



REPUBLIC OF MAURITIUS

Annual Report on Performance Fiscal Year 2016/17



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

CONTENTS

PART I – About the Ministry of Ocean Economy, Marine Resources, Fisheries And Shipping	1
1.1 Vision And Mission	1
1.2 Statement From the Minister	2
1.3 Statement From The Senior Chief Executive.....	4
1.4 Roles And Functions Of The Ministry of ocean economy, marine resources, fisheries & shipping	5
1.4.1 Core Value	5
1.4.2 Customers	6
1.4.3 Services Offered	6
1.5 About Our People.....	7
1.5.1 General Background.....	7
1.5.2 The Ministry	7
1.5.2.1 Workforce.....	7
1.5.2.2 Administration	7
1.5.3 Viewpoint on the Ocean Economy	7
1.5.3.1. Contribution of the Ocean Economy to GDP.....	8
1.5.3.2. National Ocean Council	8
1.5.4 Shipping Division	8
1.5.5 Mauritius Maritime Training Academy.....	8
1.5.6 Fisheries Division	9
1.5.6.1 Fisheries Training and Extension Centre (FiTEC)	9
1.5.6.2 Albion Fisheries Research Centre (AFRC)	9
1.5.7 Competent Authority - Certification of Sea Food Products for Exports:	10
1.5.8 Reform Cell.....	15
1.5.9 Scarcity Areas.....	15
1.5.10 Training	16
PART II – Achievements & Challenges	17
2.1. Major Achievements	17
2.2. Status On Implementation Of Budget Measures for Financial Year 2016/2017	19
2.2.1 Purchase of “Canottes”	20
2.2.2. Purchase of semi-industrial fishing boats.....	20
2.2.3. Aquaculture	20
2.3. Status On Implementation Of Key Actions.....	21
2.4. Risk Management, Citizen Oriented Initiatives & Good Governance	22
2.4.1. Audit Report.....	22

2.4.2.	List of Events hosted by Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping.....	22
2.4.3.	Staff Welfare	22
2.4.4.	Health, Safety and Welfare of Staff	22
PART III – Financial Performance		23
3.1	Financial Highlights	23
3.1.1.	Revenue 2015-2016, 2016-2017 (Actual)	23
3.1.2.	Statement of Expenditure	25
3.1.3.	Statement of Revenue - Vote 23-101-Ocean Economy, Marine Resources and Shipping	26
3.1.4.	Statement of Expenditure – Vote 23-101-Ocean Economy, Marine Resources and Shipping.....	27
3.1.5.	Statement of Revenue - Vote 23-201-Fisheries	27
3.1.6.	Statement of Expenditure – Vote 23-201-Fisheries.....	28
3.2.	Analysis Of Major Changes.....	29
3.2.1.	Revenue	29
3.2.2.	Expenditure	29
PART IV - Departments And Other Bodies Falling Under The Ministry		30
4.1.	Shipping Division	30
4.1.1.	Roles and Functions of the Shipping Division	30
4.1.2.	ISO Certification of the Shipping Division	30
4.1.2.1.	Quality Policy.....	31
4.1.2.2.	Quality Objectives	31
4.1.3.	Organisational Structure	32
4.1.4.	Shipping Division Staff.....	33
4.1.5.	Achievements of the Shipping Division.....	34
4.1.5.1.	Salvage Operation of M/V Benita.....	34
4.1.5.2.	Verified Gross Mass of Packed Containers	34
4.1.5.3.	Sensitisation Campaign in Secondary Schools.....	35
4.1.5.4.	Shipping Division Computerised Information System (SDCIS)	35
4.1.5.5.	Global Maritime Distress and Safety System (GMDSS)	36
4.1.5.6.	Long Range Identification and Tracking of Ships (LRIT) – IMSO Audit.....	36
4.1.5.7.	Ballast Water Management Project (BWMP).....	37
4.1.5.8.	Ships’ Bio-fouling Survey in Port-Louis Harbour.....	37
4.1.5.9.	New Merchant Shipping Regulations in Force	38
4.1.5.10.	Salvage Operation of Yacht Gemeos	39
4.1.6.	Statistics	40

4.1.6.1.	Number of Vessels Registered under the Mauritius Flag (2006 – 2017).....	40
4.1.6.2.	Types of Vessels Registered under the Mauritius Flag.....	40
4.1.6.3.	Number of Casualties at Sea (1999 – June 2017).....	42
4.1.6.4.	Port State Control (2005-2017).....	43
4.1.6.5.	Surveys and Inspections Progression (2005 - June 2017).....	43
4.1.6.6.	Other Services Provided by the Shipping Division.....	43
4.1.7.	Workshops/Training/Events.....	44
4.1.7.1.	Anti-Fouling System and Ships Biofouling.....	44
4.1.7.2.	Search and Rescue Capability Partnership Program (SCPP) of the Australian Maritime Safety Authority (AMSA).	44
4.1.7.3.	SOLAS Verified Gross Mass.....	44
4.1.7.4.	Particularly Sensitive Sea Areas (PSSA).....	45
4.1.7.5.	Celebration for “Day of the Seafarer”.....	46
4.2.	Mauritius Maritime Training Academy.....	47
4.2.1	Historical Background.....	47
4.2.1.	Organisational Chart of MMTA.....	48
4.3.	Fisheries Division.....	49
4.3.1.	Roles and Functions of the Fisheries Division.....	49
4.3.1.1.	Fisheries Planning & Licensing Division.....	49
4.3.1.2.	Marine Resources Division.....	49
4.3.1.3.	Monitoring, Control and Surveillance, Vessel Monitoring System, Port State Control and Import/Export Division.....	49
4.3.1.4.	Aquaculture Division.....	50
4.3.1.5.	Marine Science Division.....	50
4.3.1.6.	Marine Conservation Division.....	50
4.3.1.7.	Fisheries Development and Training.....	50
4.3.1.8.	Laboratory Division.....	50
4.3.2.	Staff structure.....	50
4.3.2.1.	Organigram of the Fisheries Technical Services.....	51
4.3.3.	Achievements.....	52
4.4.	Fisheries Protection Service.....	62
4.4.1.	Main responsibilities of FPS.....	62
4.4.2.	Fisheries Protection Service (FPS).....	63
4.4.3.	Achievements.....	64
4.5.	Competent Authority-Seafood.....	65
4.5.1.	Duties and responsibilities.....	65
4.5.1.1.	Competent Authority Seafood (CASF).....	66

4.5.2.	Achievements of the CASF	67
4.6.	Key Responsibilities of Statutory Bodies	68
4.6.1.	Mauritius Oceanography Institute (MOI).....	68
4.6.1.1.	Functions (As per MOI Act 1999).....	68
4.6.2.	Seafarers’ Welfare Fund	68
4.6.2.1.	Objectives	68
4.6.3.	Fishermen Welfare Funds	69
4.6.3.1.	Vision	69
4.6.3.2.	Mission	69
4.6.3.3.	Objectives	69
PART V -	WAY FORWARD.....	70
5.1	Trend and Challenges.....	70
5.2	SWOT Analysis.....	71
5.3	Strategic Direction.....	71
List of Acronyms	vii

List of Acronyms

ADF	-	Assistant Director of Fisheries
AFRC	-	Albion Fisheries Research Centre
AMSA	-	Australian Maritime Safety Authority
CASF	-	Competent Authority – Seafood
DPS	-	Deputy Permanent Secretary
DSO	-	Divisional Scientific Officer
EEZ	-	Exclusive Economic Zone
ETR	-	Electronic Attendance
EU	-	European Union
FAD	-	Fish Aggregating Devices
FITEC	-	Fisheries Training & Extension Centre
FPS	-	Fisheries Protection Service
GMDSS	-	Global Maritime Distress and Safety System
GRSE	-	Grand River South East
GT	-	Gross Tonnage
HF	-	High Frequency
HR	-	Human Resource
HRMIS	-	Human Resource Management Information System
ILO	-	International Labour Organisation
IMO	-	International Maritime Organisation
IMSO	-	International Mobile Satellite Organisation
IOTC	-	Indian Ocean Tuna Commission
IUU	-	Illegal, Unreported and Unregulated
LRIF	-	Long Rays Identification and Tracking of ships
MAURITAS	-	Mauritius Accreditation Services
MMTA	-	Mauritius Maritime Training Academy
MOI	-	Mauritius Oceanography Institute
MoU	-	Memorandum of Understanding
MSB	-	Mauritius Standard Bureau
MV	-	Mother vessel
NCG	-	National Coast Guard
NGO	-	Non-Governmental Organisation
PBBS	-	Port Biological Baseline Survey
PMS	-	Performance Management System
PSSA	-	Particularly Sensitive Sea Area
SAR	-	Search and Rescue
SCPP	-	Search and Rescue Capability Partnership Programme
SDCIS	-	Shipping Division Computerised Information System
SOLAS	-	Safety of Life at Sea
STCW	-	Standards of Training, Certification and Watch keeping for seafarers
VGM	-	Verified Gross Mass
VMS	-	Vessel Monitoring System

1.1 Vision And Mission

Vision:

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

Mission:

To fully optimize in a sustainable manner the immense potential of our Exclusive Economic Zone and develop the ocean economy as a new pole of growth.

