



**FISHERIES MANAGEMENT PLANS,
POLICIES AND LEGAL FRAMEWORK IN
THE REPUBLIC OF MAURITIUS
A REVIEW
VIKASH MUNDODHE**

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Fisheries Management Plans, Policies and Legal Framework in the Republic of Mauritius

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1.0 BACKGROUND

The Republic of Mauritius is an oceanic state with the largest Exclusive Economic Zone (EEZ) of all countries in the Southern and East Africa with around 2.3 million km² (FAO, 2019; Department of Continental Shelf 2021). The islands under the Republic of Mauritius are located in the south-western part of the Indian Ocean, which, consists of the main island Mauritius (1,865 km²) and several outer islands namely: Rodrigues (108 km²), St. Brandon or Cargados Carajos Archipelago (1.3 km²), Agaléga (~21 km²), Tromelin (~0.8 km²), and the Chagos Archipelagos (~56 km²) which includes the Diego Garcia atoll. With a total land area of 2,040 km², total length of coastline of 496 km and 16, 840 km² of territorial sea,

The Republic of Mauritius has an Exclusive Economic Zone of 2.3M km² and 400,000 Km² of shared Continental Shelf in the Saya de Malha (Joint Management Area with Seychelles), (Department of Continental Shelf 2021). Despite being one of the largest oceanic states of the SWIO region, the Republic of Mauritius is still importing 50% fish and fisheries products over decreasing local fish production. Traditional maritime industries such as coastal tourism, fishing, seafood processing and seaport operations account for roughly 10.3% of Mauritian GDP. By 2030, the Mauritian government targets at doubling the GDP contribution of the ocean to the Mauritius Economy (EDB, 2021). The fisheries are an important sector to Mauritius, from an economic, nutritional and social stand points. There are two forms of fish production in the Republic of Mauritius, namely marine capture and commercial aquaculture. Marine capture consists of a combination of industrial, semi-industrial, sports, amateur and artisanal fishery.

The artisanal fishery is the main supplier of fresh fish to the local market. It also provides employment opportunities in the coastal regions, and protein diets to several thousand households, and thereby contributes significantly to poverty alleviation and food security. According to the World Bank, the total fisheries production in Mauritius for the year 2018 was 30,384 tons. With a 9.4% rise in catch production, the total fish production in 2019 for Mauritius went up to 31,663 tons (Statistics Mauritius, 2020) with total export of fish and fish products mounting to Rs. 13 billion, contributing to about 19 % of our national exports as compared to Rs 8.1 billion in 2010. In addition, the fishery sector is also an important protein source providing national food security as well as supporting poverty alleviation by favorably contributing in the livelihoods of the coastal communities such as engagement in fishing and tourist activities while ensuring supply of fresh fish on the local market. The industry also provides employment to about 29,172 people (FAO, 2018). Among the fisheries resources exploited include island-based artisanal fisheries, offshore demersal fishery of the Mascarene Plateau and the Chagos Archipelago and tuna fishery in the Western Indian Ocean (FAO, 2018).

Overall, fisheries are an important sector from an economic, nutritional and social stand points. The **artisanal fishery** of Mauritius is a multi-gear and multi species fishery. Fishing activities take place inside the lagoon and off-lagoon in the vicinity of the outer reef. About 1,934 registered artisanal fishermen and 2,108 registered boats (2018) were actively involved in the artisanal fishery. Around 850 tons of fresh fish were landed along the coast of Mauritius at 61 landing stations in 2019. The Octopus fishery represents about 14% of the total artisanal catch. Octopus is a high valued commodity which fetch high price for the coastal communities. At present there are 21 FADs in operation around the island, in waters from 400 to 3000 m deep and at 1.5 to 12 nm from the coast. Catch rates (15-25 kg per day) are better than lagoon fishing and annual landings amount to about 300 tons.

The **fishing banks namely**, St. Brandon, Nazareth, Saya de Malha and Chagos are found around 250 to 1200 nautical miles to the north of Mauritius are exploited by Mauritian fishing vessels producing frozen fish. The Banks fishery is the traditional supplier of chilled and frozen fish on the local market. The banks are exploited by refrigerated mother vessels which carry around 20 small dories. Hand line is used as the preferred fishing method with Lethrinids as dominant catch from the Saya de Malha and Nazareth. The industrial fish catch of the bank fishery has produced 205 tons in 2020 as compared to 705 tons in 2019, similar decreasing trend in semi-industrial catch was noted from 1301 tons in 2019 to 1143 tons in 2020. The economic performance of the Banks fleets is mixed and constrained by obsolete technology, aging vessels, limited domestic markets for high value species and export difficulties. Management plans have an essentially biological focus and inadequate data on the economics of the fishery to enable an economic approach with a view to capture of economic rents from the fishery.

In 2007, the potential for **aquaculture** fish production was estimated to be 29,000 tons in the medium term and about 39,000 tons in the long term for Mauritius and yet only one mariculture farm is active on Mauritius Island, with cage culture being utilized to produce red drum at the Ferme Marine de Mahebourg. The farm produced both for domestic consumption and export, employs 65 people and, in 2008, produced an estimated 750 tons (ASCLME, 2012). A total production of 1250 tonnes have been reached in 2017, with two major species; the red drum and the European seabass the recent production is closing to 5000 tons (2020).

In general, the fisheries sector in Mauritius has seen a drop in fisheries production especially in the Offshore Demersal Fishery while the coastal fishery has been reinforced by the FAD fishery whereby artisanal fishermen are encouraged lagoon fishermen to move to off lagoon to increase both their catch and income. In general, the fisheries sector in Mauritius has suffered from the implementation challenges and increased focus in marine conservation without optimizing the full potential of the existing fisheries resources.

2.0 FISHERIES MANAGEMENT PLANS

2.1 FISHERIES MANAGEMENT PLAN for the shallow water demersal fish species of the Saya de Malha and Nazareth Banks (2012)

Fishing is one of the main activities taking place in the Mauritian EEZ and resources that are being exploited are both pelagic and demersal fish species and the most important supply of fish is demersal fish caught from the Saya de Malha and Nazareth banks located in the north of Mauritius. In 1992, a licensing system was introduced for the banks fishery and to further consolidate that measure; in 1994 a catch quota system was implemented based on historical catch. The vessels engaged in the inter-island trade in the early period (1930s) of the bank fishery caught fish mainly for salting, which was brought to Mauritius (Ardill 1969, Samboo 1987). Systematic exploitation of the banks fish stocks began in 1949, after a survey of the fishery resources of the Mauritius-Seychelles ridge (Wheeler and Ommanney 1953). Frozen fish were produced in the 1960s. The fishery grew up in fleet size during the 1970s (Samboo 1987). As at 2019, the Offshore Demersal Fishery comprised three (3) active fishing vessels of more than 40 m and 37 active fishing boats (< 24 m).

