

# ANNUAL REPORT ON Performance

FINANCIAL YEAR 2017-2018

Ministry of Ocean Economy, Marine Resources, Fisheries And Shipping

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# Part 1 - About the Ministry of Ocean Economy, Marine Resources, Fisheries And Shipping

# **1.1 Statement from the Honourable Minister**

I am pleased to present the Annual Report for the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping for the Financial Year 2017-2018. Since December 2014, the Government has been taking numerous actions to unlock and realise the country's ocean potential in a sustainable and inclusive manner.

For Financial Year 2017-2018, the same momentum has been maintained as various measures have



been implemented and include amongst others, the setting up of coral nurseries at selected sites and a Coral Reef Network Committee for the protection and restoration of coral reefs, establishment of a new maritime training academy by the Mauritius Shipping Corporation Ltd, implementation of the Cannotte and Semi-Industrial Fishing Schemes, finalization of the acquisition of a multi- purpose vessel, conclusion of the Second Protocol for Implementation of Fisheries Sectorial Support Programme under the Republic of Mauritius/European Union Fisheries Partnership Agreement that came into force as from January 2018. It is worth noting that there are 10 new entrants in the bank fishery during the Financial Year 2017-2018.

The sustainability of marine resources is high on the agenda of the Government. My Ministry has taken several measures such as an on-going octopus closed season implemented since 2015 and a marine ranching programme amongst others.

According to Statistics Mauritius, local fish production has increased from 18,956 tonnes in Financial Year 2016-2017 to 25,104 tonnes in Financial Year 2017-2018, representing a double-digit growth of 32.4%. Similarly, notwithstanding the challenging external economic environment, domestic exports of fish and fish preparations have remained buoyant and stood at Rs 11.3 billion for Financial Year 2017-2018 as compared to Rs 9.4 billion for Financial Year 2016-2017.

As regards shipping, with a view to enhancing maritime safety and security, the legal framework has been strengthened as various regulations were enacted and are now in force. In the same vein, my Ministry has successfully implemented the amendments to Safety of Life At Sea (SOLAS) with regard to the verified gross mass

of packed containers. The three-year Search and Rescue Capability Partnership Programme was successfully completed in June 2018. Moreover, the ballast water management and the ship's bio-fouling projects are being implemented.

Investment in skills development remains a priority. The Mauritius Maritime Training Academy has exceeded its target and trained 1,256 persons in Financial Year 2017-2018. Opening up the maritime training market to the private sector has boosted the training capacity as the first approved private maritime training institution, Acropolis Shipping Agency Ltd has trained an additional number of 386 students and more importantly, around 350 of them have been recruited by cruise ships.

Looking ahead, the strengthening of the institutional and regulatory framework would be crucial to move forward with confidence in order to foster the blue growth.

Lastly, I wish to commend the staff of my Ministry for their efforts and hope they will continue their work with the same dedication and even more enthusiasm.

Honourable Premdut KOONJOO Minister of Ocean Economy, Marine Resources, Fisheries and Shipping

# **1.2 Statement from the Permanent Secretary**

It is an immense pleasure for me to present the Annual Report of the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping for the Financial Year 2017-18.

The Report gives an insight into the activities, projects and programmes implemented by the Ministry during the period specified. The Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping is pleased with the successful implementation of different budgetary measures as announced in the Budget speech.



During the FY 2017-2018, fishermen have benefitted grant under the canotte scheme of up to Rs 200,000 and fishermen cooperatives have benefitted from the semi-industrial fishing scheme providing grant of up to Rs 4 million for the purchase of fully equipped fishing boats to fish around the banks. To enhance the fishing sector, some 724,000 cordonnier fingerlings were collected from the wild for fattening and eventual release into the lagoon under the Marine Ranching Programme and to supply fish cage farmers. As a result, a partial harvest of 200 kg of cordonnier was carried out in floating net cages at Grand River South East and Quatre Soeurs. To train the fishers and for the setting up of fish aggregating devices, the Ministry will acquire a multipurpose support vessel of 18.4 m in length amounting to Rs 57m, in September 2019 which is financed from a grant by the Government of Australia.

The Ministry has also successfully concluded the Second Fisheries Protocol with the European Union and a Reciprocal Fishing Agreement with Seychelles. More so, Mauritius has signed Memorandum of Understanding with South Africa for cooperation in the field of fisheries and entered free trade agreement with China.

The Ministry established a lagoonal monitoring programme for the following parameters to determine the level of coliform bacteria, physico-chemical parameters and harmful marine microalgae. The objective of the Monitoring Programme was to ensure compliance with applicable standards.

There have been major achievements in the Shipping Division as well, in terms of implementation of international conventions, successfully passing the audit of Long Range Identification and Tracking of Ships and coming into force of new Merchant Shipping Regulations amongst others.

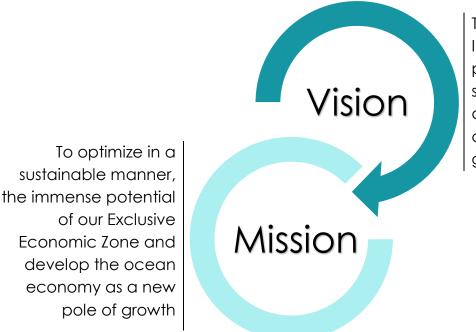
I wish to thank all the stakeholders of the fishing and maritime sectors for their support in the materialisation of these projects and all staff members of the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping for their unflinching support.

Mr Roodradeo BHUGWANT

**Permanent Secretary** 

# 1.3 At a glance

# 1.3.1 Vision and Mission



To make the Ocean Industry an important pillar in order to sustain economic diversification, job creation and wealth generation

# 1.3.2 Key Objectives

The key objectives of the Ministry are to:

- promote the development of economic activities in the ocean industry;
- promote sustainable development and management of fisheries through the adoption of an ecosystem approach and consolidation of aquaculture;
- support the maritime industry and the global trading fleets by expanding the training capacity of the Mauritius Maritime Training Academy in emerging fields of ocean economy;
- develop the shipbuilding/repair industry and promote the services available; and
- characterise the oceanic and coastal environment of the Republic of Mauritius with a view to ensuring optimal long term exploitation of the marine resources.



- 1.3
- Figure 1 Core Values of the Ministry

# 1.3.4 Our Customers

The customers of the Ministry are the fishers involved in aquaculture projects, the fishers community, the fishing industry, ship owners, shipping agents, seafarers welfare associations, the maritime industry, maritime training institutions, oceanography experts, coastal zone users, non-governmental organisations, the public sector, private sector, researchers, students, international partners/lending institutions and the public at large.

# 1.3.5 Services offered



and Fisheries

Marine Resources

# 1.4 Departments, Parastatals and Others



Parastatals/Council

- Mauritius Oceanography
  Institute
- National Ocean Council



#### **Departments**

- Aquaculture Division
- Competent Authority Seafood
- Fisheries Protection Service
- Fisheries Training and Extension Centre
- Laboratories Division
- Marine Conservation
   Division



Figure 3 - Departments and Parastatals of the Ministry

The Departments of the Ministry and their locations are as mentioned in Figure 4.

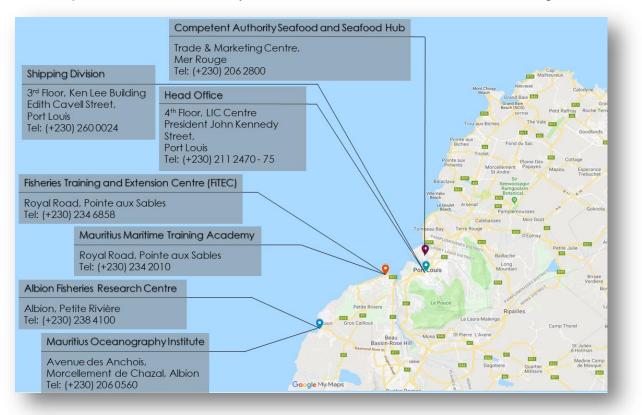


Figure 4 – Location of Departments of the Ministry

# 1.4.1 Departments

#### Aquaculture Division

The Aquaculture Division is responsible for the promotion and development of aquaculture with a view to increasing fish production through research on different marine and freshwater species. Its activities include transfer of aquaculture techniques for production of different fish species to fish farmers, improvement of aquaculture techniques for quality seed production, dissemination of information on aquaculture and provision of technical advice and support. It facilitates and monitors aquaculture projects, release of fingerlings for marine ranching and implementation of the cage culture project.

#### Goal

- · To increase fish production
- To improve aquaculture techniques for quality seed production
- To transfer aquaculture technology to potential fish farmers

#### Objective

- To promote sustainable aquaculture development
- To increase fish production and enhance socio-economic status of the fishermen community
- To impart technical advice on fish culture in floating cage to potential fish farmers.

#### **Competent Authority Seafood**

The Competent Authority Seafood is a unit of the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping. It is responsible for the verification and certification of fish and fish products for export primarily to Member States of the European Union (EU) as well as to non-EU countries.

Its activities are governed by Government Notice 147 of 2009 (Export of Fish and Fish Products Regulations), Government Notice 204 of 2010 (Export of Fish and Fish Products (Amendment) Regulations) and Government Notice 209 of 2012 (Export of Fish and Fish Products (Amendment) Regulations) under the Fisheries and Marine Resources Act 2007.

#### Main Activities:

- registration of Fish Business Operators (with scope such as processing plants, cold stores, freezing vessels and exporters) involved directly or indirectly in the export of fish and fish products to EU and non-EU countries;
- issue of Export Health Certificates for all consignments of fish and fish products according to the importing country's certification requirements;
- inspection of consignments of fish and fish products for compliance before export to EU and non-EU countries;
- official audit, routine/follow-up/ad-hoc inspections of approved facilities for verification of compliance with national and international legislations;
- inspection of fishing vessels providing raw materials to registered processing plants prior to departure for fishing campaign;
- inspection of landing sites for whole frozen/brine-frozen tuna and pelagic/demersal fish;
- inspection and random organoleptic evaluation of fish and fish products imported for further processing before re-export;
- sampling of water, ice, fish and fish products from each EU-approved establishment for analysis in a designated laboratory;
- preparation of a national residue monitoring plan in respect of aquaculture products for approval by the Health and Consumers Directorate-General of the European Commission;
- acting as a member of Technical Committees for new aquaculture projects;
- verification of Health Certificates and related documents;
- controlling imported live fish larvae meant for aquaculture at all stages from point of entry, transfer to nursery, transfer to sea cages, harvesting and transfer to processing plant;
- inspection and approval of quarantine facilities of registered ornamental fish importers and follow up during quarantine period;
- regular monitoring of fish growth at hatchery, nursery and cage level; and
- approval of Veterinary Medicinal Products and prescriptions before being administered to farmfish by registered aquaculture farms.