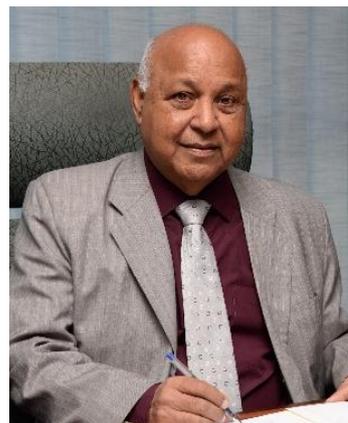


1.2 STATEMENT FROM THE MINISTER

I am pleased to present the Annual Performance Report of the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping for the Financial Year 2016-2017 which highlights the major activities of my Ministry.

As you are aware, the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping was created in December 2014 to bring under one roof all ocean-related matters.

In line with the Government vision, my Ministry has an important role to give a boost to the Ocean Economy Sector with a view to increasing its contribution in the growth of the national economy. This sector is becoming an important economic pillar in Mauritius.



Various initiatives have been taken, so far, to create the conducive environment and to involve the private sector in this vital segment. My Ministry is creating the necessary framework to facilitate development in this emerging sector of the economy.

In this context, seven main clusters with potential for growth have been identified.

These are as follows:-

- (i) fishery;
- (ii) Port ICT;
- (iii) Marine Energy;
- (iv) Sea Food Hub;
- (v) Bank Fisheries;
- (vi) Development of Sustainable Aquaculture; and
- (vii) Lagoon Ecosystem Management.

These clusters will be the pillars for growth in the future.

My Ministry has also taken on board the requirements and aspirations of the coastal fishing community. In this context, various schemes have been implemented and are ongoing.

The main ones are:-

- (i) ten floating cages have been made available to fishermen association cooperative societies around the island. These floating cages are being stocked with fingerlings and maintained free of charge by the Ministry. This measure will not only benefit the fishermen community but also help to provide fresh fish to the population at large;
- (ii) furthermore, the fishermen cooperative societies are being given grant up to Rs4m per society and loan facilities by the Maubank up to Rs4m to purchase Semi-Industrial fishing vessels which will enable them to fish on the banks. I must point out that the potential of fishing on the banks are not optimally exploited. This measure will enable better exploitation of the banks and will reduce our import bills of fish and fish products. The population will benefit from fresh/chilled fish at cheaper price; and
- (iii) the fishermen who are registered at my Ministry are being given the opportunity to apply for a grant of up to Rs200,000- towards financing of larger fishing boats (canottes) which will enable them to fish off lagoons and around Fish Aggregating Devices (FADs) which have been placed and are maintained by my Ministry. This

will contribute to provide greater varieties of fresh fish to the population. It will also help to release the pressure on the already overfished lagoon.

My Ministry has undertaken various infrastructural works relating to the construction of fisheries posts, renovation and upgrading of fish landing stations and is proceeding with the dredging of boat passages at various places to facilitate navigation and increasing the security of fishermen at sea.

I am also pleased to state that two Agreements have been successfully concluded during period concerned.

There are:

- (i) Reciprocal Fishing Agreement with the Republic of Seychelles; and
- (ii) Protocol of the Fisheries Partnership Agreement with the European Union.

I must point out, here, that under the new protocol, Mauritius is benefiting from the financial assistance to implement its Fisheries Sectoral Support Programme.

The Mauritius Marine Training Academy (MMTA) has also trained 1,381 persons, which will enable them to obtain jobs on board ships and cruise vessels. This is in excess of the forecast 1200 persons who should be trained. In addition, the MMTA has acquired equipment and repaired its training boat.

The Shipping Division of my Ministry has registered 6 vessels during the period concerned.

It has also carried out surveys and inspections on 49 vessels, and 1190 continuous discharge books have been issued.

One important measure in the Budget Speech was the exemption of seafarers from payment of Income Tax.

The Division has also gazetted seven Regulations and six more regulations are presently at the State Law Office for vetting purposes. This is to be in line with the requirements of the various International Maritime Organization's (IMO) Conventions and International Labour Organization's (ILO) Maritime Labour Convention.

The computerization of the Division with a view to facilitating the applicants to submit their applications and the Division to give quick and quality services to all stakeholders and the public at large has also progressed during that period.

The successful salvage of MV Benita and the rehabilitation of the lagoon after the exercise is also a noteworthy achievement.

The budget has been implemented satisfactorily and has taken into consideration the need for good governance. I express my deep satisfaction for the good work done, and I thank all the staff for their good performance and support to meet the challenges facing the fishing sector. I hope that this will continue with the same dedication and enthusiasm to develop to meet the challenges of the ocean economy sector.

Honourable Premdut Koonjoo

1.3 STATEMENT FROM THE SENIOR CHIEF EXECUTIVE

I am pleased to present the Annual Report of the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping for the fiscal year 2016/17. This Report has been prepared according to the guidelines issued by the Ministry of Finance and Economic Development.



The Ministry has worked hard to establish itself as a key player in the sustainable economic development of the Republic of Mauritius. The key challenges facing the various components of the Ocean Economy are being sustainably addressed by using solid scientific data on the state of resources, and solutions are implemented for the long term.

The ocean economy provides for the economic activities of ocean-based industries and their contribution to growth and employment, while managing sustainably and responsibly the ocean for the future.

The Ocean Economy is a powerful instrument to spearhead the economic development of the Republic of Mauritius. There are several potential areas of development like Marine Renewable Energy, Fisheries and Aquaculture, Cruise Tourism, and Marine Biotechnology.

It is a fact that worldwide farmed seafood is part and parcel of our future food supply. The present approach in fisheries is towards the development of a seafood industry and aquaculture coupled with training, capacity building and combating IUU fishing forms an integral part of the strategy to contribute to economic growth. Adhering to the FAO Port State Measures Agreement, we have declared zero tolerance on illegal fishing.

The Shipping Division ensures the safety and security of ships, the protection of life and property at sea and the marine environment. It provides support to the maritime industry and the global trading fleets in emerging fields of ocean economy. Registration of Ships, survey and certification of ships and enforcement of international conventions form an integral part of the entire process. With a view to develop a national fleet, we have encouraged companies to register in Mauritius and use Mauritian Flags. AFRITEX has 7 vessels and will register an additional 8 vessels by September 2020.

To encourage fishermen to fish outside the lagoon, two special schemes have been set up to financially assist them. One is a grant of 50% up to a maximum of Rs 200,000 given to purchase canotte for fishing off lagoon to boost local production and the other one is to grant 50% up to a maximum of Rs 4 million to cooperatives to purchase of a semi industrial vessel. Another accompanying measure is the training of the fishermen in new type of fishing particularly in long line fishing technique.

We are straining every sinew to push government Ocean Economy agenda forward by removing administrative barriers to uphold environmental, social and economic standards in the sector. As a responsible player we have ensured of having acted effectively, efficiently and responsively to deliver services focused on the needs of our stakeholders and the citizens at large whilst operating in a very different and fast changing environment.

I thank all the staff of the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping for their collaboration and efforts to meet the challenges ahead of us.

K. O. Fong Weng-Poorun (Mrs.)
Senior Chief Executive

1.4 ROLES AND FUNCTIONS OF THE MINISTRY OF OCEAN ECONOMY, MARINE RESOURCES, FISHERIES & SHIPPING

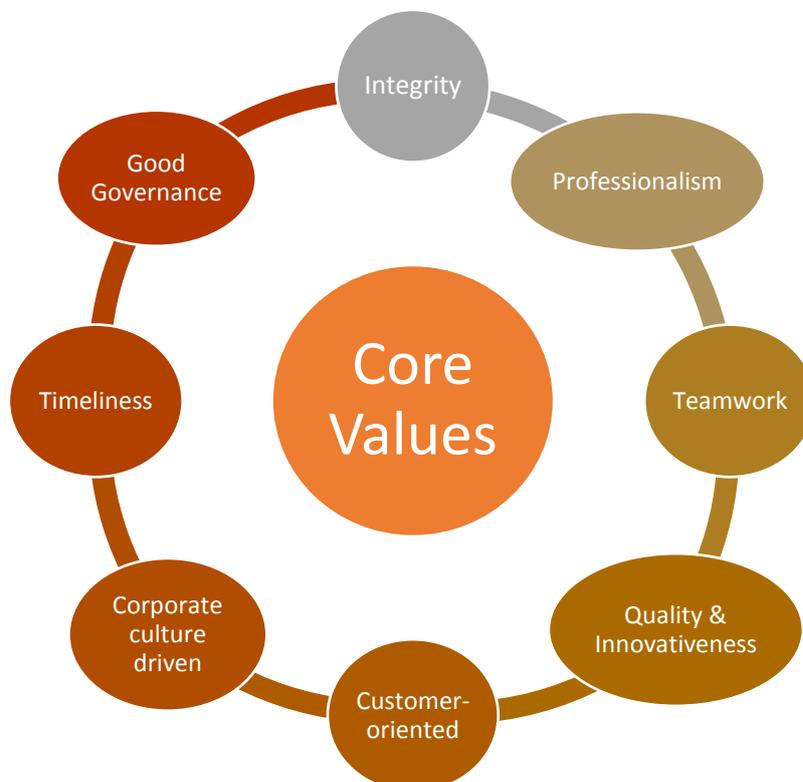
The Ministry is responsible to devise policy relating to development of the Ocean Economy.