Fishing activities in the banks are managed by a licensing system. Data such as the number of fish and length range are collected. Catch and effort data are used in the estimate of the Maximum Sustainable Yield (MSY). The estimates obtained from the Saya de Malha Bank (2,432T) and Nazareth Bank (1,457T) are biomass values which can support sustainable exploitation, that is, the amount of fish that can be taken from the stock without disrupting the normal population dynamics. Therefore, around 2 432T of fish can be fished annually from Saya de Malha and 1,457T can be fished from the Nazareth Bank (Degambur and Solmudsson 2005). In 2003, a total catch of 2,822 tonnes were obtained for both Saya de Malha and Nazareth Bank (Graaf, 2016). Conversely, the catch has from both Saya de Malha and Nazareth have constantly been decreasing over the years with 737T and 741T in 2010 while 458T and 301T in 2018 respectively. Such a decrease in catch show a fisheries exploitation rate of below 50% of the estimated MSY for both Saya de Malha and Nazareth implying loss of fisheries resources.

Nevertheless, in 2012, the Ministry has come up with a **Fisheries Management Plan for the shallow water demersal fish species of the Saya de Malha and Nazareth Banks (2012)** which had as objectives:

- to ensure that fishery resources harvested by the banks operators are exploited within biologically acceptable levels as well as social and economic objectives.
- to provide a foundation for management of the fishery to continue moving towards a more integrated management framework of shared responsibilities between the Ministry of Fisheries and other stakeholders of the sector
- achieve increased domestic fish production on a sustainable and renewable basis to the level of self- sufficiency;
- Increase contribution of the fishery sector to the national economy;
- Ensure employment opportunities to fishers;
- Reduce reliance on the import of frozen fish and fish products; and
- Encourage entrepreneurs for value-addition of fish and fish products

While the recommendations were:

- Fisheries Management Consultative Committee (BFMCC) be transformed into the Banks Fisheries Management Advisory Committee (BFMAC) to be supported by a Banks Fisheries Scientific Committee (BFSAC)
- An annual review of the Management Plan is the responsibility of the Ministry of Fisheries but it must be passed through the Banks Fisheries Management Advisory Committee and other stakeholders for their consideration and endorsement

2.1.1 IMPLEMENTATION OF THE MANAGEMENT PLAN (2012):

The management has been partly implemented with limited fisheries development as mainly demonstrated by the REDUCED EFFORTS in Bank fisheries mainly due to disadvantageous long distance fishing grounds (from 300 to 2000 km) without any major incentives to the operators or marketability. Nevertheless, in view to further develop the fisheries sector, the Government has contributed about Rs. 34 million and is injecting some Rs. 58 million in promoting sustainable development and management of the fisheries through the adoption of an ecosystem approach, and the promotion of off-lagoon and semi-industrial fishing. Furthermore, direct contribution to the fishermen community for the financial year 2021/22 amounts to the tune of Rs. 22 million (Budgetary measures 2021/22). In addition to the license and quota system with regards to fisheries dependent control, no undersized fishing of, crab/lobster in berried state, any marine turtle, marine turtle egg or any marine mammal are allowed in the Mauritian waters as per the Section 12 of the Fisheries and Marine Resources Act 2007. There is restriction on the use of nets (mesh size, limitation on the number of licenses issued, type /dimension of nets), gear prohibitions, use of light/torch for fishing among others which are detailed in the table below.

2.1.2 CHALLENGES

The Bank fisheries with its limited and outdated fishing fleet along with scarcity in skilled fishermen and technologically poor fishing techniques, is unable to cope with the economic challenges such as productivity and profitability due to poor marketability (Beejadhur et al. 2017)

2.1.3 OPPORTUNITIES

The fishery has potential untapped resources which may be utilized through:

- (i) increased efforts (more fishing vessels), more fish in the market
- (ii) engaging Private Sector in valorisation of the fish/fisheries product and ensure marketability at the local, regional and international level which will potentially lead to
- (iii) improved living standards to the fishermen community through job creation in fisheries and fisheries associated activities.

2.2 POTENTIAL FOR SUSTAINABLE AQUACULTURE DEVELOPMENT IN MAURITIUS (2007)

The Republic of Mauritius, despite being relatively politically stable and having recommendations both from national and regional reports on Aquaculture Development especially on ocean-based aquaculture, so far Mauritius has not been able to materialize any off-shore aquaculture farm yet. The potentials for open sea aquaculture exist given the vast territorial water which can be made available upon ensuring the right ecosystem, the right species (high growth rate and high market value), appropriate technology and the required financial input.

In the same line, in 2007, following the commissioning of the Aquaculture Master Plan by the Board of Investment, the Board of Investment and the Ministry of Agro-Industry and Fisheries (Fisheries Division) came up with a '**Potential for Sustainable Aquaculture Development in Mauritius (2007)**' so as to better develop the aquaculture industry and substantially increase fish production and promote export and economic growth. In this context, offshore aquaculture was privileged though used in the world since only a decade or so, is possible in Mauritius in the medium and long term.

2.2.1 MARINE AQUACULTURE PROJECTS TO POTENTIAL INVESTORS (2007)

In 2007 the Ministry of Agro-Industry and Fisheries along with the Board of Investment came up with a report on Potential for Sustainable Aquaculture

Development in Mauritius with the aim of promoting the island as a base for Marine Aquaculture Projects to potential investors (2007).

The objectives were to:

- Identify potential sites, commercial species and technologies for aquaculture
- Provide facilities to investors in aquaculture projects
- Address existing constraints which could be physical/technical or legal
- Clear the grounds for further marine investment

2.2.2 RECOMMENDATIONS OF THE MARINE AQUACULTURE PROJECTS TO POTENTIAL INVESTORS (2007) WERE:

- to develop the aquaculture industry and substantially increase fish production and promote export and economic growth exists and it is believed that the technology undertaken for cage culture in the open seas overseas may be adapted to suit local conditions
- Besides, the recently introduced cage culture in the lagoon areas has indicated that there is scope for increase in fish production. However, for successful cage culture of fish, a certain number of conditions should be satisfied such as sufficient water depths, adequate water current and water quality, protection from surf, legal framework, sufficient investment, suitable species and technology amongst others.