## Fisheries Protection Service

The Fisheries Protection Service (FPS) is responsible for enforcement of the fisheries legislations and monitoring of the fishing and fishing related activities for the protection and conservation of fishing resources.

#### Main Activities:

- · Enforcement of Fisheries legislations and regulations;
- Conducting coast and afloat patrols, including participation in joint surveillance programme in the Exclusive Economic Zone of the Republic of Mauritius;
- Supervision of 61 fish landing stations, sale points and fishing port;
- Collection of fisheries data;
- Registration and documentation of fishermen/fishing boats;
- · Issue/renewal of net fishing/fishmongers licences;
- Processing payment of bad weather and close season allowances;
- Apprising meteorological services of prevailing weather conditions every morning;
- Daily recording of sea temperature under the Lagoon Monitoring Programme;
- Clearing of fishing vessels in the Port area prior to fishing campaign;
- · Monitoring of activities in the Marine Parks; and
- Prosecuting Court cases regarding Illegal, Unregulated and Unreported (IUU) fishing.

## Fisheries Training and Extension Centre (FiTEC)

The FiTEC is a training centre for fishers, which designs, develops and implements training programmes for stakeholders of the fishing industry in order to meet their training needs consistent with fisheries development goals of the Government.

FiTEC which is mandated to provide formal training to fishers, plays a leading role in developing capabilities for the sustainable development of the fisheries resources and conservation of marine environment.

FiTEC also designs, develops, sets, re-sets and maintains Fish Aggregating Devices (FADs) for the benefits of artisanal fishers. Our endeavour is to maintain a minimum of 75% of FADs active.

#### Laboratories Division

The Laboratories Division at the Albion Fisheries Research Centre comprises three laboratories that are MS ISO/IEC 17025 accredited, namely the Marine Chemistry Laboratory, the Marine Microbiology and Fish Toxicity Laboratory, and the Quality Control Unit Laboratory.

The Division is committed to instill the highest standard of quality for the testing of seawater, the screening of fish for toxicity and dispensing associated services in view of monitoring, protecting and conserving marine resources and safeguarding public health through:

- Long-term monitoring of seawater quality for sustainable coastal zone management;
- Screening and identification of fish deemed to cause ciguatera fish poisoning;
- Long-term monitoring of the density of harmful marine microalgae at established coastal sites in the lagoon of Mauritius; and
- Investigating into cases of fish mortality, alleged marine pollution and harmful algal blooms.

#### Marine Conservation Division

The Division carries out management of Marine Protected Areas including the Blue Bay Marine Park and the Balaclava Marine Park **Main Activities:** 

- Assessing Environmental Impact Assessment (EIA) applications and Preliminary Environmental Reports and submission of appropriate recommendations to the Ministry of Social Security, National Solidarity, and Environment and Sustainable Development and representing the Ministry at the statutory EIA Committee;
- Monitoring of state of corals, seagrass and associated biota, through field and underwater surveys, in Marine Protected Areas and coastal waters;
- Perform underwater ecological surveys for coastal development and tourism related projects such as undersea walk activities, demarcation of swimming zones and construction of jetties;
- Regulate permissible activities through the issue of permits for the Blue Bay Marine Park and interference permits for the other Marine Protected Areas;
- Provide views and recommendations to the National Ramsar Committee;
- Sensitize the public on Marine Protected Areas, sustainable development and use of the coastal zone; and
- Setting up of coral nurseries in the Blue Bay and Balaclava Marine Parks to rehabilitate degraded areas of the marine parks

#### Marine Resources Division

The Division is responsible for carrying out research and development activities aimed at increasing knowledge on the fishery resources found in the EEZ of the Republic of Mauritius with a view to enabling its sustainable utilization. Its activities include research and assessment of fish stocks, monitoring of fishing activities and the dissemination of information on fisheries matters.

#### Main Activities:

#### Offshore Demersal Fishery:

- Collection, processing and analysis of catch and effort data and estimation of yield;
- Collection and analysis of biological parameters of the main fish species, through sampling;
- Data entry and analysis of length and weight data bank-wise and of logbooks in their respective database;
- Biological studies of Polysteganus baissaci;
- Keeping an updated list of all fishing companies and fishing vessels operating in the banks; and
- Estimation of Maximum Sustainable Yield and setting of Total Allowable Catch for the different banks and quota allocation to fishing operators and monitoring.

#### Coastal Fishery:

- Random selection of Fish Landing Stations from the three geographical strata, namely North, East and West regions around Mauritius;
- Monitoring and sampling of catch following the second close season for octopus fishing from 15 August to 15 October 2017;
- Identification of seized fish specimens and submission of reports for the National Coast Guard, Fisheries Protection Service and Police for further prosecution; and
- Training of enumerators.

#### • Pelagic Fishery Project:

- Record logbook data from licensed longliners and purse seiners unloading in Mauritius, and transshipment data made by licensed and non-licensed vessels;
- Collection and processing of catch and length frequency data from the Fish Aggregating Device fishery and catch data from the sport fishery;
- Verification and processing of catch and effort data received from local and foreign licensed vessels;
- Collection and processing of length frequency data upon unloading of longliners and purse seiners;
- Processing of transshipment/landing data from licensed and non-licensed fishing vessels;
- Analysis of tuna data for the study of exploitation rates, species composition, stock structure and spatial distribution;
- Compilation and submission of data to Indian Ocean Tuna Commission (IOTC); and
- Proposing and amending Conservation and Management Measures at the Commission Session of the IOTC.

#### Marine Science Division

The Marine Science Division is mandated to safeguard the marine biodiversity.

The role of the Division is to carry out monitoring of the marine ecosystems so as to generate science based information to enhance existing policies and strategies to develop new tools that will promote better biodiversity conservation and sustainable use of coastal and marine resources. In the same line, ecological surveys are conducted to assess site suitability for coastal development and sea-based tourism related activities in order to avoid any conflicts to sensitive marine ecosystem and fisheries activities while preserving the integrity of the marine biodiversity.

Actions are based on consideration to the consequences of the changing climate including mass coral bleaching as well as infestation from coral predators - crown of thorns, frequent coral disease, sea level rise causing coastal erosion and beach squeeze, unprecedented severe storms and floods:

- Monitoring of coral reef ecosystem to ensure the preservation, conservation and management of marine biodiversity;
- Assess proposed coastal development and sea-based projects on potential impacts on the marine environment to ensure ecological sustainability;
- Implementation of coral farming project around the island to restore degraded reefs;
- Providing technical assistance for mangrove propagation;
- Formulation and implementation of policies to better protect the marine biodiversity;
- Carrying out studies on nesting sites for marine turtles and their protection;
- Implementation of protocols regarding control of crown of thorns density in the reef, stranded marine mammals and marine turtles;
- Conduct ecological surveys for coral bleaching, post-bleaching, sea cucumber abundance and the demarcation of swimming and snorkeling zones; and
- Disseminate/share information through scientific reports and conduct sensitization and awareness campaign on the importance of healthy marine environment and impacts of climate change.

#### Monitoring, Control and Surveillance/Vessel Monitoring System/ Port State Control/ Import/ Export Division

The Monitoring, Control and Surveillance, Vessel Monitoring System, Port State Control and Import/Export Division is geared towards a service providing and regulatory division. Based at the Trade and Marketing Centre, BPML Building, Mer Rouge, the Division forms part of the One Stop Shop - Seafood Hub.

The main objectives of the Division are to (i) combat Illegal, Unreported and Unregulated (IUU) fishing; (ii) have a clean port free of illegal fishing boats/vessels; (iii) control export and trade of legally caught fish and; (iv) have continuous supply of fish and fish products safe for local consumption.

The Vessel Monitoring System (VMS) is located at the Fisheries Monitoring Centre (FMC) at the Albion Fisheries Research Centre. It monitors the location, speed and direction of licensed fishing vessels by means of satellite-based tracking systems.

## Planning and Licensing Division

The Planning and Licensing Division comprises the Planning Unit and the Licensing Unit. The Planning Unit is responsible for planning, formulating fisheries policies and strategies, compiling and processing of fisheries information. The Licensing Unit is responsible for issuing fishing licences to authorise local and foreign fishing boats/vessels to fish in the Exclusive Economic Zone of the Republic of Mauritius.

#### **Shipping Division**

The Shipping Division, which is MS ISO 9001:2015 Certified, is responsible for all maritime safety, maritime security, prevention of pollution from ships, and shipping matters. The Shipping Division is committed to provide a reliable, efficient and customer-oriented service to all stakeholders.

The Shipping Division offers the following services:

- Developing and monitoring maritime safety, maritime security and marine environment protection regulations;
- Registration of ships;
- Ensuring that shipping operations and practices are conducted according to international standards;
- Flag State Surveys Conducting safety surveys and inspections on Mauritius Ships;
- Port State Control Inspection Inspection of foreign flagged ships calling at Mauritius ports;
- Supervise engagement and conditions of employment of seafarers;
- · Examination and certification of seafarers;
- · Conducting Maritime Casualties Investigation;
- Providing a coastal maritime safety and distress radio service through the Mauritius Telecom and overseeing services provided by the organisations under contract, mainly in the area of marine radio services;
- Monitoring of services offered by the Classification Societies/Recognized Organization on behalf of the Government of Mauritius;
- Approval of Maritime Courses and Maritime Institutions;
- Enforcing provisions of the Maritime Labour Convention;
- Coordination of search and rescue activities in Mauritius waters; and
- Collecting statistical data and conducting trend analysis.

#### Mauritius Maritime Training Academy

The Mauritius Maritime Training Academy (MMTA) provides maritime training to youngsters and other persons who wish to make a career at sea.

MMTA has as mission to provide quality and value added training adapted to the needs of the Mauritius maritime industry and the region as per international standards.

Courses offered at the MMTA include Basic Safety/ Crowd/ Crisis Management/ Proficiency in Security Awareness, Designated Security Duties and Rating forming part of Engineering Watch.

# 1.4.2 Parastatals and Council

The Parastatal Bodies and Council operating under the aegis of the Ministry and their main objectives are as indicated at Figure 5 below.