It has to ensure that projects are efficiently and effectively implemented with a view to achieving objectives set.

The key objectives are:

- To coordinate the development of economic activities in the ocean industry.
- To promote sustainable development and management of our fisheries through the adoption of an ecosystem approach, and the promotion of aquaculture.
- To 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.
- To develop the shipbuilding/repair industry and promoting the services available.
- To characterise the oceanic and coastal environments of the Republic of Mauritius with a view to ensuring optimal long term exploitation of the resources.

1.4.1 Core Value



1.4.2 Customers

Our customers are the fishers involved in aquaculture projects, the fishers community, the fishing industry, shipping agents, seafarers welfare association, the maritime industry, maritime training academies, oceanography experts, coastal zone users, NGOs, the public and private sectors, researchers, students, international partners/lending institutions and the public at large.

1.4.3 Services Offered

Services offered by the Ministry	Monitoring, Control and Surveillance of Fisheries Resources, Combat illegal, unreported and unregulated fishing.
	Licensing of boats, verification and control of fish and fish products.
	One Stop Shop service to fishing operators, traders, processors, canners and retailers of fish.
	Shipping Navigation, Maritime Safety Administration and Training of Seafarers.
	Mapping of the seafloor through bathymetry maps for shallow and deep sea for characterisation and identification of seafloor structures.

1.5 ABOUT OUR PEOPLE

1.5.1 General Background

The Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping has been set up in line with Government vision to making the ocean economy an important industry to sustain economic diversification, job creation and wealth generation as enunciated in the Government Programme 2015-2019. The Ministry has the vision to be an economic pillar with due regard to sustainability of aquatic resources and social development for the benefit of all stakeholders. It has the responsibility to develop the ocean economy with its 1.0 million square kilometers Exclusive Economic zone. The Ministry has under its portfolio all ocean-related activities and various industries/sectors namely: fishing industry; maritime industry; marine research; and promotion of ocean sector and governance.

1.5.2 The Ministry

1.5.2.1 Workforce

The Ministry has a workforce of 571 employees. The workforce is distributed as follows:

Administration	-	93
Shipping Division	-	44
Mauritius Maritime Training Academy	-	19
Fisheries Development	-	401
Competent Authority	-	14

The functions of the Divisions of the Ministry are summarized as follows:

1.5.2.2 Administration

The Ministry is headed by a Senior Chief Executive assisted by a Permanent Secretary, two Deputy Permanent Secretaries, four Assistant Permanent Secretaries and other Supporting Staff in the following sections:

- (i) Administration Section
- (ii) Finance Section
- (iii) Human Resource
- (iv) Procurement and Supply Unit
- (v) Transport and Accommodation

1.5.3 Viewpoint on the Ocean Economy

With the creation of a new Ministry i.e. Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping, Government's main objectives are inter alia the pooling of all ocean-related activities under one roof and fully optimize the ocean-related resources of Mauritius.

1.5.3.1. Contribution of the Ocean Economy to GDP

The ocean economy has been growing at about half the rate of the economy as a whole (2.5% against 4.1%). The government has formulated the objective of doubling by 2025 the GDP share of the ocean economy (from 11% to 20%).

1.5.3.2. National Ocean Council

As per Government Programme 2015-2019, paragraph 218, page 30, pending the formal presentation in due course of a National Ocean Bill, government has, on 26 June 2015, agreed to set up administratively a National Ocean Council comprising representatives of both the public and private sectors. The objective of the National Ocean Council is to co-ordinate the activities of all stakeholders involved in the ocean economy in an integrated and holistic approach.

1.5.4 Shipping Division

The Shipping Division is the specialised arm of the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping. It is responsible for all maritime safety, maritime security and prevention of pollution of the marine environment from ships and shipping matters. It also acts as the Maritime Administration responsible for the development of maritime activities which include among others: registration of ships, implementation of the Merchant Shipping Act. Survey and Certification of ships and enforcement of international conventions. The staffing structure of the Shipping Division is given in Table 1.1.

Table 1.1: The staffing structure of the Shipping Division

Post	No.
Director of Shipping	1
Deputy Director of Shipping	1
Secretary for Shipping	1
Principal Nautical Surveyor	1
Nautical Surveyor	3
Marine Engineering Surveyor	2
Superintendent of Shipping	1
Assistant Superintendent of Shipping	1
Marine Engineering Inspector	1
Superintendent of Shipping	1
Assistant Superintendent of Shipping	1
Marine Engineering Inspector	1
Nautical Officer	1
Principle Maritime Officer	1
Senior Maritime Officer	1
Maritime Officer	1
Marine Scientist	1
Marine Security Officer	

1.5.5 Mauritius Maritime Training Academy

The MMTA provides sea training for young school leavers and all those who wishes to make career at sea. It has a workforce of 14 employees. The number of officers working in the section is given in Table 1.2.

Table 1.2: Number of officers working in the MMTA

Grade	Posts
Head Mauritius Maritime Training Academy	1
Principal, Mauritius Maritime Training Academy	1
Head, Deck Department	1
Head, Engineering Department	1
Marine Training Officer	3
Instructor, Mechanical Workshop	1
Petty Officer	2
Trainee Petty Officer	2

1.5.6 Fisheries Division

The Fisheries Division is responsible, among others, for management and policy advice on the fisheries sector, as well as for development of near-shore and off-shore fisheries and aquaculture. The Division has a total of 172 funded post headed by the Director of Fisheries and assisted by Assistant Director of Fisheries (3), Divisional Scientific Officer (Fisheries) (8), Scientific Officer/Senior Scientific Officer (Fisheries) (25). Principal Technical Officer (Fisheries) (1), Senior Technical Officer (Fisheries) (8) and Technical Officer (Fisheries) (36).

The Fisheries Protection Service (FPS), which is the enforcement arm of the Ministry, is responsible for the protection and conservation of fishery resources for sustainable development. The Fisheries Protection Service (FPS) has a work force given in Table 1.3.

Table 1.3 Workforce of the FPS

Grade	No. of posts
Controller, Fisheries Protection Service -	1
Deputy Controller of Fisheries Protection Service	3
Assistant Controller of Fisheries Protection Service	8
Principal Fisheries Protection Officer	25
Senior Fisheries Protection Officer	57
Fisheries protection Officer	135

1.5.6.1 Fisheries Training and Extension Centre (FiTEC)

The FiTEC is a training centre for fishers situated at Pointe aux Sables. FiTEC designs, develops and implement training programmes for stakeholders at 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.

1.5.6.2 Albion Fisheries Research Centre (AFRC)

AFRC is responsible in the promotion of sustainable aquaculture development, increasing fish production, enhancing the socio-economic and status of the fishers' community and imparting technical service of fish culture in floating cage to potential farmers. The Centre is also responsible for the conservation and protection of marine bio-diversity and habitats.

1.5.7 Competent Authority - Certification of Sea Food Products for Exports:

The Competent Authority operates under the aegis of the Ministry. It is responsible for the verification and certification of fish and fish products destined for export to member states of the European Union and non-European Union countries. It has also been entrusted the responsibility for the importation and control of fish and fish products for human consumption as well as live aquatic animals meant for farming and ornamental purposes. The staff consists is represented in Table 1.4.

