attempting to search for, catch, take, kill or harvest fish; (3) Engaging in any other activity that results in the searching, catching, taking, killing or harvesting of fish; (4) Placing or searching or retaking of any fish aggregating device or equipment including "radio beacons"; (5) Undertaking any operation at sea or on an island in preparation for any activity mentioned in subsections (1), (2), (3) or (4).
(e) Fishing vessels	Any type of vessel, ship or any other thing which is used for fishing, which has been prepared for fishing, or which is usually used for fishing or related activities.
(f) Logbook	Any instruments provided to record data on fishing trips, including catch and effort data, submitted electronically or via any other medium determined by the Ministry
(g) Management plans	Plans made with regard to fisheries planning, management and development pursuant to Chapter Three of the Act No. 14/2019 (Fisheries Act of the Maldives).

(h) Captain / Master	Person holding the most responsible position at any given time on-board a fishing vessel
(i) Minister	The minister responsible for fisheries, including aquaculture.
(j) Ministry	The ministry responsible for fisheries, including aquaculture.
(k) Precautionary measures	In the absence of complete information based on scientific research or where a matter has not been proved, measures adopted to manage the natural resources in a sustainable manner considering the possibility of an adverse outcome if such measures are not taken.
(l) Processing	Activities undertaken to package, pack or bring any change to fish in order to preserve fish for a long period.
(m) Processing Facilities	Lands, buildings, or such other places on or in which: (1) fish or aquaculture products are cleaned, packaged, dried, salted, chilled, frozen or otherwise processed for sale in and outside the Maldives; or (2) fish or aquaculture products are stored for the purposes of packaging, canning, drying, cleaning, salting, chilling, freezing or otherwise for processing for sale in and outside the Maldives.
(n) Protected species	All species, including those with size restrictions, protected from targeting, extraction, retaining, processing or trading under any regulations or management plans made pursuant to Act No.: 2019/14 (Fisheries Act of Maldives)
(o) Fisheries Information System - *Keyolhu*	A web-enabled fishery information system designed to upload record catch data and issue permits and licenses to fishery and fishery related activities.

Annex 2: List of TAE for Each Species

Species	Quota
Amphiprion chagosensis	0
Apolemichthys armitagei	0
Arothron stellatus	0
Canthigaster coronata	0
Canthigaster tyleri	0
Centropyge eibli	0
Cetoscarus bicolor	0
Chaetodon andamanensis	0
Chaetodon bennetti	0
Chaetodon meyeri	0
Chaetodon triangulum	0
Chaetodon trifascialis	0
Chaetodon trifasciatus	0
Diodon liturosus	0
Exallias brevis	0
Oxymonacanthus longirostris	0
Paracanthurus hepatus	0
Pomacanthus annularis	0
Pomacanthus semicirculatus	0
Rhinomuraena quaesita	0
Acanthurus tristis	50
Bodianus anthioides	50
Bodianus bimaculatus	50
Calloplesiops altivelis	50
Centropyge acanthops	50
Centropyge bispinosa	50

Species	Quota
Centropyge flavipectoralis	50
Chaetodon decussatus	50
Chaetodon vagabundus	50
Cheilinus trilobatus	50
Cirrhilabrus rubrisquamis	50
Cirrhilabrus rubriventralis	50
Cirrhitichthys aprinus	50
Cirrihitus pinnulatus	50
Cirripectes quagga	50
Cirripectes stigmaticus	50
Coris aygula	50
Dendrochirus brachypterus	50
Dendrochirus zebra	50
Hologymnosus doliatus	50
Labrichthys unilineatus	50
Oxycheinus bimaculatus	50
Plesiops coeruleolineatus	50
Pseudanthias hypselosoma	50
Pseudochelinus octotaenia	50
Ptereleotris hanae	50
Rhinecanthus cinereus	50
Sebastapistes cyanostigma	50
Stethojulis bandanensis	50
Taenianotus triacanthus	50
Tomiyamichthys latruncularius	50
Valenciennea helsdingenii	50

Species	Quota
Valenciennea puellaris	50
Anampses lineatus	100
Apolemichthys xanthurus	100
Coris formosa	100
Heniochus singularis	100
Plectorhinchus chaetodonoides	100
Plectorhinchus vittatus	100
Pterois volitans	100
Acanthurus maculiceps	200
Anampses caeruleopunctatus	200
Chaetodon interruptus	200
Inistius pavo	200
Naso unicornis	200
Platax orbicularis	200
Pomacanthus xanthometopon	200
Pseudobalistes fuscus	200
Coris cuvieri	250
Acanthurus guttatus	300
Chaetodon lineolatus	300
Paracheilinus mccoskeri	300
Pterois radiata	300
Chaetodon mitratus	500
Gobiodon citrinus	500
Halichoeres vrolikii	500
Oxycirrhites typus	500
Paracirrhites arcatus	500