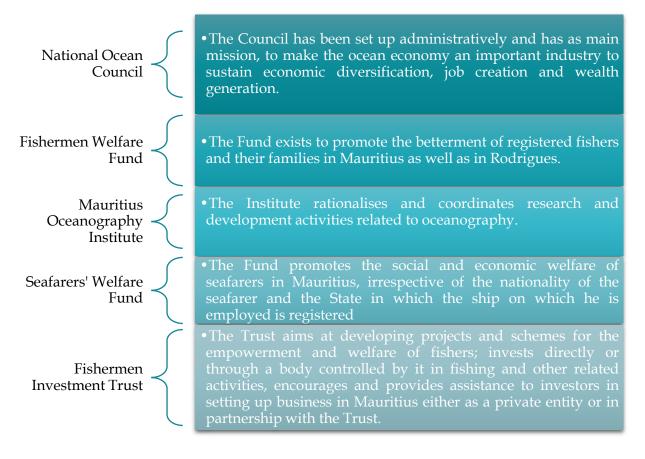


Figure 5 – Main objectives of Parastatal Bodies and Council under the aegis of the Ministry

# **1.5 Gender Statement**

For the Financial Year 2017-2018, the Ministry had proposed to implement the following projects/activities from the allocated sum of Rs 200,000 for Gender Mainstreaming:

- (i). Workshop on "Women participation in scientific research on boats in the lagoon";
- (ii). Brainstorming Workshop with theme "Gender Equality v/s Gender Equity";
- (iii). Workshop on "Gender issues in the fisheries sector";
- (iv). Setting up of a gymnasium corner with essential amenities for wellness of staff; and
- (v). Workshop on meditation, team building exercise, emotional intelligence, marital and premarital counseling.

However, due to time constraints, the Ministry had not been able to proceed with the projects during the Financial Year 2017-2018.

# **1.6 About our people**

# 1.6.1 Staff Members

The Ministry is headed by a Permanent Secretary assisted by two Deputy Permanent Secretaries, the Administrative Staff and Line Managers (Human Resources/Financial Operations/ Procurement and Supply).

The Ministry has a workforce of 592 employees which is distributed in the sections/divisions as shown in Figure 6.

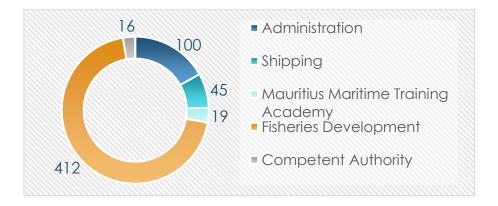


Figure 6 – Deployment of staff members of the Ministry

#### MINISTRY OF OCEAN ECONOMY, MARINE RESOURCES, FISHERIES AND SHIPPING

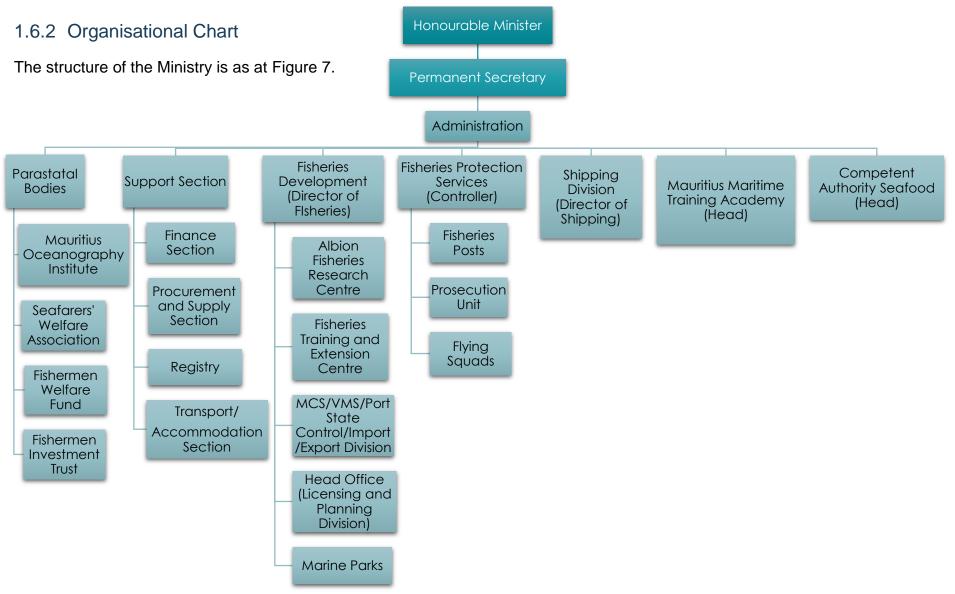


Figure 7 - Organigram of the Ministry

# 1.6.3 Contact Details of Senior Officials

#### I Administrative Cadre

#### 1. Senior Chief Executive

Mrs FONG WENG - POORUN Kan Oye (01.07.2017 to 07.02.2018)

#### 2. Permanent Secretary

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# 1.6.4 Scarcity Areas

The Ministry is encountering difficulties in the filling of vacancies in certain grades, which fall under the category of scarcity areas. Details of these are given in Table 1:

SN	Grade			Division/Unit/ Section
i	Principal	Marine	Engineering	Shipping Division
ii	Marine Engineering Surveyor, Marine Engineering Inspector			Shipping Division
iii	Nautical Surveyor, Nautical Inspector			Shipping Division
iv	Head, Deck Department			Mauritius Maritime Training Academy
v	Head, Engineering Department			Mauritius Maritime Training Academy
vi	Marine Training Officer			Mauritius Maritime Training Academy
vii	Petty Officer			Mauritius Maritime Training Academy
viii	Fishing Boat Inspector (Engineering)			Fisheries Development
ix	Fishing Boat Inspector (Nautical)			Fisheries Development
X	Skipper			Fisheries Development
xi	Second Hand Fishing (Limited)			Fisheries Development
xii	Deckhand/Fisherman			Fisheries Development
xiii	Motorman/E	Engine Drive	r	Fisheries Development

Table 1 - Details of Grades falling under scarcity areas

In fact, there is a dearth of qualified candidates on the labour market for the Maritime sector and this is a worldwide phenomenon. The Republic of Mauritius being a small island, is facing much constraints in this area, the more so, not many youngsters are willing to undertake higher studies in the maritime sector and proceed with a career in this direction. On the other hand, it is noted that candidates who possess the required qualification in the maritime field are easily absorbed in the private sector where they obtain more attractive pay packets coupled with interesting fringe benefits.

However, for the smooth running of work, the Ministry is:

- a) reviewing the existing Schemes of Service; and
- b) having recourse to contract employment.

# 1.6.5 Training

The purpose of training and development function is to organise and facilitate learning and development, expedite acquisition of knowledge, skills and abilities required for effective job performance. A training programme allows to strengthen the skills that each employee need to improve.

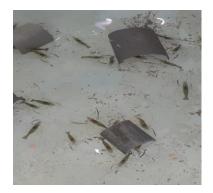
- a) Fifty eight (58) officers followed overseas training during financial year 2017-2018
- b) Thirty six (36) officers followed local training during financial year 2017-2018

# Part 2 - Achievements and Challenges

# 2.1 Major Achievements

# 2.1.1 Aquaculture Division

- Some 724,000 fingerlings (siganus sp/ "cordonnier") were collected from the wild for fattening and eventual release into the lagoon under the Marine Ranching Programme and to supply fish cage farmers.
- A total of 38,335 sea bream fingerlings was produced in the hatchery at the AFRC. Under the Marine Ranching Programme for stock enhancement, 10,000 sea bream fingerlings were released in the lagoon of Albion whilst the remaining were stocked in ponds at AFRC.
- A partial harvest of 200 kg of *siganus sp* ("cordonnier") was carried out in floating net cages at Grand River South East and Quatre Soeurs.
- Mass production of Phytoplankton (*Nannochloropsis sp.*) and zooplankton/rotifers (*Brachionus plicatilis*) were undertaken for the larval rearing of silver seabream.
- A total of 6,245 berri rouge fingerlings were distributed to 109 persons and a total of 15,200 berri rouge fingerlings were sold to 16 persons (free distribution are made for any request up to 100 berri rouge fingerlings and Rs1.25 each is charged for request of more than 100 berri rouge fingerlings).
- 15,000 freshwater prawn juveniles were produced and sold to farmers.
- Technical assistance and support were provided to 120 persons who called at the Aquaculture Division for information on aquaculture projects.





#### MINISTRY OF OCEAN ECONOMY, MARINE RESOURCES, FISHERIES AND SHIPPING

Figure 9- Freshwater prawn brooders in hatchery tanks Figure 8 - Sea bream Fingerlings (90 days old)

### 2.1.2 Competent Authority Seafood (CASF)

- 2,925 EU Export Health Certificates issued by the CASF
- 1,251 non-EU Export Health Certificates issued by the CASF
- 41 audits carried out by the CASF
- The total number of registered Fish Business Operators maintained was 30
- There was one newly registered Fish Business Operator
- The total Revenue of the CASF for period from July 2017 to June 2018 was Rs 4,764,003

### 2.1.3 Fisheries Protection Service

During the period July 2017 to June 2018, 317 cases relating to fisheries have been reported as shown in Table 2 and Figure 10, of which 149 are illegal net fishing resulting in seizure of 5,108.08 metres of illegal nets.

From July 2017 to June 2018, 84 cases were prosecuted, resulting in Rs 155,900 collected fine (Table 3).

Month	lllegal Nets (unit)	Underwater Fishing (unit)	Undersized Fish (unit)	Other Cases	Total cases	Net Secured (metres)
			2017			
July	13	18	0	3	34	344.00
August	20	10	0	5	35	847.02
September	17	11	3	1	32	1,090.85
October	11	12	0	6	29	301.25
November	9	9	0	2	20	164.80
December	4	9	1	0	14	84.13
			2018			
January	15	7	0	10	32	504.40
February	22	4	1	7	34	581.65
March	5	8	2	2	17	104.25
April	9	14	0	3	26	191.00
Мау	10	13	0	0	23	345.33
June	14	6	0	1	21	549.40
Total	149	121	7	40	317	5,108.08

Table 2 - Statistics from Fisheries Protection Service

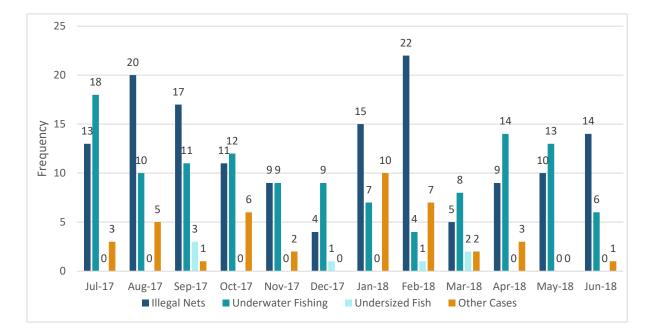


Figure 10 - Statistics from Fisheries Protection Service

Year 2017			Year 2018		
Month	No. of Cases	Fine (Rs)	Month	No. of Cases	Fine (Rs)
July	10	18,500	January	1	500
August	14	21,600	February	4	10,400
September	16	27,300	March	4	1,000
October	6	15,500	April	5	3,500
November	12	35,700	May	3	6,000
December	6	6,900	June	3	9,000
Total	64	125,500	Total	20	30,400

Table 3 - Fines	s inflicted in breach	of Fisheries Act

### 2.1.4 Fisheries Training and Extension Centre

- A multipurpose support vessel, 18.4 m in length amounting to Rs 57 M is under construction in Australia. The vessel is expected to be delivered at Port Louis in September 2019.
- Training in 'Fish Handling, Preservation and Marketing' was provided to 91 fishmongers.
- Training in 'General Course for Fishers' was provided to 51 fishers.
- 18 sea trips were carried out for the re-setting, verification and maintenance of FADs around the island.
- 11 FADs were replaced and 15 FADs were kept active as at June 2018.