2.2.3 THE REPORT (2007) PROPOSED AND PROJECTED:

- 21 sites identified for aquaculture development.
- Six offshore sites which included Le Morne (12.5 km²), Tamarin (4.2 km²), Bambous (4.2 km²), Trou aux Biches (4.2 km²), Cap Malheureux (6 km²), and Coin de Mire were proposed.
- Projection made in 2007 for lagoon was 5 to 10,000 t/year, while for was 15,000 t/yr.
- The Aquaculture Development Plan (2007) also recommended the different potential species that was already introduced based on their fast growth and high value in the world market. It was also projected that the total production would be to tune of about 29,000 tons per year upon successful implementation of the recommendations.



In May 2015, under the Fisheries and Marine Resources (Amendment of Schedule) Regulation 2015, Government Notice, N0. 106 of 2015, thirty-one (31) inshore and off lagoon sites were prescribed as Fish Farming Zones around the Island

*Fisheries and Marine Resources (Amendment of Schedule) Regulation 2015,
Government Notice, N0. 106 of 2015*

SCHEDULE

[Regulation 3]

FIRST SCHEDULE

[Section 8A]

FISH FARMING ZONES

In a radius of up to 300 metres around the following GPS points –

Zone	Area of Sea	Reference Coordinates GPS	
		Latitude (South)	Longitude (East)
1.	Ouest Ile Flammand	20°19' 15.16"	57°48' 40.75"
2.	Sud Pointe de Grande Passe	20°19' 28.21"	57°47' 28.03"
3.	Sud Diamant Reef	20°19' 48.76"	57°48' 08.15"
4.	Roche Plat	20°20' 12.61,	57°47' 25.79"
5.	Roche Zamari	20°20' 48.72"	57°47' 03.22"
6.	Est Pointe Bambou 1	20°21' 08.82"	57°47' 00.04"
7.	Est Pointe Bambou 2	20°21' 28.47"	57 °46' 55.59"
8.	Nord Est de Jonchée Bar	20°21' 50.85"	57°46' 51.23"
9.	Ouest Îlot Marianne	20°22' 35.55"	57 °44' 49.29"
10.	Baie Fer à Cheval	20°23' 15.04"	57 °45' 50.63"
11.	Sud Banc Fer à Cheval Spit	20°23' 22.45"	57 °45' 30.24"
12.	Sud Ouest Olive Bank	20°23' 27.95"	57 °44' 23.64"
13.	Pont Molino	20°23' 17.85"	57 °43' 03.55"
14.	Nord Est Annanas Bank	20°23' 36.59"	57 °45' 54.79"
15.	Le Morne 1	20°25' 00.32"	57°18' 22.65"
16.	Le Morne 2	20°23' 10.22"	57°19' 14.67"
17.	Bambous 1	20°15' 43.59"	57°21' 40.71"
18.	Bambous 2	20°14' 36.14"	57°22' 05.26"
19.	Trou aux Biches	20°01' 43.99"	57°31' 21.59"
20.	Anse La Raie	19°57' 56.12"	57°38' 31.18"
21.	Petit Sable	20°19' .812"	57°46' .411"
22.	Grand Gaube 1	19°59' .457"	57°39' .592"
23.	Grand Gaube 2	19°59' .487"	57°40' .012"
24.	Poudre d'Or 1	20°03' .170"	57°41' .492"
25.	Poudre d'Or 2	20°03' .107"	57°41' .498"
26.	Grande Rivère Sud Est 1	20°18' .161"	57°47' .060"
27.	Grande Rivere Sud Est 2	20°18' .230"	57°47' .098"
28.	Quatre Soeurs 1	20°18' .273"	57°47' .083"
29.	Quatre Soeurs 2	20°18' .396"	57 °47' .086"
30.	Bambous Virieux 1	20°20' .525"	57°46' .181"
31.	Bambous Virieux 2	20°20' .518"	57°46' .181"

2.3 Management of Octopus Fishery in Mauritius and Rodrigues

Octopus fisheries represent an important resource for coastal communities. It is an important economic activity whereby it contributes to economic gains of fishers and ensures food security. Octopus fishery represents about 7% of artisanal annual catch in Mauritius. It is a highly prized commodity and its preservation and sustainable exploitation is of utmost importance. The species of octopus commonly fished in Mauritius are mainly *Octopus Cyanea* and *Octopus vulgaris*. *Octopus cyanea* is native to Mauritius and is the most common species of octopus fished in the Indian Ocean waters.

The main aim of the closed season for octopus' fishery is to provide mature female octopi, the opportunities to spawn and to replenish the stock, as a result avoiding any over-exploitation or depletion of the stock which was the case in the years 1990 to 2015 from about 200 tons to below 50 tons in 2015. The closed season therefore protect the female octopuses during the migration phase (i.e. during the winter months in Mauritius). As such, following the encouraging results obtained from the octopus' closure in Rodrigues, and the Government came up with Fisheries and Marine Resources (Fishing of Octopus) Regulations of 2016. However, in light of the economic, social and ecological benefits, **in July 2020**, the Ministry came up with a second octopus' closure which starts from 15 January to 15 March in a year to further enhance the octopus' stocks by allowing juvenile octopus to grow in size and bring a better yield by fishers in catch in terms of weight of octopus.

The *Fisheries and Marine Resources (Fishing of Octopus) (Amendment) Regulations 2020* came into force on 01 July 2020, which makes provision for two closed seasons for the octopus' fishery, starting from 15 January to 15 March and then from 15 August to 15 October, every year. The Regulation stipulates that:

- (1) No person shall fish –
 - (a) any undersized octopus*;
 - (b) any octopus from 15 January to 15 March and then from 15 August to 15 October in a year.
- (2) Any person who contravenes the Regulations shall commit an offence and shall, on conviction, be liable to a fine not exceeding Rs 50,000.

* "undersized octopus" means any octopus which is less than 7 centimetres in mantle size.

Overall, the seasonal Octopus Fishery is a crucial resource management strategy under a Regulatory framework for the betterment of the livelihood of fishermen and the community at large while conserving the stock. the Octopus Fishery Closed season was implemented for two-months, starting from 15 August to 15 October. The closure thus allowed female octopi to lay eggs at the peak season, hence,

increasing the opportunity for recruitment, allowing maturation of adult octopi, which resulted in better post-closure catch from 2 to 4kg (before closure) up to 16kg post-closure daily catch in 2019.