Species	Quota
Pseudodax moluccanus	500
Stonogobiops dracula	500
Pterois antennata	600
Balistoides conspicillum	800
Ostracion meleagris	800
Abudefduf bicolor	1000
Acanthurus mata	1000
Acanthurus nigricauda	1000
Acanthurus nigrofuscus	1000
Acanthurus pyroferus	1000
Acanthurus strigosus	1000
Acanthurus tennenti	1000
Acanthurus triostegus	1000
Aluterus scriptus	1000
Amblyeleotris callopareia	1000
Amblyeleotris steinitzi	1000
Amblyeleotris sungami	1000
Amblyeleotris wheeleri	1000
Amblygobius phalaena	1000
Amblygobius semicinctus	1000
Antennarius biocellatus	1000
Antennarius hispidus	1000
Antennarius maculatus	1000
Antennarius pauciradiatus	1000
Antennarius commerson	1000
Antennarius pictus	1000

Species	Quota
Antennatus nummifer	1000
Antennatus coccineus	1000
Apogon apogonides	1000
Apogon luxuria	1000
Apolemichthys trimaculatus	1000
Arothron mappa	1000
Arothron nigropunctatus	1000
Bodianus bilunulatus	1000
Bodianus diana	1000
Bodianus opercularis	1000
Bothus ocellatus	1000
Caesio teres	1000
Callionymus cooperi	1000
Callionymus delicatulus	1000
Callionymus gardineri	1000
Callionymus persicus	1000
Callionymus tenuis	1000
Cantherhines pullus	1000
Centropyge bispinosus	1000
Chaetodon baronessa	1000
Chaetodon citrinellus	1000
Chaetodon collare	1000
Chaetodon ephippium	1000
Chaetodon guttatissimus	1000
Chaetodon kleinii	1000
Chaetodon octofaciatus	1000

Species	Quota
Chaetodon oxycephalus	1000
Chaetodon unimaculatus	1000
Cheillinus chlorourus	1000
Cheilodipterus isostigma	1000
Cirrhitichthys bleekeri	1000
Comanthina nobilis	1000
Coris frerei	1000
Corythoichthys haematopterus	1000
Corythoichthys intestinalis	1000
Cryptocentrus cinctus	1000
Cryptocentrus cinctus	1000
Cryptocentrus cyanotaenia	1000
Cryptocentrus fasciatus	1000
Cryptocentrus fasciatus	1000
Cryptocentrus lutheri	1000
Ctenochaetus binotatus	1000
Ctenochaetus striatus	1000
Dascyllus aruanus	1000
Dascyllus carneus	1000
Dascyllus trimaculatus	1000
Doryrhamphus bicarinatus	1000
Doryrhamphus excisus excisus	1000
Dunckerocampus multiannulatus	1000
Echinaster sepositus	1000
.Echinaster sp	1000
Ecsenius midas	1000

Species	Quota
Ecsenius minutus	1000
Epibulus insidiator	1000
Forcipiger flavissimus	1000
Forcipiger longirostris	1000
Formia nodosa	1000
Fromia indica	1000
Fromia monilis	1000
Fromia nodosa	1000
.Fromia sp	1000
Fusigobius duospilus	1000
Fusigobius humeralis	1000
Fusigobius inframaculatus	1000
Fusigobius longispinus	1000
Fusigobius neophytus	1000
Fusigobius pallidus	1000
Genicanthus caudovittatus	1000
Gnathanodon speciosus	1000
Gomophia	1000
Gomphosus caeruleus	1000
Gomphosus varius	1000
Halichoeres hortulanus	1000
Halichoeres lutescens	1000
Halichoeres margaritaceus	1000
Halichoeres marginatus	1000
Halichoeres melanurus	1000
Halichoeres salmofasciatus	1000

Species	Quota
Halichoeres trispilus	1000
Halichores scapularis	1000
Helcogramma maldivensis	1000
Hemigymnus fasciatus	1000
Hemigymnus fasciatus	1000
Hemitaurichthys zoster	1000
Heniochus accuminatus	1000
Heniochus acuminatus	1000
Heniochus chrysostomus	1000
Heniochus monoceros	1000
Heniochus permutatus	1000
Heniochus pleurotaenia	1000
Histrio histrio	1000
Hologymnosus annaulatus	1000
Hologymnosus longipes	1000
Hoplolatilus chlupatyi	1000
Iniistius dea	1000
Koumansetta hectori	1000
Labroides bicolor	1000
Larabicus quadrilineatus	1000
Lethrinus crocineus	1000
Liopropoma africanum	1000
Liopropoma fasciatum	1000
Liopropoma latifasciatum	1000
Lissiosquillina maculata	1000
Lutjanus kasmira	1000

Species	Quota
Luzonichthys whitleyi	1000
Lysmata amboinensis	1000
Macolor niger	1000
Macrodontogobius wilburi	1000
Macropharyngodon cyanoguttatus	1000
Macropharyngodon ornatus	1000
Malacanthus brevirostris	1000
Meiacanthus smithi	1000
Melichthys indicus	1000
Mulloidichthys flavolineatus	1000
Mulloidichthys vanicolensis	1000
Myripristis adusta	1000
Myripristis berndti	1000
Myripristis botche	1000
Myripristis hexagona	1000
Myripristis jacobus	1000
Myripristis kuntee	1000
Myripristis murdjan	1000
Myripristis pralinia	1000
Myripristis violacea	1000
Myripristis vittata	1000
Naso brevirostris	1000
Naso vlamingii	1000
Neoniphon opercularis	1000
Neopomacentrus cyanomos	1000
Nudibranch	1000