Figure 11 - FAD deployed at sea to attract migratory pelagic fish



Figure 12 - Initiating trainee fishermen to use sail as a complementary mode of propulsion



Figure 13 - Trainee fishermen participating in deployment of Fish Aggregating Device

### 2.1.5 Laboratories Division



- The Mauritius Accreditation Service (MAURITAS) maintained the accreditation of the Marine Chemistry Laboratory and the Marine Microbiology Laboratory to the MS ISO/IEC: 17025 Standard after its 3<sup>rd</sup> surveillance assessment on 07 March 2018.
- The Marine Chemistry, the Marine Microbiology and the Fish Toxicity Laboratories successfully participated in the International Proficiency Testing Programme for quality assurance and the technical competence of its test results.



Figure 14 - Analysis of seawater sample in Marine Chemistry Laboratory

346 seawater samples were collected from the 26 permanent representative sites (which are, Bel Ombre, Bambous Virieux, Trou d'Eau Douce, Anse la Raie, Trou aux Biches, Pointe aux Sables, Bain des Dames, Grand Bay, Baie du Tombeau, Harbour, Poudre d'Or, Balaclava, Blue Bay/ Blue Bay Marine Park, Belle Mare, Albion, Flic en Flac, Palmar, Mon Choisy, Pereybère, Le Morne, Ile aux Benitiers, Bain Boeuf, Ferme Marine de Mahebourg Ltd, Baie du Tombeau Outfall, Montagne Jacquot Outfall and Pointe Moyenne Outfall) and 2,688 analyses were conducted for physico-chemical parameters.

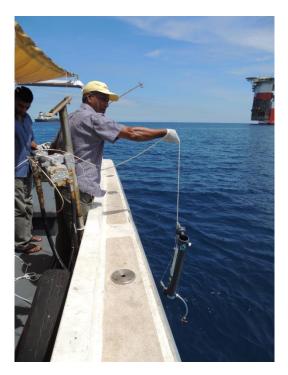


Figure 15 - Collection of seawater sample using Niskin water bottle

- 374 seawater samples were collected from the 13 selected public beaches (which are Flic en Flac, Trou aux Biches, Mon Choisy, Blue Bay, Albion, Pointe aux Sables, Grand Baie, Le Goulet, Belle Mare, Pereybère, Baie du Tombeau, Sable Noir, La Cuvette) and 748 analyses were performed to determine the level of coliform bacteria.
- 100 samples were collected from five representative sites and examined for harmful marine microalgae.
- 20 fish samples were processed for toxicity tests.
- 6 designated aquaculture sites allocated to Fishermen Cooperative Societies were monitored for seawater quality.
- Pursuant to the monitoring of analyses made on fish samples collected at Le Bouchon for heavy metals, the ban imposed on fishing in June 2016 was lifted in March 2018.

Carlos Carlos Carlos

### 2.1.6 Marine Conservation Division

 25 basal tables to accommodate 2,500 coral fragments have been installed at selected sites in the Blue Bay Marine Park. About 2,000 coral fragments have been fixed on the basal tables and same are being monitored.



Figure 16 - Coral Farming - Setting up of coral nurseries at Blue Bay Marine Park and Trou aux Biches (2018)

- 317 permits were issued/renewed for permissible activities in Marine Protected Areas amounting to Rs 1,828,300.
- 58 Environmental Impact Assessment (EIA) Reports, amongst which 26 coastal, were processed and views submitted to the Department of Environment.
- 16 applications for Ramsar clearance were processed and views of the Ministry were submitted to the National Ramsar Committee.
- 88% of ground-truthing surveys of specific areas of mangroves around the coastal belt of the Republic of Mauritius were completed.
- The long term monitoring of coral reefs in the Blue Bay Marine Park (5 stations) and the Balaclava Marine Park (5 stations) were completed.
- 29 ad-hoc ecological surveys were carried out in respect of coastal development projects.

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### .7 Marine Resources Division

- In the Banks Fishery, a total of 1,791.2 tonnes of fish was landed by 4 vessels. 11 landings/logbooks were verified and 2 sampling exercises were conducted for *Lethrinus mahsena* (frozen) involving 512 specimens.
- In the Saint Brandon Inshore Fishery, a total of 233.5 tonnes of fish was landed by 12 vessels. 81 landings/logbooks were verified and 6 sampling exercises were conducted for frozen fish involving 794 specimens.
- In the Chilled Fish Fishery, a total of 320.7 tonnes of fish was landed by 19 vessels. 137 landings/logbooks were verified and 5 sampling exercises were conducted for chilled and frozen fish involving 689 specimens.
- In the Deepwater Snapper/Grouper Fishery, a total of 398.7 tonnes of fish was landed by 10 vessels. 68 landings/logbooks were verified and 2 sampling exercises were conducted for chilled fish involving 343 specimens.

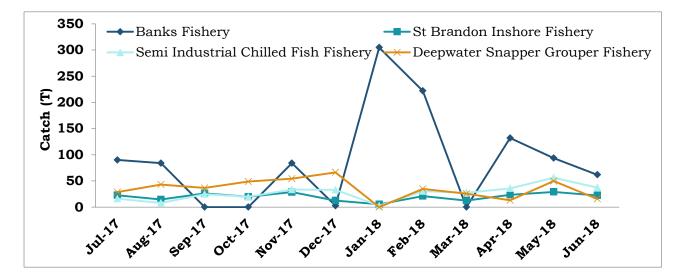


Figure 17 - Monthly catch by fishery - Offshore demersal fishery project (July 17 – June 18)

- In the Coastal Fishery, 25 Fish Landing Stations were randomly selected each month from the three established geographical strata, namely North, East and West region around the Republic of Mauritius and 1,000 landings were monitored. The total catches at fish landing stations amounted to 705.7 tonnes.
- Mean octopus weight doubled during the closed season, from 596 g before closure to 1,136 g after the re-opening. Catch Per Fishermen per Day before

closure was 1 – 6 kg compared to up to 20 kg after re-opening closure. A total of 86.9 tonnes of octopus was caught in FY 2017-2018.

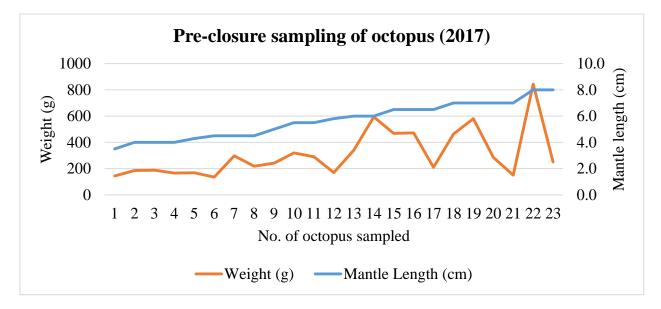


Figure 18 – Sampling of octopuses before closure of octopus fishery (2017)

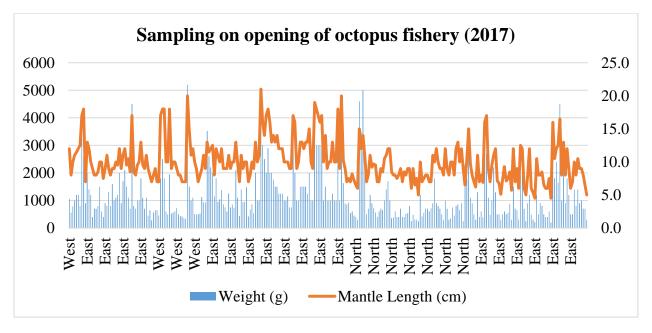


Figure 19 - Sampling of octopuses after opening of octopus fishery (2017)

 2,427 units of various marine specimens, representative of 122 occurrences of various offences against the Fisheries and Marine Resources Act 2007 were examined and identified.

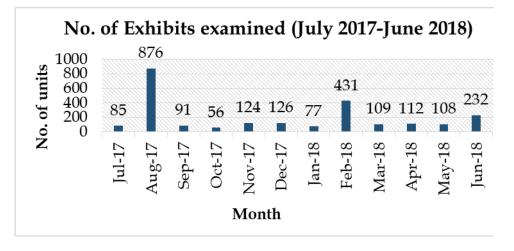


Figure 20 - No. of exhibits examined from July 2017-June 2018

- Catch in respect of Mauritius-flagged longliners was about 452 tonnes. 109 logbooks were received and 822 samplings effected for length frequency.
- Catch in respect of Foreign-flagged longliners was about 5,777 tonnes. 166 logbooks were received and 790 samplings effected for length frequency.
- Catch in respect of Mauritius-flagged purse seiners was about 18,270 tonnes.
   32 logbooks were received.

### 2.1.8 Marine Science Division

 The long-term monitoring of coral reefs was continued at Albion, Le Goulet, Baie du Tombeau, Trou aux Biches, Bel Ombre, Ile aux Bénitiers, Belle Mare, Poudre d'Or, Bambous Virieux and Anse la Raie.



Figure 21 - Coral Reef Monitoring 2017-2018

 Surveys on crown of thorns (starfish that feeds on live corals) infestation and control exercises using concentrated white vinegar was carried out at Trou aux Biches, Eau Bleu and Bambous Virieux.

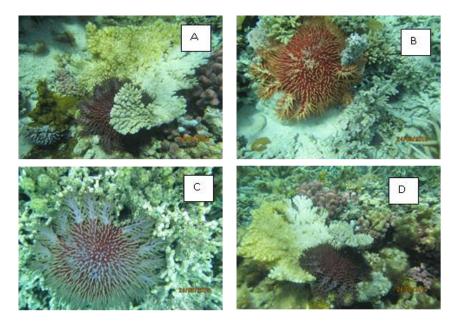


Figure 22 - A & D – Fresh feeding scars; B & C – COTs actively feeding on tabulate Acropora sp.

- Coral farms were monitored at Balaclava, Blue Bay and Trou aux Biches.
- 15 additional nurseries were placed in the Blue Bay Marine Park, giving a total of 30 nurseries, at present, in the Marine Park. Each nursery can accommodate 96 coral fragments.
- Underwater surveys were carried out to assist in sea-based activity projects of the Mauritius Tourism Authority and the Ministry of Tourism.
- Surveys for the demarcation of swimming zones, namely one in Grand Baie on 14 December 2017 and one at Crystal Beach, Belle Mare on 22 March 2018, were completed and recommendations were submitted.
- A Coral Reef Network (CRN) which is a common platform for the scientific/technical communities and other stakeholders has been set up. The platform regroups over 30 members from various governmental, non-governmental, parastatal and private institutions dealing with coral reefs.
- Surveys on turtle nesting sites were carried out around the Republic of Mauritius including Flat Island and Gabriel Island.