Table 1.4: Staff of the Competent Authority – Seafood

Post	No. in post
Head Competent Authority	1
Senior Veterinary Officer (Competent Authority)	1
Veterinary Officer (Competent Authority)	2
Senior Technical Officer (Competent Authority)	1
Technical Officer (Competent Authority)	5
Supporting staff and General services	5

Table 1.5: Contact details of Senior Staff

SN	Title/Name/Other	Designation	Phone No/Fax No	Email
1	Mrs FONG WENG-POORUN Kan Oye	Senior Chief Executive	Tel (230) 210 7778 (Thro' Conf. Secretary) Ext: 315/360 Fax (230) 211 2457	kofong@govmu.org
2	Mr. BHUGWANT Roodradeo	Permanent Secretary	Tel (230) 211 2455 (Thro' Conf. Secretary) Ext: 316 Fax (230) 211 3407	rbhugwant@govmu.org
3	Dr. BOODHUN Pushpawant	Deputy Permanent Secretary	Tel (230) 210 4594 (Thro' Conf. Secretary) (230) 210 9480 Ext: 319 Fax (230) 208 8480	spboodhun@govmu.org
4	Mr. LABONNE Jean Daniel Philippe	Deputy Permanent Secretary	Tel (230) 2112470 (Thro' Conf. Secretary) Ext: 342/344 Fax: (230) 208 8093	jdplabonne@gmail.com
5	Mr. AMOURDON Rajagopalan S.P	Assistant Permanent Secretary	Tel (230) 211 0074 Ext: 312 Fax: 208 1929	ramourdon@govmu.org
6	Mrs. GUNGADEEN Swaleha	Assistant Permanent Secretary	Tel (230) 211 2459 Ext: 318 Fax: 208 1929	sgungadeen@govmu.org
7	Mr. HUMATH Rajesh	Assistant Permanent Secretary	Tel (230) 213 4259 Ext: 327 Fax: 208 1929	rhumath@govmu.org
8	Mrs EMRITH-RUGHOOBUR Annushmee	Assistant Permanent Secretary	Tel (230) 212 6329 Ext: 321 Fax: 208 1929	aerughoobur@govmu.org

SN	Title/Name/Other	Designation	Phone No/Fax No	Email
HUMAN RESOURCES SECTION				
1	Mr. SEWRAJ Manrekar Dhanrajsing	Manager Human Resources	Tel: (230) 211 5352 Ext: 334 Fax: 208 2356	msewraj@hotmail.com
2	Mrs. MOHIT JULIETTE Sheereemattee	Assistant Manager Human Resources	Tel: (230) 212 4875 Ext: 335 Fax: 208 2356	smohit-juliette@govmu.org
FINANCE SECTION				
1	Mr. DOOMAH Abdool Mannane	Manager, Financial Operations	Tel: (230) 212 4781 Fax: 213 7017	adoomah@govmu.org
2	Mrs. KALLOO Roopwantee	Assistant Manager, Financial Operations	Tel: (230) 213 6040 Fax: 213 7017	rkalloo@govmu.org
SCIENTIFIC/TECHNICAL CADRES				
1	Mr. SOONDRON Sreenivasan	Director of Fisheries	Tel (230) 208 7989 Fax: 213 7157	ssoondron@gmail.com
2	Mr. NORUNGEE Devanand	Assistant Director (Fisheries)	Tel (230) 208 7997 Fax: 213 7157	dnorungee@gmail.com
3	Mrs. BASANT RAI Yajoshi	Assistant Director (Fisheries)	Tel (230) 234 6858 Fax: 234 6967	ybasant-rai@govmu.org
4	Mrs. HURBUNGS Mira Devi	Assistant Director (Fisheries)	Tel (230) 238 4100 Fax: 238 4184	mhurbungs@govmu.org
FISHERIES PROTECTION SERVICE				
1	Mr. IBRAHIM Sheik Abdool Ganny	Controller Fisheries Protection Service	Tel (230) 208 7961 Ext: 355 Fax: 208 7958	saibrahim@govmu.org
2	Mr. BUNDHOO Brambhanand	Deputy Controller Fisheries Protection Service	Tel (230) 208 7961 Ext: 354 Fax: 208 7958	

SN	Title/Name/Other	Designation	Phone No/Fax No	Email
3	Mr. BANDHOO Karamchand	Deputy Controller Fisheries Protection Service	Tel (230) 208 7961 Fax: 208 7958	
4	Mr. ANNAMALAY	Deputy Controller Fisheries Protection Service	Tel (230) 208 7961 Fax: 208 7958	
SHIPPING DIVISION				
1	Mr. DONAT Louis Alain Enrico	Director of Shipping	Tel (230) 213 6968 Fax: 213 7013	ldonat@govmu.org
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3	Capt. COOPEN Asiva	Deputy Director of Shipping	Tel (230) 260 0024 Ext: 203	acoopen@govmu.org
MAURITUS MARITIME TRAINING ACADEMY				
1	Dr. BABOOA Sanjiv Kumar	Head, MMTA	Tel: (230) 2342008 Fax: 2342017	mmta@govmu.org
2	Mr. MOORGHEN Marday Armoogum	Principal MMTA	Tel (230) 234 2015 Fax: 234 2017	mmoorghen@govmu.org
COMPETENT AUTHORITY				
1	Dr. GROODOYAL Vidya Bhushan	Ag. Officer in Charge Competent Authority	Tel (230) 206 2804 Fax: 216 2293	vgroodoyal@govmu.org

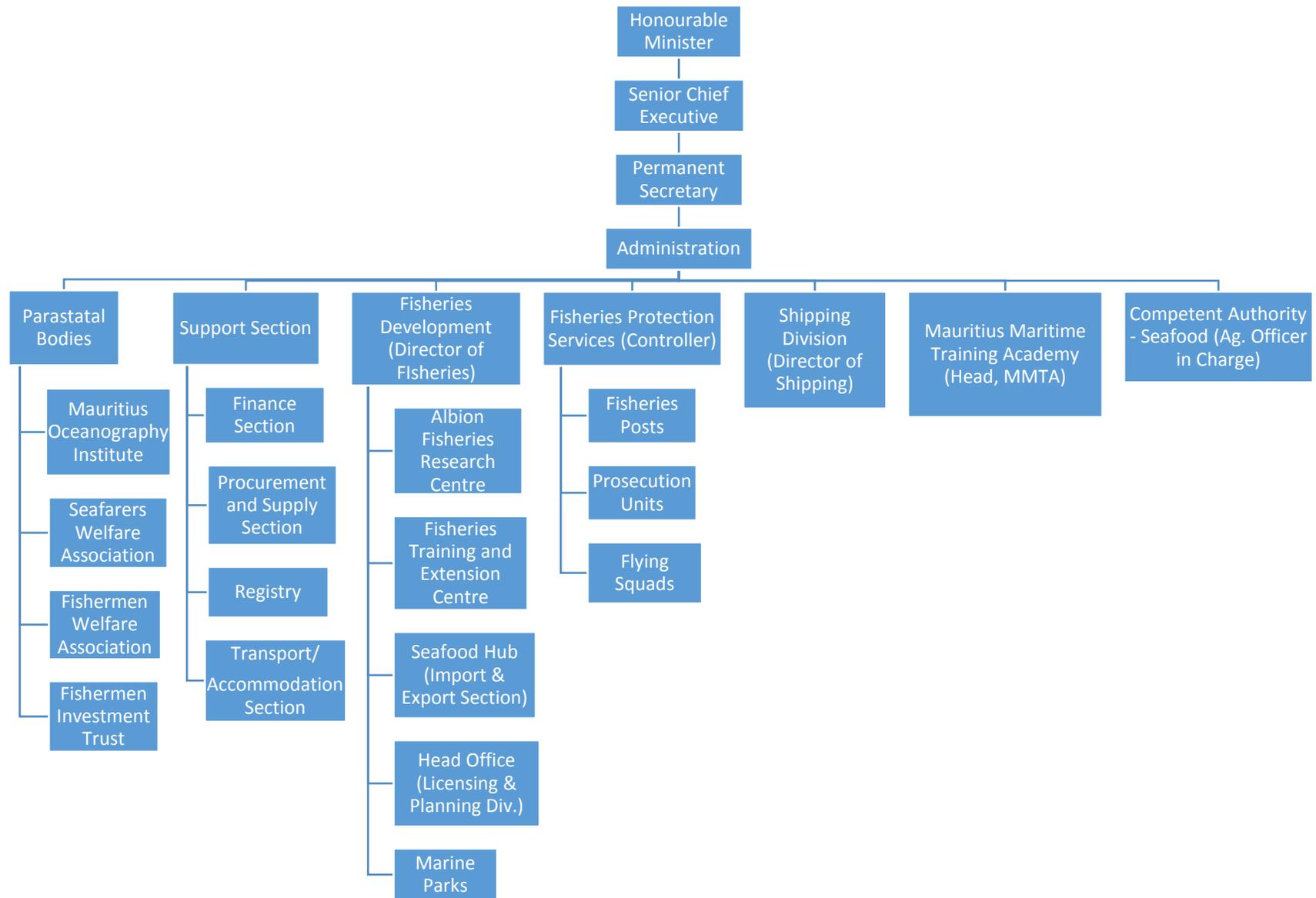


Figure 1.1: The organigram of the Ministry

1.5.8 Reform Cell

The Ministry has constituted a Reform Cell and the DPS (Human Resource) is the Chairperson and comprising 15 members representing all the different Unit/Sections/ Divisions of the Ministry.

Issues taken up at the Committee:

- Performance Management System
- Human Resource Management Information System
- Electronic Attendance System
- ISO Certification
- Modernisation of Services
- Occupational Safety and Health
- Development of HR Plan
- Sectional Reforms
- Good Governance and Ethics

1.5.9 Scarcity Areas

The Ministry is encountering much difficulties in filling of vacancies in certain grades as these fall under the category of scarcity areas. Details of grades falling under scarcity areas are given in Table 1.7.