2.4 Management of Sea cucumber

The commercial exploitation of sea cucumbers started on a trial basis in late 2005 with the issuing of collection and export permits to two locally based fishing companies with a validity of six months. The fishery developed into a commercial sea cucumber fishery in 2006, with the issuing of further permits to other companies. (Conand, 2008). After a trial period of exploitation in late 2005 and following stock assessments conducted in Mauritius in February 2007, effort controls were given to five commercial companies starting in March 2007. The estimated total allowable catch (TAC) of 550 tonnes was divided equitably between five companies during a six-month period, and was accompanied by the fisheries regulations of 2008. Two regulations (minimum size limits and a three-month closed season) were promulgated under the Fisheries and Marine Resources (Fishing of Sea Cucumbers) Regulations of 2008 and 2009.

Mauritius was the first country in the Western Indian Ocean to introduce and enforce a moratorium on sea cucumber fishing in 2009. An initial restriction (moratorium) on the exploitation of sea cucumbers in the Mauritian waters, including the islands of Mauritius, Rodrigues, Agalega and St Brandon with a two-year duration was established in October 2009. Following the promulgation of the Fisheries and Marine Resources (Fishing of Sea Cucumbers) Regulations 2012 on 23 February 2012, a second moratorium period was introduced on 01 March 2012 to 29 February 2016. The Fisheries and Marine Resources (Fishing of Sea Cucumbers) (Amendment) Regulations 2020 stipulates that *there is a complete ban on the fishing of sea cucumber in the Mauritian waters until December 2023.*

2.5 Marine Turtles Conservation and Management Plan

Mauritius is a signatory state since 2002 to the Indian Ocean–South-East Asian (IOSEA) Marine Turtle Memorandum of Understanding. Under this non-binding MoU, Mauritius has set up a Marine Turtle Collaborative Network which have resulted in:

- i) Awareness campaign by the NGOs and the Ministry whereby book on marine turtles are provided to schools and special training sessions on marine turtles are delivered to University of Mauritius students on marine turtle treatment, rehabilitation and conservation.

- ii) Surveys on turtle nesting sites around Mauritius including Flat Island are conducted during the nesting seasons from October to February. In January 2019, survey was conducted on Flat Island where 6 turtle's tracks were observed but no nest has been observed.
- iii) Finalization of the Marine Turtle Encounter Response Plan (MTERP) will depend on the finalized Action Plan on stranded marine mammals.
- iv) During the last Collaborative Network Meeting, this Ministry proposed to convert the Marine Turtle Collaborative Network to a national network to give it a national recognition.
- v) The finalization of the MTERP and the Action Plan on Stranded mammals will be put on hold until the national network has been set up.
- vi) A inter-ministerial meeting was convened in February to finalise the action plan on the disposal of marine turtle carcasses.
- vii) Treatment and rehabilitation of injured marine turtles are still ongoing while disposal of dead marine turtles/mammals are done according to established protocol.
- viii) Marine Turtle Rehabilitation Centre Project

The project was discussed at the National Environment Fund roundtable in March 2019 and donor's organizations expressed their interest in funding the project.

2.6 Marine Spatial Planning

Mauritius is engaged in the Marine Spatial Planning (MSP) process, a strategy whose aim is to organize the various use of maritime zones and their resources. The Department for Continental Shelf, Maritime Zones Administration and Exploration of the Prime Minister's Office (CSMZAE) is spearheading the efforts to come up with an elaborate Marine Spatial Planning process through an ecosystem-based and participatory approach. The implementation process will not only address sustainable development of marine resources but also ensure stakeholder participation and precise geographical boundary definition. It is projected that the MSP strategy will not only strengthen, diversify and sustain Mauritian economic sectors but also help Mauritius meet its SDG14 objectives. The approach taken is to avoid or minimise conflicting usage of the marine space, while engaging all stakeholders in the sustainable development of resources. CSMZAE has been focusing on the scientific, socio-economic and environmental issues through the establishment of dedicated working groups. These were set up under an MSP Coordinating Committee consisting of all concerned stakeholders. The immediate and major MSP strategies are centered on three drivers: New Economic Activities,

Conservation and Preservation of the Marine Environment and the Mauritius Ocean Observatory E-platform.

2.7 Community Based Coral Culture in the Republic of Mauritius

In view to better protect and conserve the reefs, the Government came up with initiative of "Promoting coral culture as an alternative livelihood for fisherman and coastal communities for conservation of marine biodiversity". The project which is funded by the Ministry of Finance and Economic Development was implemented jointly by the MOI and the Albion Fisheries Research Centre (AFRC) (under the aegis of Ministry of Ocean Economy, Marine Resources, Fisheries, and Shipping), at different locations around the island. Overall, the aim of the project was to train and build capacity of coastal communities (including fishers) in coral culture and reef rehabilitation techniques hence providing additional skills to the communities.

3.0 Fisheries Sustainability, Marine Biodiversity and Environment Protection

In response to intensification of the climatic variability and on-going human activities, the Government has taken and is implementing several management measures gearing towards the protection and conservation of the marine ecosystems and promoting ecosystem approach to fisheries in line with the SDG 14.1. Most of the anthropogenic-induced impacts including assessment of proposed coastal development projects are addressed at the national level through the:

3.1 Demarcation of Marine Protected Areas (MPAs) comprising Fishing Reserves, Marine Parks and Marine Reserves.

Mauritius has 8 proclaimed MPAs that include 6 Fishing Reserves and 2 Marine Parks and the Marine Protected Areas Regulations are prescribed in the Fisheries and Marine Resources Act 2007. The 6 Fishing Reserves include Poste Lafayette Fishing Reserve (280 ha), Poudre D'Or Fishing Reserve (2542 ha), Trou d'Eau Douce Fishing Reserve (574 ha), Port Louis Fishing Reserve (331 ha), Grand Port Mahebourg Fishing Reserve (1828 ha) and Rivière Noire Fishing Reserve (797ha) and the 2 Marine Parks include the Balaclava (485ha) and Blue Bay (353ha) Marine Parks. The

Blue Bay Marine Park of an area of 353 ha (3.53 km²) was proclaimed in 1997 as National Parks under section 11 (1) of the Wildlife and National Parks Act 1993. It was declared Marine Protected Areas (MPA) and designated as Marine Parks in June 2000 under the Fisheries and Marine Resources Act 1998, in 2008, the Blue Bay Marine Park acquired a new status of a Ramsar Site (marine wetland of international importance). Since July 2016, the Blue Bay Marine Park Visitors Centre is fully operational and actively contributes to the Sensitisation/ Public Awareness Programme on the importance and conservation of the marine ecosystem. The Blue Bay Marine Park was also listed as a Wetland of international importance under the Ramsar Convention on 31 January 2008.