 As per the Action Plan for stranded mammals and marine turtles, treatment and rehabilitation of injured marine turtles (2 cases) and disposal of dead marine turtles/mammals (5 cases) were carried out.



Figure 23 - Marine Turtle released after rehabilitation at the AFRC

- 2.1.9 Monitoring, Control and Surveillance/ Vessel Monitoring System/ Port State Control/ Import/ Export Division
  - 185 individuals/companies were registered as importers for the import of fish and fish products.
  - Each importer paid a registration licence fee of Rs 25,000 to the Mauritius Revenue Authority, which amounted to Rs 4,625,000 for the 185 registered importers.
  - 65,223.9 tonnes of fish and fish products were imported for processing and 6,369.3 tonnes for direct consumption.
  - A total of 1,977.24 tonnes of aquaculture products, fish and fish products including canned fish and fish meal and fish oil were exported.
  - A new platform namely the Trade Net Portal to issue import and landing permit for fish and fish products has been introduced to improve efficiency in delivery of services.

- 3 Observers participated in the Observer Programme on board Purse Seiners
   FV Belle Rive and FV Belle Isle involving coverage of 167 days at sea.
- 362 Departure Clearances for local semi-industrial fishing boat/vessels were issued
- 1,504 Processing Statements were verified, validated and endorsed.
- 811 Catch Certificates were verified and validated.
- 851 callings of foreign fishing vessels were recorded.
- 342 callings of local fishing vessels were recorded.
- 728 boarding and inspections were carried out in the port on fishing boats/ vessels.
- 20 callings of Patagonian Toothfish vessels were recorded.
- 1,752,195 kg of Patagonian Toothfish were transshipped involving 12 vessels.
- A total of 52,240 tonnes of tuna and tuna-like species were transshipped at port by fishing vessels calling at port.
- A total of Rs 15,250 was received by the Documentation Unit from the sales of books, maps, charts, and books published by the Ministry.
- Details on import of fish and fish products for the FY 2017-2018 is presented in Table 4 below.

Туре	Product	Jul-Dec 2017 (Kg)	Jan-Jun 2018 (Kg)	Total (Tonnes)
CHILLED	Fish	53,014	48,777	101.8
	Crustacean	11,259	9,335	20.6
	Cephalopod	666	1,065	1.7
	Shell fish	6,228	6,523	12.8
FROZEN	Fish	2,374,656	2,194,507	4,569.2
	By-catch	1,059,655	942,408	2,002.1
	Controlled fish sp.	11,770	28,355	40.1
	Crustacean	1,023,326	1,036,830	2,060.2
	Cephalopod	590,249	597,720	1,188.0
	Shell fish	39,984	51,286	91.3
FROZEN/PP	Fish	684,854	683,668	1,368.5
	Cephalopod	90	138,768	138.9
	Crustacean	65,224	34,733	100.0
FROZEN/BS	Barracouta	504,307	648,861	1,153.2
FROZEN/TP	Tuna/processing	58,978,939	39,922,361	98,901.3
FROZEN/T	Tuna	5,740,663	7,800,261	13,540.9
FROZEN/SA	Snoek	13,500	4,000	17.5
CANNED	Fish	2,589,452	1,761,979	4,351.4
	Crustacean	230	85	0.3
DRIED	Fish	41,082	37,999	79.1
PRODUCTS	Crustacean	32,685	53,303	86.0
	Cephalopod	700	360	1.1
LIVE	Ornamental fish	552,104	359,,816	911.9
	Fish for culture (u)	3,000,000	2,300,000	5,300.0
	Oyster for culture	0	0	0.0
DRY	Fish feed	2,419,778	2,354,361	4,774.1
	Fish meal	0	0	0.0

Table 4 - Import of fish and fish products

- A total of 3,431 landing permits were issued during FY 2017-2018
- Details of export of fish and fish products for FY 2017-2018 are given in Table 5 below.

Products	July-December 2017 (Tonnes)	January-June 2018 (Tonnes)	Total (Tonnes)
Salted Snoek	18.02	22.48	40.5
Chilled fish	103.10	17.921	121.02
Chilled fish from Aquaculture	576.543	779.088	1,355.62
Fish meal	5,724	4,644	10,368
Fish oil	670	628	1,298
Frozen/precooked	7,097	5,524	12,621
Frozen /processed	7,661	5,611	13,272
Frozen fish	20,721	23,827	44,548
Tuna in pouch	3,319	4,910	8,229
Tuna in Jars	251.355	248.463	499.82
Canned tuna	21,717	19,300	41,017
Products	July-December 2017 (unit)	January-June 2018 (unit)	Total (unit)
Live marine Ornamental fish	2,170	1,722	3,892
Live fresh water ornamental fish	2,436	6,758	9,194
Export Authorisation	2,257	2,245	4,502

Table 5 - Export of fish and fish products

### 2.1.10 Planning and Licensing Division

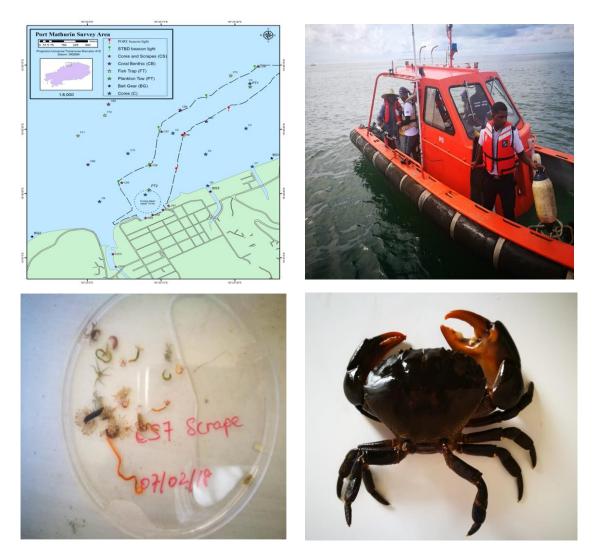
- 22 registered fishermen benefitted from a grant, under the Canotte Scheme of up to Rs 200,000 for the purchase of fibre-glass fishing boats of length 8 – 12 m for fishing in the off-lagoon areas.
- Four fishermen cooperative societies benefitted from the Semi-Industrial Fishing Scheme providing for a grant of up to Rs 4 million for the purchase of fully-equipped fishing boats to fish around the banks.
- A new Fishing Agreement between the Republic of Mauritius and the European Union was successfully negotiated, which came into force as from January 2018.

- A new Fishing Agreement between the Republic of Mauritius and the Republic of Seychelles was successfully negotiated, which came into force as from February 2018.
- A Memorandum of Understanding between the Republic of Mauritius and the Republic of South Africa for cooperation in the field of fisheries was signed in June 2018.
- A Free Trade Agreement was signed between the Republic of Mauritius and People's Republic of China to promote trade between the two countries.
- Four bank fishing vessels were active on the Saya de Malha and Nazareth Banks. A total of five licences were issued representing an amount of USD 2,000 (for foreign flagged vessel) and Rs. 3,000 for local vessels.
- Ten new fishing boats joined in the demersal chilled fish fishery. A total of 35 licences were issued, representing an amount of Rs 35,000.
- Two purse seiners and one supply vessel were active in the pelagic fishery. Six licences were issued, generating USD 64,000.
- A total of 140 Foreign Fishing Licences/Extension Licences were issued in respect of longliners outside Fishing Agreement of nationalities of Republic of China, Republic of Korea, Malaysia, Sultanate of Oman and People's Republic of China, which amounted to USD 1,106,000.
- Four licences were issued in respect of purse seiners/supply vessel of nationality of Republic of Korea, representing a total licence fee of USD 8,750.
- Under the Fishing Agreement between the Republic of Mauritius and the Republic of Seychelles, a total of 38 licences were issued, generating a total licence fee of USD 308,000.
- Under the Fishing Agreement between the Republic of Mauritius and the European Union, a total of 54 licences were issued to purse seiners/longliners and the total licence fee amounted to EUR 306,550.

 A total of 13 Letters of Intent were issued to acquire vessels under the Semiindustrial Chilled Fish Fishery (12) and the Advance Coastal Fishery (1). Nine extensions of Letter of Intent were issued as follows: Semi-industrial Chilled Fish Fishery (8) and Advance Coastal Fishery (1).

### 2.1.11 Shipping Division

- ISO Certification 9001 version 2015 on 25 April 2018.
- Maintenance of Republic of Mauritius in IMO STCW White List
- An agreement has been signed with the MOI for the conduct of the Port Biological Baseline Survey (PBBS) of Port Mathurin, Rodrigues, to detect the presence of any introduced species. The Port Mathurin PBBS was held over a



period of 8 days, from 04 to 11 February 2018

Figure 24 - Team members from MOI and Shipping Division conducting analysis of sample at Port Mathurin, Rodrigues, to detect the presence of any introduced species

- Acropolis Shipping Agency Ltd is the first private Maritime training Institution that has been approved by this Ministry to conduct STCW courses.
- The Shipping Division successfully coordinated a total of 2 Search and Rescue (SAR) operations in collaboration with the NCG (Operational arm of the Shipping Division for SAR).
  - For Yacht "Island Bird" (22 May 2018), four crew members were saved; and
  - For Fishing Vessel Battuta (28 June 2018), eight fishermen were saved.
- The IMSO audit of the Mauritius LRIT National Data Centre was conducted on 19 March 2018 and the Centre has successfully passed same and was found to be performing up to required standards.
- The following three (3) New Merchant Shipping Regulations have been made by the Minister, under Section 228, of the Merchant Shipping Act, 2007, and proclaimed to give effect to a number of requirements of the International Conventions to ensure the safety and security of Mauritius Flag vessels.
  - The Merchant Shipping (Safe Manning, Hours of Work and Watchkeeping) Regulations 2017 - Made by Minister on 19 July 2017; [International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978]
  - Merchant Shipping (International Safety Management) (ISM Code) Regulations 2018 - Made by Minister on 31 May 2018; and [Safety of Life at Sea (SOLAS) Convention, 1974]
  - Merchant Shipping (Certificate of Competency and Certificate of Proficiency) Regulations 2018 - Made by Minister on 31 May 2018 [Merchant Shipping Act (MSA), 2007]
- Some Statistics from the Shipping Division are represented in Table 6.