Table 1.7: Details of grades falling under scarcity areas

SN	Division/Unit/ Section	Grade
1		Principal Marine Engineering Surveyor
2	Shipping	Marine Engineering Surveyor
3		Nautical Surveyor
4		Head, Deck Department
5	Mauritius Maritime Training Academy	Head, Engineering Department
6		Marine Training Officer
7		Petty Officer
8		Fishing Boat Inspector (Engineering)
9		Fishing Boat Inspector (Nautical)
10	Fisheries Development	Skipper
11		Second Hand Fishing (Limited)
12		Deckhand/Fisherman
13		Motorman/Engine Driver

In fact, there is a dearth of qualified candidates on the labour market for the Maritime sector and this is a worldwide phenomenon. Mauritius being a small island, is facing much constraints in this area, the moreso, 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) revising of existing schemes; and
- b) having recourse to contract employment.

1.5.10 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.

Training:

- a) Number of officers following **overseas training** during financial year 2016-2017 – **49**
- b) Number of officers following **local training** during financial year 2016- 2017 – **37**

2.1. MAJOR ACHIEVEMENTS

For FY 2016/17:

- In 2016, 8 fishermen had benefited from the “Canotte” scheme. A fisherman is eligible to a grant representing 50% of the cost of a “Canotte” and engine up to an amount of Rs. 200,000 per “Canotte”.
- Under the semi- industrial scheme, a grant of 50 percent, up to a cap of Rs. 4 million is being provided to enable fisheries cooperatives to acquire semi-industrial fishing vessels. Three 5 Letter of Intents were issued to 5 Fishermen Cooperative Societies.
- In addition, thirty-two (32) promoters have been issued a Letter of Intent to undertake fishing activities.
- A new reciprocal Fishing Agreement between Mauritius and Seychelles for fishing in Seychelles and Mauritius waters has been successfully concluded and signed in the Republic of Seychelles on 20 February 2017. Ratification from the Seychelles side is being awaited.
- The 3rd Round of Negotiation for the renewal of the Fisheries Partnership Protocol and Joint Committee meeting with EU was successfully concluded in Mauritius from 24 to 26 April 2017. The new Protocol is of duration of 4 years from the date of provisional application. The total financial contribution is € 2 300 000 comprising of an annual access fee of € 220 000 equivalent to a reference tonnage of 4000 tonnes per year, € 220 000 for the support and implementation of Mauritius’s sectoral fisheries policy and an additional € 135 000 to support the development of maritime policy and ocean economy.
- Since January 2013, Mauritius benefits from the automatic derogation with the implementation of the iEPA which entered into force in 2012. Under the iEPA, Mauritius is benefitting from an automatic derogation for a quota of 3000 tonnes of preserved tuna and 750 tonnes of tuna loins.
- 1,381 candidates have been trained at the Mauritius Maritime Training Academy
- 5 new Post Graduations Scholarship are provided by the Fishermen Welfare Fund to 3 children of fishers in Mauritius and 2 in Rodrigues.
- Salvage Operation of MV Benita has been concluded successfully by the Shipping Division. The Laboratories Division of the Fisheries Development conducted tests for seawater quality, sediment and biota at Le Bouchon to assess the impact of the oil spill caused by the grounding of MV Benita.
- 10 floating cages of 12m diameter have been allocated to prospective Fishermen Associations/Cooperative Societies for artisanal aquaculture.
- 10 000 camaron juveniles were produced and sold to private fish farmers.
- Closure of the octopus season for three months, from 15 August 2016 to 15 October 2016, for the first time in Mauritius. This closure has yielded conclusive results in terms of quality and quantity of octopus catch after the re-opening.
- Accreditation of the Marine Chemistry Laboratory has been maintained and the Marine Microbiology Laboratory has been accredited to MS ISO/IEC 17025 Standard by the Mauritius Accreditation Services (MAURITAS).

- Seventy-two and three tenths percent (72.3 %) of fish aggregating devices (FADs) are active.
- The Mauritius Oceanography Institute has characterized about 50% of earmarked aquaculture sites around Mauritius.
- A total of 800 tonnes of aquaculture products have been exported in 2016 compared to 423 tonnes in 2015.
- 195 fishing licences were issued
- 375 contraventions out of which 84 are for prosecution for court and 82 court cases established by FPS
- 67 fishing boats (less than 24 m) were registered.
- 145 vessels more than 24 m were registered in 2016.
- 477 Departure Clearances were issued to local boats/vessels at Port.
- 1,190 Continuous Discharge Certificates were issued:
- 322 vessels mainly longliners were inspected at Port by the Fisheries Division.
- Fisheries Posts were upgraded at Riambel, Poudre d'Or and Grand Gaube.

2.2. STATUS ON IMPLEMENTATION OF BUDGET MEASURES FOR FINANCIAL YEAR 2016/2017

A series of budgetary measures under the financial year 2016/17 have been implemented by the Ministry. Details of the status of implementation of budgetary measures are given in Table 2.1.

Table 2.1: Status of implementation of budgetary measures

Para in Budget Speech including Annex	Budget Measure	Status
44	Seafarers will be exempted from the payment of income tax	Implemented under Budget 2016/17
23	Provision for the training of 1,200 seafarers for cruise jobs and in shipping companies.	100% achieved
125	Mauritius Maritime Training Academy to increase its intake by 50 percent to 1,200 trainees annually.	1,381 Students Trained.
117	The Mauritius Oceanography Institute to fully survey the 31 sites which have been identified for aquaculture development	Oceanographic data of around 8 sites are available
118	Provision of incentives for the setting up of common facilities on land for aquaculture and fish processing.	Delays in implementation of this project is occurring as a result of delays at the level of the Ministry of Housing and Lands in vesting of State land in this Ministry.
120	Signature of MoU with the National Institute of Oceanography Goa for the setting up of a World Class Research Institute of Oceanography in Mauritius.	Signed in May 2017
121	Encouraging outer-reef and bank fishing <ul style="list-style-type: none"> • Provision of Rs 20 million for the purchase of a multi-purpose vessel for research, surveys and training of fishermen and skippers. • Grant of 50 percent, up to a cap of Rs 4 million will be given to cooperative societies to enable them to acquire semi-industrial vessels. 	Project ongoing <p>Approval of the High Powered Committee has been sought on 11 December 2017 to approve increase in cost of the Multi-Purpose Vessel from AUD 1, 573, 525 to AUD 1, 686, 111</p> <p>Letters of Intent Issued to 5 Beneficiaries.</p>

123	To promote small-scale aquaculture, a provision of Rs 12.5 million for the purchase of 10 floating cage structures to allocate to Fishermen Cooperatives.	By December 2016, 10 floating cages were already allocated to 10 fishermen cooperatives/association.
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2.2.1 Purchase of “Canottes”

Under the scheme, a registered fisherman is eligible for a grant representing 50% of the cost of a “Canotte” and engine up to a maximum amount of Rs200, 000 for a “Canotte”.

Status: An expression of interest for new applications was launched and 11 applications were received. A Memorandum of Understanding will shortly be signed between this Ministry and DBM Ltd. for implementation of the scheme.

2.2.2. Purchase of semi-industrial fishing boats

Under the scheme, a registered fisherman Cooperative Society is eligible for a grant of 50 percent, up to a cap of Rs 4 million will be given to cooperative societies to enable them to acquire semi-industrial vessels.

Status: An expression of interest was launched and 11 applications were received in 2017. 5 fisheries cooperatives have been issued a Letter of Intent. A Memorandum of Understanding will shortly be signed between this Ministry and Maubank Ltd. for implementation of the scheme and an EOI will be launched for more applications.

2.2.3. Aquaculture

To promote small-scale aquaculture, a provision of Rs 12.5 million has been made in the Budget for the purchase of 10 floating cage structures to allocate to Fishermen Cooperatives.

Status: Ten floating cages have been allocated to ten Fishermen Cooperative Societies for fish culture in the lagoon namely at: Grande Riviere Sud Est, Quatre Soeurs, Bambous Virieux, Grand Gaube & Poudre D'Or. Cordonier fingerlings are given free of charge for culture in the cages and the activities are being monitored.