Similarly, for Rodrigues, 5 Fisheries Reserved Areas, 4 Marine Reserves (Rivière Banane, Anse aux Anglais, Grand Bassin, Passe Demie), and a multiple-use Marine Protected Area in the south-east of Rodrigues (SEMPA) have been gazetted in 2007 and 2009 respectively.

3.2 Fisheries Policies

- Closed season for net fishing with progressive decrease of seine net fishing through a buy-back programme for fishing with nets since 1996.
- Gradual reduction of coastal/lagoonal fishery by encouraging artisanal fishermen for off-lagoon fishing around Fish Aggregating Device (FAD) through training and enhancing good practices, while minimizing pressure on the lagoon with increased fishing efficiency and better revenue.
- Mandatory Environment Impact Assessment (EIA) for all new coastal development projects as per the Environment Protection Act (2002) for all scheduled coastal projects for protection of the coastal and maritime zones.
- Banning of sand mining/coral sand extraction from the lagoon since October 2001 (to reduce coastal erosion)
- Regulation (2006) on the Prohibition Removal of Coral and sea shell from Maritime zone of Mauritius.

Inter-Ministerial consultation to assess coastal and or marine based proposed project to regulate and control activities for sustainable utilization of marine resources.

4.0 LEGAL FRAMEWORK

4.1 FMRA (2007) and associated Regulations

The Republic of Mauritius has always advocated on several management measures under the Fisheries and marine Resources Act (2007) strengthened by several regulations gearing towards the fisheries sustainability along with the protection and conservation of the marine ecosystems. Also several national policies including proclamation and management of Marine Protected Areas, promoting fishing around off-lagoon Fish Aggregating Devices, closed seasons for net and octopus fishing, ban on sea cucumber fishing until 2023, also add up to the reinforcement of resources management strategy. Furthermore, prohibition on sand mining, coral removal and trade, interdicting Jet Ski activities in the waters of Mauritius have proved also to be instrumental policies for effective management of coral reefs.

Fisheries and Marine Resources Act 2007 (FMRA 2007) and Associated Regulations	Sections or Regulations	Clause
Fisheries and Marine Resources (Fishing of Octopus) (Amendment) Regulations 2020.	GN No. 138 of 2020	"closed season" means the period starting on 15 January and ending on 15 March, and the period starting on 15 August and ending on 15 October, in a year;
Fisheries and Marine Resources (Fishing of Sea Cucumbers) (Amendment) Regulations 2020.	GN No. 43 of 2020	i) No fishing of undersized sea cucumber (less than 15 cm in length); ii) No fishing of sea cucumber at sea from 1 March 2020 to 31 December 2023.
Fisheries and Marine Resources Act 2007, Act No. 27 (CLOSED SEASON for Net Fishing)	14	Closed periods: i) Large net/pocket net/gill net - 1 October in a year till last day of February in following year; Canard net - 1 May to 31 July in a year and 1 October in a year to last day of February of following year; ii) large net/canard net not allowed between 1800 hours and 0600 hours and gill net not allowed between 0600 hours and 1800 hours; iii) No fishing of oysters neither possession of fresh oysters from 1 October in a year to the last day of March of the following year.
Fisheries and Marine Resources (Prohibition of the Use of Hooks of Small Size) Regulations 2011.	GN No. 128 of 2011	No hook of small size of less than 5mm can be used

Fisheries and Marine Resources (undersized Fish) Regulations 2006.	GN No. 54 of 2006	15 genus/species listed with minimum size allowed to be caught
Fisheries and Marine Resources Act 2007, Act No. 27	12	Prohibited fishing methods and gears: Prohibited gears - gunny bag, canvas/cloth, creeper, leaf, herb; prohibited fishing method: line/poisonous substance, explosive, drift net, speargun
Fisheries and Marine Resources Act 2007, Act No. 27	13	Underwater fishing prohibited
Fisheries and Marine Resources Act 2007, Act No. 27	16	Protection of fish: No fishing allowed of undersized fish, crab/lobster in berried state, any marine turtle, marine turtle egg or any marine mammal.
Fisheries and Marine Resources Act 2007, Act No. 27	18	No person shall fish with the aid of any artificial light, except with written authorisation of the Permanent Secretary
Fisheries and Marine Resources Act 2007, Act No. 27	28 - Gear Licences	1) No person shall. Without a gear licence issued by the Permanent Secretary, use or have in his possession, a bait gear, canard net,, gill net, large net, basket trap, shrimp net or pocket net.
Fisheries and Marine Resources Act 2007, Act No. 27	30 - Limitation on number of gear licences	The Permanent Secretary shall not at any time issue licences for more than: <ul style="list-style-type: none"> a. 10 large nets, 10 pocket nets, 10 canard nets, 5 gill nets and 100 shrimp nets for fishing in the lagoon of the island of Mauritius; b. 8 large nets, 8 pocket nets, 8 canard nets and 15 shrimp nets for fishing in the lagoon of the island of Rodrigues; and c. 2 large nets for fishing in the lagoon of the island of Mauritius.
Fisheries and Marine Resources Act 2007, Act No. 27		Mesh size of nets (large nets, canard nets, drift nets, pocket nets) should not be less than 9 cm when stretched diagonally

5.0 RECOMMENDATIONS

5.1 FISHERIES PRODUCTION

The fish production for exports mainly concerns the tuna and tuna derived products along with recent increase in aquaculture products from the Ferme Marine de Mahebourg. The economic performance of the fish and fish products have shown relative decrease in the past three to four years as shown in the below graph implying that there has been considerable decrease with no improvement in fisheries production.

Despite having the Fisheries Management Plan for the shallow water demersal fish species of the Saya de Malha and Nazareth Banks (2012), there have been very little success in the implementation of the recommendations as well as there has been inadequate effect in optimisation of the fisheries resources. In general, the fisheries sector needs modernization both technologically and scientifically.