	July 2017 to June 2018				
1	No. of vessels registered under the Mauritian flag	142			
2	New vessels registered	5			
3	No. of vessels deleted from ship registry	14			
4	No. of Surveys and Inspections	47			
5	No. of Casualties	0			
6	No. of Port State Control Inspections	1			
7	No. of Outward Port Clearances issued	2,941			
8	No. of Endorsement of Certificates of Competency issued by	123			
	Foreign Administration				
9	No. of Mauritian Certificates of Competency issued	30			
10	No. of Continuous Discharge Books issued	1167			

Table 6 - Statistics from Shipping Division

## 2.1.12 Mauritius Maritime Training Academy

• During the Financial Year 2017-2018, 1256 people were trained, meeting the yearly target of 1200.

Course	Number of candidates trained	Number of male candidates trained	female
Basic Safety/ Crowd/ Crisis Management/ Proficiency in Security Awareness	1241	947	294
Designated Security Duties	13	6	7
Ratings forming part of as on Engineering Watch	2	2	0
Total	1256	955	301

## 2.2 Budget Measures

Tahle	8 -	Rudaet	Measure	2017-2018
Ianc	0 -	Duuget	<i>Measure</i>	2011-2010

Budget para	Budget Measures	Status as at 30 June 2018
100	Extension of the validity of the fishing rights permit from one year to five years for fishing vessels flying the Mauritian flag, subject to all their catch being unloaded and processed in the Republic of Mauritius.	Technical Assistance for the implementation of the fishing right in the bank fisheries has been sought from the Government of New Zealand.
102	Extension of the scheme for fishermen cooperative societies to acquire semi-industrial vessels for another year.	<ul> <li>Invitation of Expression of Interest from new applicants for one cooperative society was launched in December 2017.</li> <li>Following selection exercise, no project was retained.</li> <li>An Expression of Interest will be launched anew.</li> </ul>
104	Setting up of sea-based coral farms for developing ornamental corals for the tourism sector, aquarium market and high-end jewellery manufacturing.	Two nurseries at La Gaulette (West) and two nurseries at Quatre Soeurs (East) established.
106	Setting up of a new Maritime Training Institute by the Mauritius Shipping Corporation Ltd, in collaboration with RINA	Due to non-compliance to the Merchant Shipping (Maritime Training Providers) Regulations 2018 and the Ministry's Guidelines, the proposed Maritime Training and Logistics Academy has not yet been given the green light to conduct courses as per the requirements of the STCW Convention 1978 (as amended)

# 2.3 Key Actions

Key Action	Кеу	Target	Achievement as at 30
	Performance	2017-	June 2018
	Indicator	2018	
Capacity Building in long	Number of	50	24 members of a
line fishing on semi-	candidates to be		cooperative society have
industrial vessels	trained		been identified for this
			training course.
Increase fish production	Number of tonnes	40	About 1.5 tonnes of fish
through fish floating cages	of fish harvested	tonnes	harvested
provided to fishermen	through floating		(Some of the cages were
cooperatives/ associations	cage culture		damaged/ affected
for small-scale			during unfavourable
aquaculture.			climatic condition/
			cyclone and allowed
			escape of fish)
Increasing the number of	Number of	2,000	Courses are demand
candidates trained at the	candidates trained	(The	driven, the number of
Mauritius Maritime Training	at the Mauritius	Ministry	candidates registered
Academy	Maritime Training	had	and trained during the
	Academy	submitted	Financial Year 2017-
		a number	2018 was 1,256.
		of 1,200	
		as target)	

Table 9 - Key Actions 2017-2018

## 2.4 Other Internal Developed Key Performance Indicators

Key Action	Кеу	Target 2017-18	Actual
	Performance		2017-18
	Indicator		
Long term	No. of Stations	All ten stations	All stations were
monitoring of coral	Monitored	monitored, that is, five	monitored in FY 2017-
reef ecosystem in		stations at Blue Bay	18
the Blue Bay and		Marine Park and five	
Balaclava Marine		stations at Balaclava	
Parks		Marine Park	
A coral farming	Number of	A total of 2,500 coral	During FY 2017-18,
project in the Blue	coral	fragments installed at	2,000 coral fragments
Bay Marine Park	fragments	selected sites in the	have been fixed on the
	installed	Blue Bay Marine Park	basal tables and same
			are being monitored

Table 10 - Other internal developed KPI's

# 2.5 Risk Management, Citizen Oriented Initiatives and Good Governance

### 2.5.1 Events

i. World Maritime Day 2017

In the context of the commemoration of the World Maritime Day 2017 on Saturday 14 October 2017, the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping had organised a number of activities at Aurélie Perrine Passenger Terminal, Quay D, Port Louis.

There were guided visits on board of the following ships berthed at Quay D and Quay E:

- M/V Mauritius Trochetia (owned by MSCL);
- Tug Sir Edouard (owned by MPA); and
- CGS Vailant (owned by NCG).

All visitors had been issued a lottery ticket. A lucky draw was held on 31 October 2017 at the Shipping Division and the winning prize was two (2) return tickets for a trip on board M/V Mauritius Trochetia (Mauritius-Rodrigues-Mauritius), offered by the Mauritius Shipping Corporation Limited.

#### ii. Opening season for octopus fishing

The closed season for octopus fishing is been carried out every year during the period from 15 August to 15 October. For the opening season for octopus fishing on 16 October 2017, a competition was organised for registered artisanal fishers around the island to award the biggest catch of octopus. The first prize of Rs 10 000 was awarded to a fisher from Le Morne for a catch of 5.2kg. The second prize of Rs 5 000 was awarded to a fisher from Quatre Soeurs for a catch of 4.9kg. The third prize of Rs 3 000 was awarded to a fisher from Bambous Virieux for a catch of 4.4kg.

# 2 MWA FERMTIR LAPES OURIT 15 Out ziska 15 Oktob

LAVI ENN OURIT	<b>ZESTYON OURIT</b>
ANT I EK 2 MWA ZOT KOLWANS RETOURN VER BRIZAN. TI BABA OURIT KAN LI NE, LI MEM GROSER EK ENN ZONG POLS. LI FLOTE DAN KOLIPAN LAMER PULS KI ENN KILOWET AN DEOR BRIZAN, SEKI VE DIR AN OT MER.	• ENN LESPES KI GRANDI VIT • ZOT VIV ZISKA: 18 MWA
TI OLIRIT VIV LOR BRIZAN, ZOT MANZ BANN KRISTASE KI KASIE DAN KORAV KASE. OLIRIT PAS PRESKE TOLI ZOT LAVI LOR BRIZAN. ZOT LASAS BANN TI PWASON EK BANN KRISTASE. ZOT VIV ZISKA 18 MWA EK ZOT GALEN BOLIKOU PTI.	18 mwa 25lb300g 16 mwa 12lb400g
Contraction of the second seco	13 mwa 7 6lb200g 10 mwa 7 Slb100g
DIZEF EKLO DAN LAKAZ OLIPIT EK SO MAMA APPE BANN TI BABA FANE LOP	7 mwa 🚀 1lb300g 5 mwa 🚀 400g
APPE & A IO MWA, BANN FEMEL OURIT PONN ZOT DIZEF DAN BANN TI TROU DAN DILO PLI FON EN DEOR BRIZAN.	3 mwa 🎻 200g

# FERMTIR ENA 2 GRAN LINPAKT

· LOR KRWASANS- ZOT PWA PRAN 2 MWA PU DOUBLE · OGMANTASION POPILASION OURIT

# LAVANTAZ KI ENA KAN RESPEKTE GROSER Ourit ki gagn drwa lapes

. TI OURIT KAPAV GRANDI TOUT LONG LANE



Figure 25 – Information on closed season for octopus fishing

### iii. Disposal of Seized Items

In accordance with section 64 (1) and (2) of the Fisheries and Marine Resources Act 2007, the Ministry had carried out the disposal of seized items on 11 October 2017, for which:

- a) Court action had already been completed or which did not warrant court action.
- b) Request for disposal had been received from the National Coast Guard.
- c) Court forfeited and referred to the Ministry for disposal.

The seized items consisted of illegal fishing nets, harpoons, underwater spear guns and other illegal artisanal fishing tackles. The illegal fishing gears were seized following several crackdown operations and during coast and afloat patrols. The seized items were transported from Mahebourg Fisheries Post to Mare Chicose landfill for disposal.

- iv. On 09, 10 and 11 February 2018, the Mauritius Maritime Training Academy participated in the Mauritius International University Career Expo at the Swami Vivekananda Convention Centre, Pailles.
- v. The Shipping Division organised the 5<sup>th</sup> Meeting of the Southern African Regional Cooperation Group on Safety of Navigation and Marine Protection (SAGNEP) on 21 and 22 February 2018.
- vi. On 28 February 2018, the Laboratories Division participated in the "Science Day" at the Rajiv Gandhi Science Centre.
- vii. The Mauritius Maritime Training Academy participated in "Forum des Métiers" at Rivière du Rempart organized by the Rotary Club of Haute Rive on 23 and 24 March 2018.

### viii. Search and Rescue Exercise (SAREX III)



Figure 26 - Search and Rescue Exercise (SAREX III) - Scenario

The Search and Rescue Exercise, SAREX III under the SCPP was successfully conducted from the 20 March to 23 March 2018 at the Motivation Hall, National Coast Guard Headquarter, Les Salines by officers who attended the Train-the-Trainer and SAREX Workshop in Canberra in February 2018.

The following stakeholders participated in the SAREX III:

- National Coast Guard;
- Department of Civil Aviation;
- Mauritius Radio Services;
- Mauritius Meteorological Services; and
- Shipping Division of this Ministry.



Figure 27 - Search and Rescue Exercise (SAREX III)

### ix. Search and Rescue Capability Partnership Program

Successful Implementation of Australian Maritime Safety Authority (AMSA) Search and Rescue Capability Partnership Program (SCPP) launched in January 2015. The SCPP aiming at strengthening the search and rescue (SAR) capabilities of the Republic of Mauritius, Sri Lanka and Maldives, all of which have SRR boundaries with Australia, was successfully completed in June 2018. A total of 101 Mauritian Officers from various organisations benefitted from training.

The programme was completed and a closing ceremony was organised on 11 April 2018 at Le Meridien Hotel in Pointe aux Piments in the presence of the Minister of Ocean Economy, Marine Resources, Fisheries and Shipping, Honourable Premdut Koonjoo, as well as other eminent personalities.



Figure 28 - AMSA Search and Rescue Capability Partnership Programme Closing Ceremony at Le Meridien

- The Mauritius Maritime Training Academy participated in "Job & Education Fair 2018" at Coeur de Ville, Flacq on 28 and 29 April 2018.
- xi. World Oceans Day 2018

An official function was organised by the Mauritius Oceanography Institute in collaboration with the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping and the University of Mauritius to celebrate the World Oceans Day on Friday 8 June 2018 in the Paul Octave Wiehe Auditorium at Réduit. The

theme for year 2018 was "Preventing plastic pollution and encouraging solutions for a healthy ocean".

Moreover, there was a beach cleaning exercise which was effected from MMTA to FiTEC at Pointe aux Sables by fishers of the locality, NGOs and officers of the Ministry.