2.3. STATUS ON IMPLEMENTATION OF KEY ACTIONS

Key Action	Key Performance Indicator	Target 2016/17	Achievements as at 30 June 2017
An average of 75% of Fish Aggregating Devices to be kept active for the benefit of fishermen	Average percentage of Fish Aggregating Devices kept active	75%	Average of 72.3% FADs are active
Increased capacity building for Skippers, fishmongers and increased number of candidates trained at the Mauritius Maritime Training Academy	1. Number of skippers (of boats between 12m and 24m long) trained	25	17 out of 25 trainees successfully completed the training course
	2. Number of fishmongers trained in Fish Handling, Preservation and Marketing	50	85 Fishmongers trained
	3. Number of trainees at the Mauritius Maritime Training Academy	1,200	1,381 students trained
Private promoters will be allocated fish farming sites for the development of large-scale aquaculture	Number of fish farming sites to be allocated to promoters	5	18 Sites have been allocated to private promoters
Proclamation of regulations regarding standards of construction and survey of vessels by mid-2017 to promote the Mauritius Ship Registry as an internationally reputable quality ship registry	Number of regulations regarding standards of construction and survey of vessels proclaimed	29	7 Regulations approved and gazetted
Preparation of sea-based maps with all the necessary data (biological, chemical, physical and ecological) that investors would require in order to develop any marine related activities in Mauritius	Percentage area surveyed covered by Geographical Information System maps	Mauritius: 20%	18.6 % completed. (13 sites Survey at GRSE and Trou aux Biches. This means that 93% of the target has been achieved.)
Fish farming undertaken by Fishermen cooperatives/associations for small-scale aquaculture	41, 700 fingerlings under culture in the ten floating cages	10 floating cages set at sea	Culture ongoing
Training of fishmongers in Fish handling, preservation and marketing	Number of fishmongers trained in Fish handling, preservation and marketing	100	85 fishmongers were trained

Table 2.2: Status of implementation of key actions

2.4. RISK MANAGEMENT, CITIZEN ORIENTED INITIATIVES & GOOD GOVERNANCE

2.4.1. Audit Report

The National Audit Office submitted its Audit Report, for the 18-month period of 1 January 2015 to 30 June 2016, outlining its findings on the Ministry. The issues raised are being attended.

2.4.2. List of Events hosted by Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping

- Workshop on International Convention for the Control of Harmful Anti-Fouling Systems on Ships and Guidelines for the Control and Management of Ship's Bio-fouling
- Workshop on SOLAS Verified Gross Mass
- Workshop on Particularly Sensitive Sea Areas
- Day of the Seafarer
- Third IORA Blue Economy Core Group Workshop on " Environmental Sustainability and the Blue Economy in the Indian Ocean region"
- SIOFA Fourth Meeting of Parties and the First Compliance Committee Meeting
- African Ministerial Conference on Ocean Economy and Climate Change

2.4.3. Staff Welfare

This Ministry has a welfare association known as the Fisheries Staff Welfare Association (FSWA).

It was founded in the year 1996 and as to date has 182 members.

The objective of the association is

- (i) To create an 'esprit de corps' among its own members and those of other organisations and
- (ii) To organise sports, cultural, recreational and educational activities for the welfare of its members
- (iii) To support members in moments of joy and stress

The association organises outings for members and their families, offers gifts to new born babies of members, offers prizes and shields to students who have successfully passed their Certificate of Primary education, School Certificate and Higher School Certificate, promoted staffs are offered shield, retired members are offered prizes, shields and certificate, upon decease of a member, his family is offered Rs 2000. The association also purchases necessary equipment for members to be used at their place of work such as electric fans, kitchen utensils, microwave, electric kettles, stoves, TV and radio sets.

The association takes part in the annual kemesse organised by the Public Officers Welfare Council and raises funds for the welfare activities for the benefit of its members.

2.4.4. Health, Safety and Welfare of Staff

It is the policy of the Ministry to put in place a well-defined system to look after the health, safety and welfare of staff. In this respect an Occupational, Safety and Health Committee has been set up. The Committee is headed by a Deputy Permanent Secretary and has Officers-in-Charge of sections, representatives of trade unions and a Safety and Health officer from Ministry of Civil Service and Administrative Reforms as members.

A Safety and Health officer from Ministry of Civil Service and Administrative Reforms is posted at this Ministry on a part-time basis (once weekly).

The Occupational, Safety and Health Committee meets at regular interval to look at related problems, bring solutions, reduce the problems or remedy the situation.

3.1 Financial Highlights

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

- 23-101-Ocean Economy, Marine Resources and Shipping
- 23-201-Fisheries

Appropriation of funds is made under these votes.

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

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

3.1.1. Revenue 2015-2016, 2016-2017 (Actual)

Table 3.1 gives details of revenue collected by the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping in 2016-2017.

Table 3.1: Revenue collected by the Ministry

SN	Statement of Revenue			
	Revenue (Rs.)	2015-2016 Actual	2016-2017 Estimates	2016-2017 Actual
1	Revenue (Rs.)			
2	Fish Vessel License	52,334,000	53,000,000	58,334,688
3	Shipping Fees	7,997,000	8,600,000	8,232,533
4	Fisheries Fees	24,501,000	12,000,000	7,200,000
5	Sale of Product	901,000	955,000	170,852
6	Miscellaneous (Fisheries)	5,154,000	5,300,000	5,158,930
7	Miscellaneous (Shipping)	7,500,000	7,500,000	6,090,961
	Total	98,387,000	87,355,000	85,187,964

Note:

1. Increase in fish vessel license was noted due to the fact that payment is computed on US Dollar. There has been an increase of 18% on exchange rate from 2015-2016 to 2016-2017.
2. Decrease in fisheries fees due to the fact that revenue in respect of fishing access rights of Rs. 13 M was received in 2015-2016 only and nil amount in 2016-2017.
3. Sale of product has decrease as same has been left to the private sector to sell sea products.

The Actual Revenue for the periods 2015 – 2016 and 2016 – 2017 is represented in Figure 3.1.

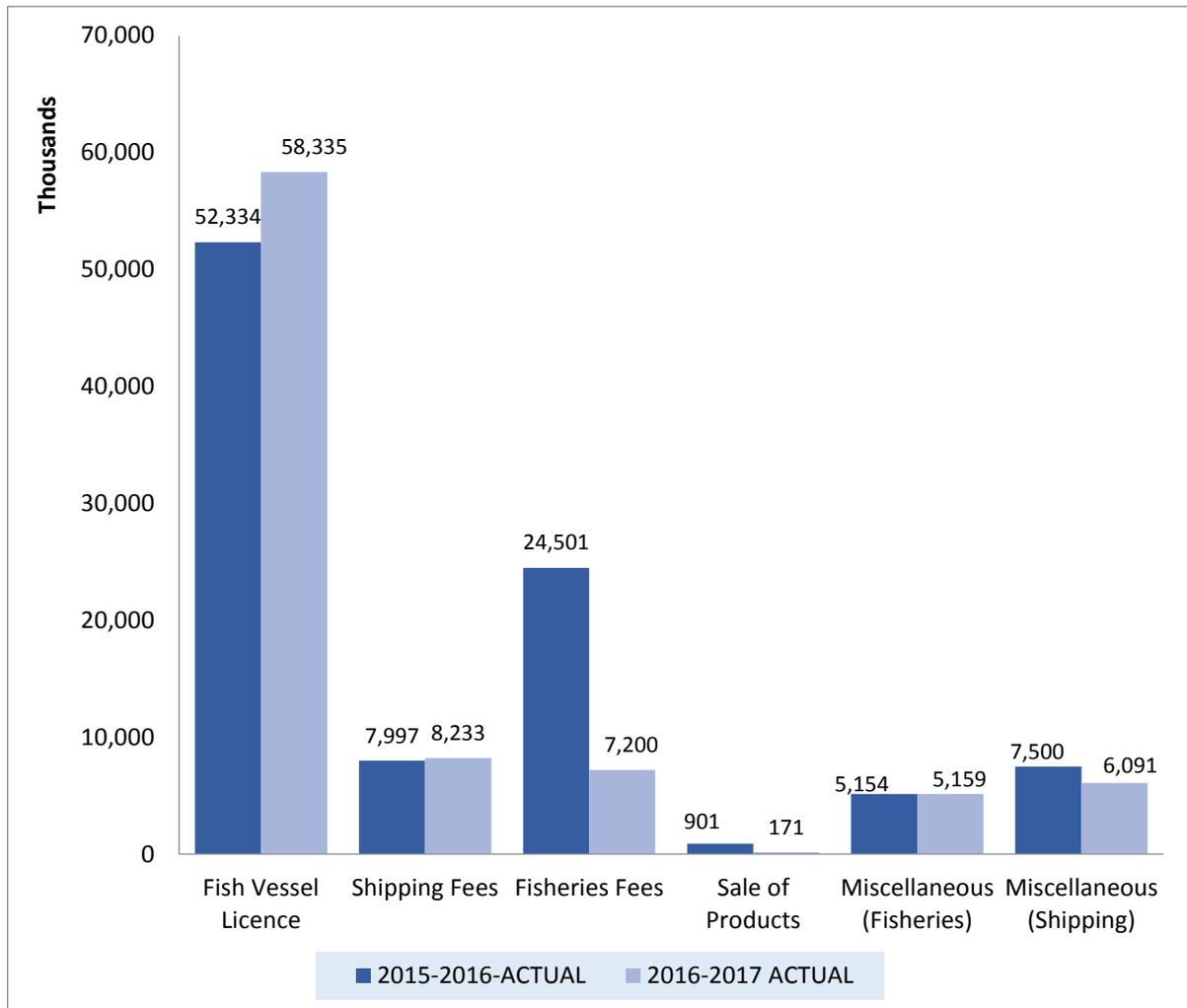


Figure 3.1: Actual Revenue for the periods 2015 – 2016 and 2016 – 2017

A breakdown of the revenue collections by Shipping and Fisheries Divisions is produced under each department financial analysis section.