However, the opportunity to better harness the existing untapped fisheries resources can be actualized provided that there is a proper investment mechanism in the fisheries sector. The mechanism may be in the form of a **National Plan of Action of Fisheries Development** or **Fisheries Investment Plan** under the aegis of the Ministry of Fisheries including the Ministry of Finance, the Economic Development Board and the Private Sector with clear Terms of Reference so as to ensure that proper investment and accountability. Investing in the Fisheries sector requires both financial and technical assistance which can be achieved by engaging the Private Sector. Such engagement will lead to the valorisation of the fish/fisheries product and ensure marketability at the local, regional and international level which will ensure improved living standards of the fishermen community and the community in general through job creation in fisheries, fisheries associated activities as well as in the industry.

Therefore, the **recommendations** based on opportunities are:

5.2 BANK FISHERIES

(i) **Investing in the Bank Fisheries to increase fleet capacity and acquire new fishing vessels** and as well as improved fishing techniques so as to increase efforts thereby production through providing incentives to the fishermen for proper engagement and commitment.

(ii) **Industrialisation of the Bank fisheries** implies the increase catch from distant fishing grounds. A well-equipped Mothership can be engaged whereby the mothership stays at the sea for a longer period continue the fishing activities with dories and the fishermen. Subsequently, small carrier vessels continuously transport and provide fish to the local and regional markets.

- (iii) **Diversifying the targeted species by exploring for lobster, octopus, crabs and squids** in the shallow banks
- (iv) **Explore** small pelagic fishes such as round scads and horse mackerel and also the deep-water snapper and groupers
- (v) **Create local and regional market** for extra fish and value-added fisheries product through COMESA and SADEC

5.3 PELAGIC FISHERIES

Geographically connecting the African continent to Asia and Europe and based on its quality product from Princes Tuna Mauritius and Mer des Mascareignes, the two state of arts tuna processing plants, Mauritius is strategically well positioned to explore further the regional and international markets.

In this context and considering the economic downfall from the tourist industry during the COVID-19 pandemic, **it is strongly recommended** that there should be:

- (i) **an increase national fleet** to sustain the local demand in tuna; as well as
- (ii) **to consider increase in tuna production** for the emergence of a third state of art tuna processing.

5.4 AQUACULTURE

By virtue of its vast EEZ, the Republic of Mauritius is lagging behind in the field of marine aquaculture. The **Marine Aquaculture Projects to potential investors (2007)** had equipped Mauritius with all the required ecosystems for the development of industrial aquaculture almost 15 years later, only one marine aquaculture farm but not a single ocean-based aquaculture farm has yet been set up. Mauritius has all the required legal frameworks, policies and strategies along with fully studied designated sites for attracting foreign investors, but so far, no consent has been among ocean users. However, there is always a rise in conflicts among the various users of the marine space, *viz.* coastal development, tourist industry, fishermen, aquaculture and other coastal users due to severe coastal squeeze. Consequently, it is essential to promote diversification of ocean-based activities in the entire EEZ, thus promote oceanic aquaculture. Furthermore, with the development and promulgation, the Marine Spatial Plan will provide a clear demarcation of conservation zones, areas for tourist activities promoting sites for economic activities such as ocean-based aquaculture and blue energy.

It is therefore recommended that the Aquaculture Plan (2007) be reviewed in terms investment and technology followed by research and development with the restructuring of the Aquaculture Department under **an Aquaculture Research and Development Plan** which shall include the following:

- (i) **New modern hatchery and nursery** and appropriate ponds to cater for brood stock storage, genetic manipulation for induced/artificial breeding and spawning.
- (ii) **Qualified and dedicated staffs** to be engaged and staffs at all level to be provided training and upgraded accordingly.
- (iii) **Seek consultancy services for the research and development** of artificial breeding, spawning, and managing of larvae and juveniles of the potential local species such as sea cucumber, sea urchin, mud-crabs, giant clam, oysters and marine shrimps.
- (iv) Being an island state, Mauritius has a wide array of marine organisms which are potential for aquaculture ornamentals, in this context, **through R&D, the aquaculture ornamentals** could also be explored, candidates may be crabs, shrimps, anemones, nudibranchs, sea horse among others.
- (v) The growing aquaculture worldwide including the African region, there is a high demand in the use of fish meal and fish oil in industrially compounded aquafeeds. Mauritius with its **high fisheries by-products, seaweeds and by- by-catch from the demersal offshore and pelagic fisheries**, the aquaculture department may also capitalize in the development of fish meal and explore the avenues of prospecting on seaweed for fish meal enrichment.

5.5 FISHERIES INFORMATION SYSTEM

Due to inadequate fisheries information along with the **lack of a proper Fisheries Information System**, none of the fishery's managements, policies and strategies have been implemented to their full potentials. Major barriers have been data collection, compilation, analysis and reporting. Overall, there have been insufficient guidance through science driven information to the policy makers for the development of the fisheries sector.

In this line, it is important to **highlight** that the guiding tools in the like of scientific reports with recommendations and predictions has been inexistent, despite decades of data collection and compilation. There has been inadequate appraisal, upgrading and upscaling of the different fisheries, conversely to the Annual Reports published by the Ministry which were only reflecting on the activities on a yearly basis. The last publication on the Offshore Demersal Fisheries dates back to 2012 while the last stock assessment of the offshore banks was carried out in 2005 which clearly indicates that the recommendations of the Management Plan was hardly implemented.

5.6 Assistance from the FAO

Seek the assistance of the Statistics and Information Branch (FIAS) of the Food and Agriculture Organization of the United Nations to provide technical assistance in improving the Small-Scale Fisheries Management by supporting in:

- i. Reviewing the existing Fisheries Information System and recommends accordingly including an appropriate alternative fisheries data management system, more reliable and sustainable.
- ii. Developing a similar software or alternative to estimate catch from the artisanal fishery from 61 Fish Landing Stations - multi-specific and multi-gear fishery as well as data develop modern data capture techniques for both artisanal and FAD fisheries
- iii. Offering capacity building in assessing the state of different fishery resources and their stock
- iv. Training on sampling design, stock assessments and hands-on application of the appropriate tools for assessing fish stocks.

5.7 Encourage collaborative Research, Scientific Reports and Publications

It is instrumental to encourage on-going research and publications as well as review of fisheries management plans and strategies along with sharing of information to showcase successes and lesson learnt. Most of the data collected are compiled and stored but hardly any scientific report on the status of the fisheries has been published with strong recommendations.