On Saturday 9 June 2018, there was cleaning of sea by divers of the Ministry and NGOs, and cleaning of beach by officers of the Ministry, fishers and NGOs at the Blue Bay Marine Park, Pointe d'Esny/Pointe Jérome and the public beach at Mahebourg.



Figure 29 - Staff of the Ministry participating at the cleaning exercise at Blue Bay Marine Park

## **2.6 Implementation Plan – Director of Audit Comments**

Issues					
(Report	DOA Comments	Proposed Measures	Status of Actions taken/		
Ref)			Implementation Date		
Mauritius Shipping Corporation Ltd (MSCL)					
19.1	Loans to MSCL - Rs 107.2	- The terms and	A letter dated 06 April 2018 was		
	million:	conditions of financial	sent to MOFED on procurement		
	The repayment terms had	assistance provided	of new vessel and proposal for		
	not been re-scheduled and	should be clearly	conversion of MSCL		
	no repayment had yet been	defined.	government loans plus accrued		
	made by MSCL.	- A proper mechanism	interests into equity amongst		
		should be set up for the	others.		
		monitoring of			
		repayment of loans.			
19.2.	Procurement of a Vessel:	- Projects should be	The Government decided to		
	As at 30 September 2017,	closely and properly	purchase a new multipurpose		
	more than three years after	monitored	cargo vessel instead of a new		
	the disposal of the Mauritius	- Proper coordination	vessel in replacement of M/V		
	Pride, the MSCL has not yet	and communication	Mauritius Pride.		
	acquired a second hand/new	should exist among the	This was included in the		
	vessel. Delays at different	MSCL, the Ministry and	budgetary measure for		
	stages of procurement led to	other stakeholders.	FY 2018/19.		
	increased cost of chartering				
	vessel MV ANNA.				
	The method of financing the				
	acquisition of the new vessel				
	not yet determined.				
		Fisheries Division			
19.3	Aquaculture Projects -Fish	- An Expression of	Out of the 17 fish farming zones		
	Farming Zones:	Interest should have	allocated to various promoters		
	Out of the 20 large scale fish	been launched for the	for aquaculture projects five		
	farming zones, only 17 were	large scale aquaculture	were operational as at 2003 (2		
	allocated to Promoters.	projects.	zones), 2014 (1 zone) and 2015		
	Eight zones were allocated	- Before the	(2 zones).		
	to the same promoter A. As	proclamation of zones	Twelve zones had not started		
	of end of August 2017, the	for Fish Farming, the	operation due to unavailability of		
	projects have not yet	Ministry should have	an EIA Licence which is		

Issues (Report Ref)	DOA Comments	Proposed Measures	Status of Actions taken/ Implementation Date
	started.	obtained the views of	mandatory for operating a fish
	The Ministry granted	relevant stakeholders to	farm at sea.
	authorisation for the use of	ensure that the	8 zones had been allocated to
	the fish farming zones based	identified zones were	same promoter as there was no
	on the recommendation of	suitable for	request from other promoters for
	the Technical Committee set	implementation of the	those fish farming zones
	up by the BOI. However, the	fish farming projects.	The sites at Trou aux Biches
	Technical Committee did not		and Anse La Raie have not
	include a representative of		been allocated to any promoter
	the Ministry of Tourism.		as there was no request for
			these sites
			Necessary action was taken to
			have a representative of the
			Ministry of Tourism in the
			Technical Committee
19.4.	Vested Barachois:	- An Expression of	EOIs were not launched as the
	Promoters, to whom Letters	Interest should have	aquaculture projects in
	of Intent were issued, were	been launched for the	barachois were carried out on a
	authorised to use the	allocation of public	pilot basis jointly between the
	barachois for aquaculture	properties.	Ministry and the promoters,
	projects free of charge jointly	- An Agreement or a	subject to conditions as laid
	with the Ministry for a certain	Memorandum of	down by the Ministry.
	period of time on a pilot	Understanding should	Provision was made for
	basis without any lease	be entered into with	amending conditions and adding
	agreement/deed of	both parties.	new ones in letter of
	concession and launching	- The Ministry should	authorization, whereby a
	an Expression of Interest.	ensure that, proper	retrieval clause may be
		procedures are	inserted
		followed.	

# Part 3 – Financial

WILL

80000

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Performance

## **3.1 Financial Highlights**

1. As per the Budget Estimates, the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping had two votes under its control as follows:

- > 21-1-Ocean Economy, Marine Resources and Shipping
- > 21-2-Fisheries

Appropriation of funds was made under these votes.

2. Revenue collected by Departments falling under the aegis of the Ministry, could be classified into the following two broad categories:

- Fees (including licence fees)
- > Non Tax Revenue (including sale of products, course fees and port clearance)

### 3.1.1 Statement of Revenue

The breakdown of the revenue of the Ministry for FY 2017-18 was as shown in Table 11 below.

SN	Statement of Revenue			
		2016-2017 Actual (Rs)	2017-2018 Estimates (Rs)	2017-2018 Actual (Rs)
1	Fishing Vessel Licence	58,334,688	54,000,000	63,061,733
2	Shipping Fees	8,232,533	8,400,000	5,022,892
3	Fisheries Fees	7,200,000	20,270,000	11,516,800
4	Sales of Products	170,852	20,000	37,000
5	Miscellaneous (Fisheries)	5,158,930	5,400,000	5,123,705
6	Miscellaneous (Shipping)	6,090,961	6,500,000	5,892,490
	Total	85,187,964	94,590,000	90,654,620

Tabla	11_	Statement	of Revenue	of the	Ministry
rable	11-	Statement	or Revenue	or the	iviiriiStry

### Note:

- (1) Increase in revenue collected in respect of fishing vessel licence was noted due to the fact that payment was computed in US Dollar. An increase on exchange rate was noted in FY 2017-2018 compared to FY 2016-2017 as well as an increase in the number of fishing vessel licence being issued.
- (2) Increase in fisheries fees due to the fact that revenue in respect of processing fees for inspection and permits/fees to operate in Marine Protected Areas have increased.

The Actual Revenue for FY 2016-2017 and FY 2017-2018 is represented in Figure 30.

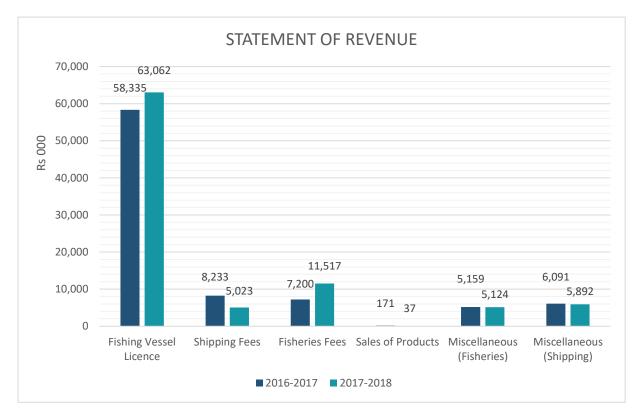


Figure 30 - Actual Revenue for FY 2016-2017 and FY 2017-2018

### 3.1.2 Statement of Expenditure

Expenditure incurred by the Ministry for FY 2017-2018 was as indicated in Table 12 below.

SN	Head/Sub-Head of Expenditure	2016-2017 Actual (Rs)	2017-2018 Estimates (Rs)	2017-2018 Actual (Rs)
1	Compensation of Employees	238,398,293	273,284,000	247,154,104
2	Goods and Services	103,412,737	131,791,000	89,515,289
3	Subsidies	473,250	600,000	462,600
4	Grants	199,724,373	93,000,000	87,115,241
5	Social Benefits	-	10,000	10,000
6	Other Expenses	76,677,379	111,015,000	95,300,562
7	Acquisition of Non-Financial Assets	18,217,866	88,300,000	35,417,880
	Total	636,903,898	698,000,000	554,975,676

### Note:

- (1) Increase in compensation of employees was due to filling of some posts and payment of increment in January 2018
- (2) Decrease in grants was due to transfer of Outer Islands Development Corporation from this Ministry to the Ministry of Local Government and Outer Islands
- (3) Increase in respect of Other Expenses was due to the implementation of Off Lagoon Fishing Scheme i.e. Purchase of Canotte and Semi Industrial Fishing Boat
- (4) Increase in expenditure incurred under acquisition of Non-Financial Assets was mainly due to Acquisition of a Multi-Purpose Support Vessel by the Ministry

Figure 31 shows the Actual Expenditure for the FY 2017-2018.

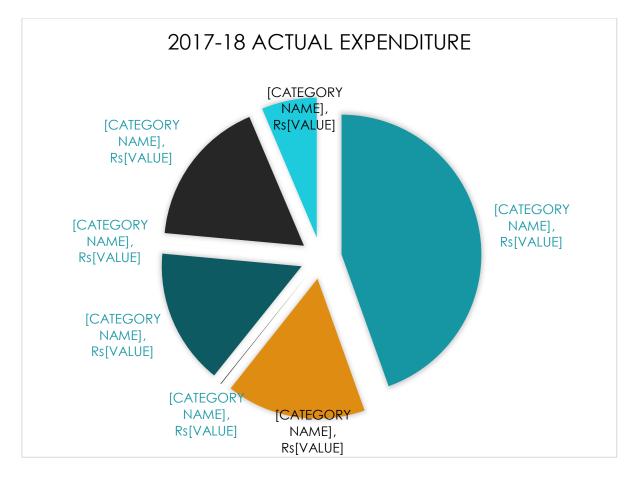


Figure 31 - Actual Expenditure for FY 2017-2018

### 3.1.3 Vote 21-1-Ocean Economy and Shipping

### Statement of Revenue for Vote 21-1

Table 13 gives the statement of revenue with regard to Vote 21-1 - Ocean Economy.

SN	Statement of Revenue			
	Revenue	2016-2017 Actual (Rs)	2017-2018 Estimates (Rs)	2017-2018 Actual (Rs)
1	Shipping Fees	8,232,533	8,400,000	5,022,892
2	Miscellaneous (Shipping)	6,090,961	6,500,000	5,892,490
	Total	14,323,494	14,900,000	10,915,382

Table 13 - Statement of Revenue for Vote 21-1-Ocean Economy

#### Note:

- (1) The revenue estimates for FY 2017-2018 in terms of annual fees for vessels registered under the Mauritian flag was Rs 7,077,525. A number of vessels included in the estimates of FY 2017-2018 were deleted from the Mauritius Registry upon request of owners due to end of economic life or vessels are no more operational. This amounted to Rs 655,305.
- (2) For the above period, only Rs 5,022,892 had been collected and Rs 2,054,633 remained due.
- (3) Out of the amount due, Rs 655,305 accounted for vessels which had been deleted from the Mauritius Registry during FY 2017-2018
- (4) Total amount of arrears outstanding as at 29 June 2018 amounted to Rs 1,095,454.14.