3.1.2. Statement of Expenditure

The statement of expenditure is given in Table 3.2.

Table 3.2: Statement of expenditure

SN	Head/Sub-Head of Expenditure (Rs.)	2015-2016 Actual	2016-2017 Estimates	2016-2017 Actual
1	Compensation Of Employees	222,848,000	253,911,000	237,667,015
2	Goods And Services	89,988,000	136,011,000	106,222,226
3	Subsidies	514,000	600,000	473,250
4	Grants	172,912,000	104,768,000	117,055,548
5	Social Benefits	0	10,000	0
6	Other Expenses	78,514,000	92,900,000	75,277,851
7	Acquisition of Non Financial Assets	14,827,000	57,900,000	13,225,845
	Total	579,603,000	646,100,000	549,921,735

Note:

1. Compensation of employees has increased due to payment of PRB Report 2016 effective as from 01.01.2016
2. Increase in cost of goods and services due to shipping Dept. transferred from MPI TO THIS Ministry
3. Decrease in grants due to transfer of Outer Island Development Authority from this Ministry to Local Government
4. No major changes noted as most capital project has not been finalised.

Figure 3.2 shows the Actual Expenditure for the year 2016-2017.

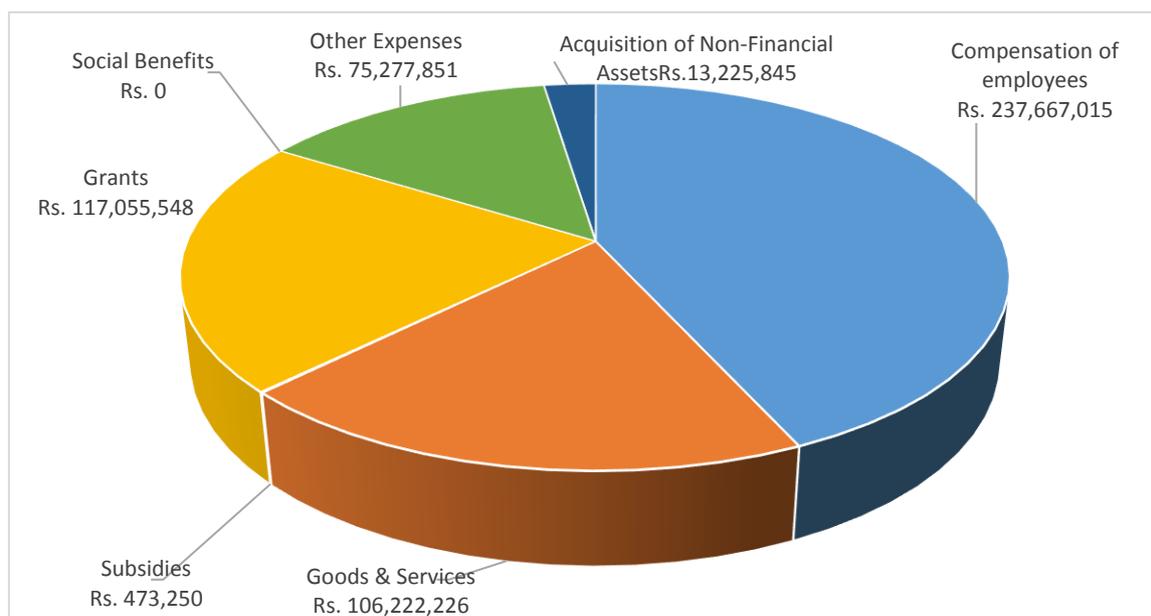


Figure 3.2 shows the Actual Expenditure for the year 2016-2017.

Note:

Grants in respect of Outer Island has been excluded for comparison purposes as this provision falls under the Ministry of Local Government as from January 2017.

A breakdown of expenditure for vote 23-101-Ocean Economy, Marine Resources and Shipping and for vote 23-201-Fisheries is produced in the analysis section of the respective votes.

3.1.3. Statement of Revenue - Vote 23-101-Ocean Economy, Marine Resources and Shipping

Table 3.3 gives the statement of revenue with regard to Vote 23-101.

Table 3.3: Statement of revenue for Vote 23-101

SN	Statement of Revenue			
	Revenue (Rs)	2015-2016-Actual	2016-2017 Estimates	2016-2017 Actual
1	Shipping Fees	7,997,000	8,600,000	8,232,533
2	Miscellaneous (Shipping)	7,500,000	7,500,000	6,090,961
	Total	15,497,000	16,100,000	14,323,494

3.1.4. Statement of Expenditure – Vote 23-101-Ocean Economy, Marine Resources and Shipping

Table 3.4 gives details of the statement of expenditure.

Table 3.4: Statement of expenditure for Vote 23-101

SN	Head/Sub-Head of Expenditure-Rs.	2015-2016 Actual	2016-2017 Estimates	2016-2017 Actual
1	Compensation of Employees	68,761,000	74,977,000	69,189,538
2	Goods and Services	52,765,000	56,775,000	48,076,940
3	Subsidies	514,000	600,000	473,250
4	Recurrent Grants	35,745,000	49,938,000	49,938,000
5	Capital Grants		44,700,000	16,000,000
6	Social Benefits		10,000	
7	Other Expenses	72,889,000	75,300,000	75,277,850
8	Acquisition of Non Financial Assets	130,839,000	13,800,000	9,503,300
	Total	361,513,000	316,100,000	268,458,878

Note: Capital Project in respect of construction of MOI building completed.

3.1.5. Statement of Revenue - Vote 23-201-Fisheries

Table 3.5 gives the statement of revenue with regard to Vote 23-201-Fisheries.

Table 3.5: Statement of revenue for Vote 23-201

SN	Statement Of Revenue			
	Revenue (Rs.)	2015-2016 Actual	2016-2017 Estimates	2016-2017 Actual
1	Fish Vessel License	52,334,000	53,000,000	58,334,688
2	Fisheries Fees	24,501,000	12,000,000	7,200,000
3	Sale of Product	901,000	955,000	170,852
4	Miscellaneous (Fisheries)	5,154,000	5,300,000	5,158,930
	Total	82,890,000	71,255,000	70,864,470

Note:

1. Increase in fish vessel license due to the fact that payment is computed on US\$. There has been an increase of 18% on exchange rate from 2015-2016 to 2016-2017.
2. Decrease in fisheries fees due to the fact that revenue in respect of fishing access rights of Rs. 13.m was received in 2015-2016 only and nil amount in 2016-2017.
3. Sale of product has decrease as same has been left to the private to sell sea products.

3.1.6. Statement of Expenditure – Vote 23-201-Fisheries

Table 3.6 gives the statement of expenditure with regard to Vote 23-201.

Table 3.6: Statement of expenditure for Vote 23-201

SN	Head/Sub-Head of Expenditure-Rs.	2015-2016 Actual	2016-2017 Estimates	2016-2017 Actual
1	Compensation of Employees	161,747,000	178,934,000	168,447,432
2	Goods And Services	41,713,000	79,236,000	58,145,286
3	Subsidies	0	0	0
4	Grants	7,750,000	10,130,000	7,588,805
5	Social Benefits	0	0	0
6	Other Expenses	5,625,000	17,600,000	1,408,528
7	Acquisition of Non Financial Assets	5,722,000	44,100,000	8,714,566
	Total	222,557,000	330,000,000	244,304,617

3.2. ANALYSIS OF MAJOR CHANGES

3.2.1. Revenue

Trend analysis of revenue and expenditure for Financial Year 2015-2016 and 2016-2017 shows no pronounced changes in either revenue collection and on expenditure trend. Fish vessel license, Fisheries fees and Miscellaneous fisheries fees represent 83 % of total revenue collected and the remaining 17% are collected in respect of Shipping fees. Fish vessel license is the major component of revenue with 53% share.

In 2016-2017, the same tendency has been noted in 206/2017 with 83% revenue collected under the Fisheries Division and 17% for the Shipping Division. Fish Vessel licence has remained the main component of Revenue for Ocean Economy. Fish Vessel License represents 68% of total revenue collected in 2016/2017 i.e. an increase of 15% and a corresponding decrease of 15% in the collection of Fisheries Fees. This is explained by the fact that a one off payment of Rs 13.m was received in 2015-2016.

3.2.2. Expenditure

In 2015-2016 ,38% of expenditure under Vote 23101-General was incurred under Compensation of Employees,15% under Goods and Services,32 % under Subsidies and Grant ,13% under Other Expenses and the remaining 2% under Acquisition of non-financial assets. However, this tendency has slightly changed in 2016-2017 where 43 % of expenditure has been incurred under Compensation of Employees, 19% under Goods and Services, 21% for Subsidies and Grants, 13% under Other Expenses and 2% only for Acquisition of non-financial assets.