In this context, set up a Scientific Working Group (SWG) up to review all the fisheries sectors both from a biological, technical, economic and social point of view so as to keep up with and achieve the ecological and socio-economic sustainability as per the Sustainable Development Goal 14 – Life below water. Furthermore, the SWG shall come up with scientific reports on the performance of each fishery including recommendations as well as encourage continuous scientific research with publications so as to enable the implementation of the Management plans and updating the fisheries strategies and policies accordingly. Overall, scientific findings allow policy-makers to strategise on the proper policy formulation and take appropriate decision.

5.8 Ecosystem Approach to Fisheries - Consultative and Collaborative approach

The Coral Reef Network which was coordinated by the Ministry, provided an integral platform to scientific, technical, academia, Non-Governmental Organizations (NGOs), fishermen communities and the private sector to address reef related challenges for appropriate remedial actions to better protect and conserve marine biodiversity. The Coral Reef Network has a clear mandate, Terms of Reference and plan of action to foster better consultative and collaborative approach to promote conservation of marine biodiversity and sustainably manage marine resources. In the past the collaborative work yielded in crown of thorns, coral predators population control, training in coral reef monitoring and identification and monitoring of coral disease, participation in reef related national events. Subsequently, such platform is instrumental and need to have a national recognition and serve as a national tool for marine protection, conservation and fisheries sustainability through an integrating, consultative and collaborative approach.

5.9 Gender Equality - UNREGISTERED WOMEN IN ARTISANAL FISHERIES

A recent paper (Naggea et al. 2021) found that in the oil spill-impacted sites, the compounding crises of the pandemic and the oil spill have highlighted that woman in fisheries tend to be disproportionately affected by such disasters. Meetings with community groups and community leaders in the aftermath of the oil spill revealed that it is well known that hundreds of people fish for subsistence along the oil spill-impacted, southeast coast of the island. These subsistence fishers are not formally recognised through any registration process. Women tend to be largely unregistered artisanal fishers who walk along the coast at low tide to forage for food sources: shellfish like "Tek tek" (*Donax* spp.), "Mangouak" (*Isognomon* spp.), "Betay" (*Trachycardium* spp., *Gafrarium* spp., *Asaphis* spp., *Tellina* spp.), "Bigorneau" (*Littorina* spp.), "Gono Gono" (*Pleuroploco trapezium*) as well as invertebrates like octopus, and a variety of fish, through a process known as gleaning. Our current system systematically disadvantages these women. Out of 2200 registered fishers, less than 100 of them are women on the island of Mauritius. Although there is likely an equal to larger number of unregistered fishers compared to registered ones, fisherwomen and gleaners are far less likely to be registered or recognized at all.

The study **highlighted** that any policy that discriminates against unregistered fishers in Mauritius, inadvertently discriminates against women. A gender lens should be applied to policy-making, and decision-making should be inclusive of both women and men. It is therefore essential that the Ministry recognizes the contribution and efforts of these women fishers and supports them under Women Empowerment Program.

5.10 Legislation, Regulation and Policies

Several Fisheries Regulations have been promulgated, e.g., ban on sea cucumber, bi-annual closed seasons for octopus fishing, closed season for net fishing amongst others. However, with the ongoing climatic variations and increasing anthropogenic activities, the current Fisheries and Marine Resources Act (2007) needs to be reviewed and upgraded to keep up with the latest developments in the sector and future needs such as enhancing fisheries sustainability, promoting the ecosystem approach to fisheries while conserving the ecological integrity. Moreover, the new reviewed fisheries legislation shall also address the open access nature of the artisanal fisheries and provide the necessary legal framework to further develop the Blue Economy which is high on the Government Agenda. Furthermore, current policies should be properly implemented while new policies should be formulated on the integration of isolated women involved in coastal fisheries activities. The digitization of the fisheries sector with well-established protocols in terms of data capture, registration & licensing within the sector (fishing vessels, Fishers, issuance of fishing license, others) is a must.

6.0 CONCLUSION

The Republic of Mauritius is a signatory to several conventions (Law of the Sea, Nairobi Conventions, Convention on Biological Diversity, and others) with regards to fisheries sustainability. Mauritius is also a member to several binding and non-binding regional fisheries organisations/bodies (SWIOFC, IOTC, IOC, SIOFA) and international fisheries organization (FAO) which provides guiding principles and technological tools for responsible fisheries at all levels. Furthermore, the Marine and Fisheries Resources Act (2007) which provides the legal framework to regulate, control and manage the exploitation of fisheries resources, provide the legislative tools to better protect and conserve marine biodiversity and the ecosystems. Yet, the fisheries sector is very vulnerable to climate change, challenging environment such as extreme weather events. Thus, research and development should be prioritized and promoted to subsequently yield science-driven policy decisions to achieve the ecological and socio-economic sustainability as per the Sustainable Development Goal 14 – Life below water.

Furthermore, the opportunity to better harness the existing untapped fisheries resources should be thoroughly explored and a proper investment mechanism set up to tap new resources, bring in innovation and develop new concepts to better manage the fisheries sector.

6.0 REFERENCES

ASCLME/SWIOFP 2012. Transboundary Diagnostic Analysis for the western Indian Ocean. Volume 1: Baseline

ARDIL, J.D. 1969. Fishery development in Mauritius. Societe de Technologie Agricole et Sucriere de L' Ile Maurice 9: 210-213.

DEGAMBUR, D. AND SÓLMUNDSSON, J., 2005. Stock assessment of the offshore Mauritian Banks using dynamic biomass models and analysis of length frequency of the sky emperor (*Lethrinus mahsena*). Thesis (Fisheries Training Programme). United Nations University.

Department for Continental Shelf, Maritime Zones Administration & Exploration, Prime Minister's Office, 2021

ECONOMIC DEVELOPMENT BOARD, EDB Mauritius. "Ocean Economy." Economic Development Board Mauritius, <https://www.edbmauritius.org/ocean-economy>.

FAO. 2018. The State of World Fisheries and Aquaculture 2018, [fisheries development](#); [fishery production](#); [food security](#); [nutrition](#); [climate change](#), Rome 2018.

FAO. 2019. The State of Food and Agriculture 2019. Moving forward on food loss and waste reduction. Rome.182 pages.

GOVERNMENT OF MAURITIUS, Budget Speech and budgetary Measures 2020/21, Ministry of Blue Economy, Marine Resources, Fisheries and Shipping

GOVERNMENT OF MAURITIUS, Ministry of Blue Economy, Marine Resources, Fisheries and Shipping, Albion Fisheries Research Centre

SAMBOO, C.R. 1989. A reappraisal of the banks fishery in Mauritius. In SWIOP/MAFNR Proceedings of the seminar on the management of the banks handline fishery. FAO/UNDP: RAF/87/008/52/89/E: 13-30.