Species	Quota
Odonus niger	1000
Opistognathus lonchurus	1000
Ostracion cubicus	1000
Oxycomanthus bennetti	1000
Parachelinus carpenteri	1000
Paracirrhites forsteri	1000
Paragobiodon modestus	1000
Paraluterus prionurus	1000
Parapercis hexophtalma	1000
Parapercis punctulata	1000
Parapriacanthus ransonneti	1000
Parupeneus barberinus	1000
Parupeneus cyclostomus	1000
Parupeneus indicus	1000
Parupeneus macronemus	1000
Parupeneus pleurostigma	1000
Parupeneus rubescens	1000
Parupeneus trifasciatus	1000
Periclimenes	1000
Platycephalus speculator	1000
Plectorhinchus albovittatus	1000
Plectorhinchus gibbosus	1000
Plectorhinchus lineatus	1000
Plectorhinchus nigrus	1000
Plectorhinchus picus	1000
Pomacanthus imperator	1000

Species	Quota
Pomacentrus caeruleus	1000
Pomacentrus coelestis	1000
Pomacentrus indicus	1000
Pseudanthias charleneae	1000
Pseudanthias cooperi	1000
Pseudanthias dispar	1000
Pseudanthias fasciatus	1000
Pseudanthias taira	1000
Pseudanthias truncatus	1000
Pseudanthias bicolor	1000
Pseudocheilinus evanidus	1000
Pseudochromis coccinicauda	1000
Pseudojulis melanotus	1000
Pseudorhombus jenynsii	1000
Ptereleotris evides	1000
Ptereleotris grammica	1000
Ptereleotris heteroptera	1000
Ptereleotris microlepis	1000
Ptereleotris zebra	1000
Pterocaesio pisang	1000
Pterocaesio tile	1000
Pterois miles	1000
Rathbunella hypoplecta	1000
Rhinecanthus aculeatus	1000
Rhinecanthus lunula	1000
Rhinecanthus rectangulus	1000

Species	Quota
Sargocentron caudimaculatum	1000
Sargocentron cornutum	1000
Sargocentron diadema	1000
Sargocentron macrosquamis	1000
Sargocentron melanospilos	1000
Sargocentron punctatissimum	1000
Sargocentron spiniferum	1000
Sargocentron tiere	1000
Sargocentron tiereoides	1000
Sargocentron violaceum	1000
Sargocentron microstoma	1000
Shrimp	1000
Soleichthys heterorhinos	1000
Solenostomus cyanopterus	1000
Stegastes nigricans	1000
Stethojulis albovittata	1000
Sunagocia otaitensis	1000
Terelabrus dewapyle	1000
Terelabrus flavocephalus	1000
Terelabrus rubrovittatus	1000
Terelebrus rubrovittatus	1000
Thalassoma amblycephalum	1000
Thalassoma hardwicke	1000
Thalassoma lunare	1000
Upeneus heemstra	1000
Upeneus taeniopterus	1000

Species	Quota
Upeneus vittatus	1000
Valenciennea strigata	1000
Wetmorella nigropinnata	1000
Xanthichthys auromarginatus	1000
Zebrasoma veliferum	1000
Bodianus axillaris	1500
Chaetodon lunula	1500
Chaetodon melannotus	1500
Synchiropus stellatus	1500
Zanclus cornutus	1500
Centropyge multispinis	2000
Chaetodon madagaskariensis	2000
Macropharyngodon bipartitus	2000
Novaculichthys taeniourus	2000
Pseudanthias ignitus	2000
Amblyeleotris aurora	2500
Salarias fasciatus	2500
Anampses meleagrides	3000
Chaetodon falcula	3000
Ecsenius lineatus	3000
Thalassoma quinquevittatum	3000
Chaetodon xanthocephalus	4000
Ecsenius bicolor	4000
Halichoeres leucoxanthus	4000
Acanthurus lineatus	5000

Species	Quota
Amphiprion clarkii	5000
Amphiprion nigripes	5000
Chaetodon auriga	5000
Cirrhilabrus exquisitus	5000
Ctenochaetus strigosus	5000
Halichoeres cosmetus	5000
Halichoeres scapularis	5000
Naso lituratus	5000
Nemateleotris decora	5000
Pseudanthias bimaculatus	5000
Pygoplites diacanthus	5000
Zebrasoma scopas	5000
Naso elegans	5000
Labroides dimidiatus	7000
Zebrasoma desjardinii	7000
Pseudanthias pulcherrimus	8000
Blenniella chrysospilos	10000
Nemateleotris magnifica	10000
Pseudanthias parvirostris	10000
Valenciennea sexguttata	10000
Nemanthias carberryi	15000
Pseudanthias evansi	15000
Pseudocheilinus hexataenia	15000
Acanthurus leucosternon	20000
Pseudanthias squamipinnis	80000

Ministry of Fisheries, Marine Resources & Agriculture

Malé, Maldives