#### Statement of Expenditure for Vote 21-1

Table 14 gives details of the statement of expenditure.

Table 14 - Statement of Expenditure for Vote 21-1 Ocean Economy

SN	Head/Sub-Head of Expenditure	2016-2017 Actual (Rs)	2017-2018 Estimates (Rs)	2017-2018 Actual (Rs)
1	Compensation of Employees	69,189,994	88,865,000	77,820,314
2	Goods and Services	47,578,692	67,310,000	48,542,864
3	Subsidies	473,250	600,000	462,600
4	Recurrent Grants	148,007,395	44,600,000	42,730,234
5	Capital Grants	44,128,172	38,000,000	34,329,500
6	Social Benefits	-	10,000	10,000
7	Other Expenses	75,277,851	75,315,000	75,255,350
8	Acquisition of Non-Financial Assets	9,503,300	9,300,000	8,172,830
	Total	394,158,654	324,000,000	287,323,692

## 3.1.4 Vote 21-2-Fisheries

#### Statement of Revenue for Vote 21-2

Table 15 gives the statement of revenue with regard to Vote 21-2-Fisheries.

SN	Statement Of Revenue			
	Revenue	2016-2017 Actual (Rs)	2017-2018 Estimates (Rs)	2017-2018 Actual (Rs)
1	Fishing Vessel Licence	58,334,688	54,000,000	63,061,733
2	Fisheries Fees	7,200,000	20,270,000	11,516,800
3	Sale of Product	170,852	20,000	37,000
4	Miscellaneous (Fisheries)	5,158,930	5,400,000	5,123,705
	Total	70,864,470	79,690,000	79,739,238

Table 15 - Statement of Revenue for Vote 21-2-Fisheries.

#### Statement of Expenditure for Vote 21-2

Table 16 gives the statement of expenditure with regard to Vote 21-2-Fisheries.

Table 16 -	Statement of	Expenditure for	or Vote 21-2-	Fisheries
------------	--------------	-----------------	---------------	-----------

SN	Head/Sub-Head of Expenditure	2016-2017 Actual (Rs)	2017-2018 Estimates (Rs)	2017-2018 Actual (Rs)
1	Compensation of Employees	169,208,299	184,419,000	169,333,790
2	Goods and Services	55,834,045	64,481,000	40,972,425
3	Subsidies	-	-	-
4	Grants	7,588,806	10,400,000	10,055,507
5	Social Benefits	-	-	-
6	Other Expenses	1,399,528	35,700,000	20,045,212
7	Acquisition of Non-Financial Assets	8,714,566	79,000,000	27,245,050
	Total	242,745,244	374,000,000	267,651,984

## 3.2 Analysis of Major Changes

#### 3.2.1 Revenue

In FY 2016-2017 Fishing Vessel Licence, Fisheries Fees and Miscellaneous Fisheries Fees represented 83 % of the total revenue collected and the remaining 17% were collected in respect of Shipping Fees. Fishing Vessel Licence was the major component of revenue with a 68% share.

In FY 2017-2018, same had been noted with 88% revenue collected under the Fisheries Division and 12% for the Shipping Division. Fishing Vessel Licence had remained the main component of Revenue for Ocean Economy. Fishing Vessel Licence represents 70% of total revenue collected in FY 2017-2018

#### 3.2.2 Expenditure

In FY 2016-2017, 37% of expenditure incurred was under Compensation of Employees, 16% under Goods and Services, 31 % under Subsidies and Grant, 12% under Other Expenses and the remaining 3% under Acquisition of Non-Financial Assets. However, this tendency had slightly changed in FY 2017-2018 where 45 % of expenditure had been incurred under Compensation of Employees, 16% under Goods and Services, 16% for Subsidies and Grants, 17% under Other Expenses and 6% only for Acquisition of Non-Financial Assets.

# Part 4 – Way Forward

## 4.1 Trends and Challenges

Strengths

Weaknesses

- Two Marine Parks and six Fishing Reserves in Mauritius
- Courses at MMTA are of international standard based on STCW Convention 1978, as amended
- Vast Exclusive Economic Zone
- Accredited laboratories with trained personnel having relevant expertise.
- Shipping Division is certified MS ISO 9001:2015

#### • Member of the International Maritime Organization (IMO)

- On the IMO STCW White List
- Logistics and facilities for training fishers in the new fishing techniques are available

- Shortage of technical staff in different departments
- Inadequate Marketing and General Maritime Awareness
- Limited research on marine environment
- Lack of Convention size ships on the Mauritius Ship Registry to berth Cadets
- No incentives to attract new entrants in the shipping industry

Figure 32 - SWOT Analysis of the Ministry – Strengths and Weaknesses



Figure 33 - SWOT Analysis of the Ministry - Opportunities and Threats

# 4.2 Strategic Direction

#### 4.2.1 Aquaculture Division

- Continue the pilot project to obtain viable result
- Transform small scale community aquaculture into successful SMEs
- Established techniques for breeding and culture of marine as well as fresh water ornamental fish.
- Implement aquaponics project
- Enforce the Extension Unit for proper monitoring of the project.

## 4.2.2 Competent Authority Seafood

• Recruitment of a Head (Competent Authority Seafood) and additional officers in the Veterinary and Technical Cadre

## 4.2.3 Fisheries Protection Service

- Completion of all pending projects
- Timely analysis of needs for submission of budget proposals

## 4.2.4 Fisheries Training and Extension Centre

- Dispense training in order to improve knowledge, skills and attitude to fish efficiently and safely in the outer lagoon thus improving fishers' livelihood
- Sensitise fishmongers on good fish handling practices with a view to providing safe and quality fish to consumers

### 4.2.5 Laboratories Division

 Aims at becoming the benchmark in providing analytical test for seawater quality, contaminants in marine sediment and biota, fish toxicity test, and identification and enumeration of harmful algal bloom.

#### 4.2.6 Marine Conservation Division

- Continue the long-term monitoring of the coral reef ecosystems and associated marine fauna and flora within the Blue Bay Marine Park and Balaclava Marine Park
- Following the setting up of coral nurseries using the basal tables in the Blue Bay Marine Park, the Marine Conservation Division will transplant the successfully grown up corals fragments to the degraded areas of the park
- To continue reviewing of the existing Fisheries and Marine Resources (Marine Protected Areas) Regulations 2001 and amended Regulations 2007
- Carry out the preparatory phase of the construction of Balaclava Marine Park Centre.
- Carry out activities under Component 2 of the UNDP project "Mainstreaming biodiversity within the management of the coastal zone of Mauritius". This includes the reviewing of the Management Plan of the Blue Bay Marine Park, development of Management Plans for the 6 fishing reserves and purchase of equipment for monitoring and surveillance of Marine Protected Areas.

#### 4.2.7 Marine Resources Division

- Improve data collection, processing and analysis for the Coastal Fishery, Offshore Demersal Fishery and the Pelagic Fishery using updated/latest Software
- Promote research, fish biology and stock assessment
- Better collaboration among institutions
- Undertake Resource Assessment of Deepwater Snappers and Groupers
   on the slopes of the Saya de Malha bank

#### 4.2.8 Shipping Division

- Review of Organisational Structure
  - To develop strong leadership and encourage team work at all levels
  - To be a flexible, responsive, proactive and fast moving organisation

- To work within time frames
- Recruitment of Technical Staff To enhance the capabilities of the Shipping Division and to achieve excellence as a Maritime Safety Administration
- Develop an appropriate legal and Regulatory Framework
  - Develop Maritime Policy and formulate rules and regulations
  - Implementation of International Maritime Conventions ratified by the Republic of Mauritius
  - Ratify additional conventions relating to Maritime Safety, Security and Protection of the Marine Environment
  - Enhance the image of the Republic of Mauritius as a reputable Ship Registry.
  - Enhance national participation in the development and ratification of Maritime Conventions and Standards
  - Develop a Luxury Yachts Registry
- To enhance the visibility of job and career opportunities in the Maritime Sector:
- To encourage youngsters to pursue career in the Maritime Sector:

#### 4.2.9 Mauritius Maritime Training Academy

- Opening up job opportunities
- Promote marketing and maritime awareness
- Training of trainers and staff
- Filling of vacant posts
- Diversification of training courses
- Workshop/Conference on Maritime Education and Training
- Decentralisation of training courses

# List of Acronyms

AFRC	-	Albion Fisheries Research Centre
AMSA	-	Australian Maritime Safety Authority
BOI	-	Board of Investment
CASF	-	Competent Authority Seafood
CRN	-	Coral Reef Network
EEZ	-	Exclusive Economic Zone
EIA	-	Environmental Impact Assessment
EOI	-	Expression of Interest
EU	-	European Union
FAD	-	Fish Aggregating Devices
FITEC	-	Fisheries Training & Extension Centre
FPS	-	Fisheries Protection Service
FY	-	Financial Year
GMDSS	-	Global Maritime Distress and Safety System
GRSE	-	Grand River South East
GT	-	Gross Tonnage
HF	-	High Frequency
HR	-	Human Resources
HRMIS	-	Human Resource Management Information System
ILO	-	International Labour Organisation
IMO	-	International Maritime Organization
IMSO	-	International Mobile Satellite Organisation
IOTC	-	Indian Ocean Tuna Commission
IUU	-	Illegal, Unreported and Unregulated
LRIT	-	Long Range Identification and Tracking of Ships
M/V	-	Motor Vessel
MAURITAS	-	Mauritius Accreditation Services
MCS	-	Monitoring, Control and Surveillance
MMTA	-	Mauritius Maritime Training Academy
MOFED	-	Ministry of Finance and Economic Development
MOI	-	Mauritius Oceanography Institute
MoU	-	Memorandum of Understanding

MPA	-	Mauritius Ports Authority
MSA	-	Merchant Shipping Act
MSB	-	Mauritius Standard Bureau
MSCL	-	Mauritius Shipping Corporation Limited
NCG	-	National Coast Guard
NGO	-	Non-Governmental Organisation
NOC	-	National Ocean Council
PBBS	-	Port Biological Baseline Survey
PMS	-	Performance Management System
PSSA	-	Particularly Sensitive Sea Area
SAGNEP	-	Southern African Regional Cooperation Group on Safety of
		Navigation and Marine Protection
SAR	-	Search and Rescue
SAREX	-	Search and Rescue Exercise
SCPP	-	Search and Rescue Capability Partnership Programme
SDCIS	-	Shipping Division Computerised Information System
SME	-	Small and Medium Enterprise
SOLAS	-	International Convention for the Safety of Life at Sea, 1974
		(as amended)
SRR	-	Search and Rescue Region
STCW	-	International Convention on Standards of Training,
		Certification and Watchkeeping for Seafarers, 1978 (as
		amended)
VGM	-	Verified Gross Mass
VMS	-	Vessel Monitoring System