SANDERS, M.J. 1989. An assessment of exploitation levels in the Banks handline fishery and a management plan to improve the fishery performance. In SWIOP/MAFNR. Proceedings of the seminar on the management of the banks handline fishery. FAO/UNDP: RAF/87/008/WP/52/89/E: 42-53

STATISTICS MAURITIUS 2020. Agricultural and Fish Production Year 2019

UN, 2013. Law of the Sea – Bulletin No. 79 [Online]. New York: United Nations. Available from: http://www.un.org/Depts/los/doalos_publications/LOSBulletins/bulletinpdf/bulletin79_e.pdf

[Accessed 15 December 2021].

WHEELER, J.F.G. and OMMANNEY, F.D.P. 1953. Report on the Mauritius-Seychelles Fisheries Survey 1948-49. Fishery Publication Vol.1 No.3. Her Majesty's Stationary Office, London: 148 p.

6.0 REFERENCES

- ASCLME/SWIOFP 2012. Transboundary Diagnostic Analysis for the western Indian Ocean. Volume 1: Baseline
- ARDIL, J.D. 1969. Fishery development in Mauritius. Societe de Technologie Agricole et Sucriere de L' Ile Maurice 9: 210-213.
- DEGAMBUR, D. AND SÓLMUNDSSON, J., 2005. Stock assessment of the offshore Mauritian Banks using dynamic biomass models and analysis of length frequency of the sky emperor (*Lethrinus mahsena*). Thesis (Fisheries Training Programme). United Nations University.
- Department for Continental Shelf, Maritime Zones Administration & Exploration, Prime Minister's Office, 2021
- ECONOMIC DEVELOPMENT BOARD, EDB Mauritius. "Ocean Economy." Economic Development Board Mauritius, <https://www.edbmauritius.org/ocean-economy>.
- FAO. 2018. The State of World Fisheries and Aquaculture 2018, [fisheries development](#); [fishery production](#); [food security](#); [nutrition](#); [climate change](#), Rome 2018.
- FAO. 2019. The State of Food and Agriculture 2019. Moving forward on food loss and waste reduction. Rome.182 pages.
- GOVERNMENT OF MAURITIUS, Budget Speech and budgetary Measures 2020/21, Ministry of Blue Economy, Marine Resources, Fisheries and Shipping
- GOVERNMENT OF MAURITIUS, Ministry of Blue Economy, Marine Resources, Fisheries and Shipping, Albion Fisheries Research Centre
- SAMBOO, C.R. 1989. A reappraisal of the banks fishery in Mauritius. In SWIOP/MAFNR Proceedings of the seminar on the management of the banks handline fishery. FAO/UNDP: RAF/87/008/52/89/E: 13-30.
- SANDERS, M.J. 1989. An assessment of exploitation levels in the Banks handline fishery and a management plan to improve the fishery performance. In SWIOP/MAFNR. Proceedings of the seminar on the management of the banks handline fishery. FAO/UNDP: RAF/87/008/WP/52/89/E: 42-53
- STATISTICS MAURITIUS 2020. Agricultural and Fish Production Year 2019
- UN, 2013. Law of the Sea – Bulletin No. 79 [Online]. New York: United Nations. Available from: http://www.un.org/Depts/los/doalos_publications/LOSBulletins/bulletinpdf/bulletin79e.pdf
- [Accessed 15 December 2021].
- WHEELER, J.F.G. and OMMANNEY, F.D.P. 1953. Report on the Mauritius-Seychelles Fisheries Survey 1948-49. Fishery Publication Vol.1 No.3. Her Majesty's Stationary Office, London: 148 p.

ANNEX I

The Maritime Zones Act 2005

Also, the Maritime Zones Act provides for the United Nations Convention on the Law of the Sea to have force of law in Mauritius. It defines the maritime zones as including the internal waters, historic waters, archipelagic waters, territorial sea, the contiguous zone, the exclusive economic zone, maritime cultural zone and the continental shelf. It also provides for the jurisdiction of Mauritius in the EEZ and the continental shelf and its rights to explore, exploit, conserve and manage the natural resources whether living or non-living of the EEZ and jurisdiction to carry out marine scientific research and protection and preservation of the marine environment therein.

The National Coast Guard Act 1988

The National Coast Guard Act provides for the enforcement of any law relating to the protection of the maritime zones and prevention and suppression of any illegal activity therein by the National Coast Guard. It can thus take action against any illegal fishing activity in Mauritian waters.

The Merchant Shipping Act 2007

The Merchant Shipping Act provides, among others, for the registration of ships (above 24 m LOA), the safety of navigation and the welfare of seamen. Regulations made under this Act cater for the survey and certification of seaworthiness of fishing vessels and the safety of the dories used by such vessels for fishing purposes.

The Merchant Shipping Act (Safety of Fishing Vessels) Regulations (2000) provides for survey, inspections and certification of fishing vessels whilst the Bank Fishing Dories Regulations (2000) regulates the construction of dories and the equipment to be carried on board dories for safety purposes.

MONITORING, CONTROL AND SURVEILLANCE [MCS]

The FMRA sets the framework and basis for the operational activities of the MCS system. In line with the FAO International Plan of Action to prevent, deter and eliminate IUU fishing a MCS system was put in place since 2000 to prevent, deter and eliminate IUU fishing activities. Under the MCS, a VMS was set up in 2005 with main objective to monitor the fishing activities of local and licensed foreign fishing vessels. Licenses are issued to vessels for fishing in the EEZ of Mauritius provided they are equipped with a transponder. The FMC monitors these fishing vessels to ensure that there is no breach of license conditions. The fishing vessels have to report to the FMC regularly every two hours giving the position, speed and course.

A Port State Control unit has been set up in the port with a view to implement measures based on the FAO Model Scheme on Port State Measures to combat IUU fishing. The Port State Control Unit is responsible for issuing clearances to local

vessels before they leave for a fishing trip. In this context, the FMC has to issue a clearance certifying that the VMS units on board these local vessels are regularly sending data reports to the FMC. In addition, the FMC has to submit VMS clearance to the Licensing Unit of the Ministry prior to issuing fishing license. On arrival of fishing vessels at the port, logbooks are collected by the Port State Control Unit and are dispatched to the FMC for verification. The logbook positions are checked against data reports received by the FMC and anomalies are reported to the Ministry.



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