Increase in payment of Compensation of Employees is mainly due to payment of PRB report in January 2017 and decrease in Subsidies and Grants resulted as Grant in respect of capital project for Mauritius Oceanic Institute was near completion.

4.1. SHIPPING DIVISION

4.1.1. Roles and Functions of the Shipping Division

The Shipping Division is the specialised arm of the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping responsible for all Maritime Safety, Maritime Security, and Prevention of Pollution of the Marine Environment 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 internationally agreed standards;
- Flag State Surveys - Conducting safety surveys and inspections on Mauritius Ships;
- Port State Control Inspection - Inspection of foreign flagged ships calling 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 (GMDSS Station) and Overseeing services provided by the organizations 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;
- Collecting statistical data and conducting trend analysis.

4.1.2. ISO Certification of the Shipping Division

Mauritius is a party to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, as amended. Amendments to the Convention came into force on 1 February 1997 and require member States to have a quality system in place covering all activities related training, assessment of competence, certification, endorsement and revalidation as per Regulation I/8 (Quality Standards) of the Convention, and Section A-I/8 of the STCW Code.

The Shipping Division has been awarded Quality Management System certification under ISO 9001:2000 on 02 February 2006 and under ISO 9001:2008 on 3 March 2009 by the Mauritius Standards Bureau (MSB) respectively, and is on the International Maritime Organization STCW White List.

Following the recertification in 2015, the Shipping Division has successfully passed the first Surveillance Audit conducted on 29 April 2016 by the Mauritius Standards Bureau (MAB).

The new ISO 9001:2015 standards will enter into force in September 2018 and the new standards should be implemented in the Shipping Division by March 2018 prior to the external audit to be conducted by the Mauritius Standards Bureau.

4.1.2.1. Quality Policy

- Strive for safer and secure ships
- Strive for employee satisfaction
- Strive for environmentally friendly and cleaner seas
- Comply with all international agreed standards
- Provide services of highest standards
- Strive for continuous improvement

4.1.2.2. Quality Objectives

- To ensure that Mauritian Seafarers meet the highest possible standard of competence as specified in the STCW Convention;
- To ensure the authenticity of certificates of competency issued by Foreign Administrations to seafarers working on Mauritian vessels;
- Certification and Training of Seafarers: To provide familiarisation, short courses and Rating trainings, examination and certification according to requirements of the STCW Convention;
- Registration of Ships: Delivery of provisional certificate of registry within 3 days, if all documents submitted are in order.
- Delivery of permanent certificate of registry as soon as all required survey documents are submitted.
- Inquiries into casualties affecting ships: Report of preliminary inquiry completed within 7 days after completion of inquiry.
- Engagement of crew: Within 2 days
- Port State Control Inspection: All processes completed within 2 days
- Survey and certification of fishing and non-convention size vessels: All processes completed as soon as possible, if vessel is seaworthy;
- Approval and Monitoring of Maritime Training Institutions/Courses: All processes to be completed within one month if applicant has submitted all valid and required documents.

4.1.3. Organisational Structure

The organisation structure of the Shipping Division is shown in Figure 4.1.

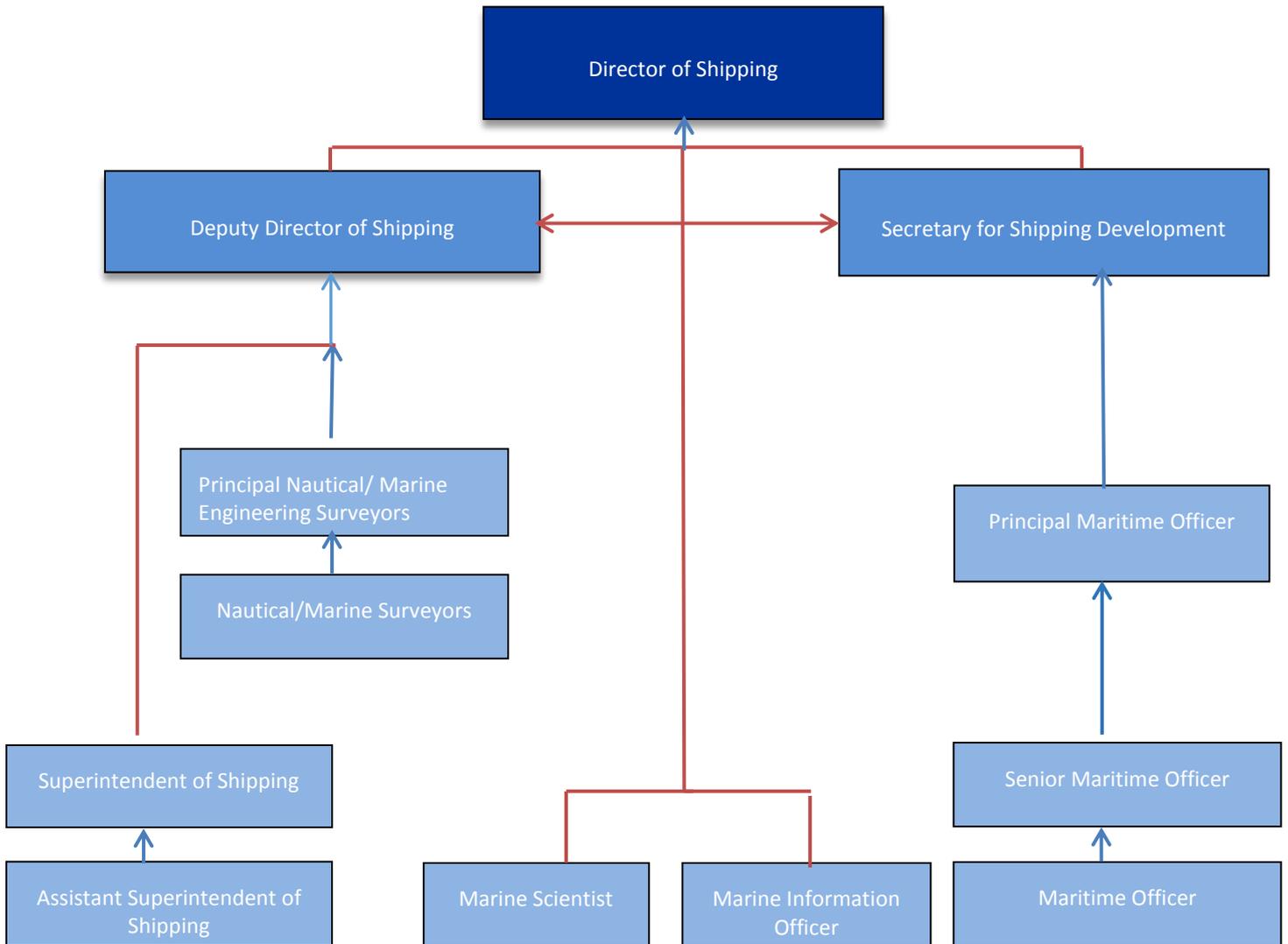


Figure 4.1: The organisation structure of the Shipping Division

4.1.4. Shipping Division Staff

Contact details of the staff of the Shipping Division is given in Table 4.1.

Table 4.1: Contact details of the staff of the Shipping Division

SN	TITLE	CONTACT DETAILS
1.	Director of Shipping	Mr Louis Alain Enrico DONAT Phone: (230) 213 6968 Fax : (230) 213 7013 Email : ldonat@govmu.org
2.	Secretary for Shipping Development	Mrs Kiran SHAMLOLL Phone: (230) 213 7498 Fax : (230) 213 7013 Email : kshamlooll@govmu.org
3.	Deputy Director of Shipping	Capt. Asiva COOPEN Phone: (230) 260 0024 Ext: 203 Email : acoopen@govmu.org
4.	Principal Maritime Officer	Mr Veganaden MAUNIKUM Phone: (230) 213 7012 Fax : (230) 213 7013 Email : vmaunikum@govmu.org
5.	Principal Nautical Surveyor	Capt. Jean Hubert NOEL Phone: (230) 260 0024 Ext: 204 Email : hnoel@govmu.org
6.	Superintendent of Shipping	Mrs Nivedita Malliga HOSANEE Phone: (230) 260 0024 Ext: 208 Email : nhosanee@govmu.org
7.	Senior Maritime Officer	Mrs Meenaksi BHIRUGNATH-BHOOKHUN Phone: (230) 213 7988 Fax : (230) 213 7013 Email : mbhirugnath@govmu.org
8.	Maritime Officer	Mrs Parvatee SOHATEE-TULLOO Phone: (230) 213 6032 Fax : (230) 213 7013 Email : psohatee@govmu.org
9.	Assistant Superintendent of Shipping	Ms Anouska KISHTOO Phone: (230) 260 0024 Ext: 207 Email : akishtoo@govmu.org
10.	Marine Information Officer	Dr Muhammad Z. LALLMAHOMED Phone: 213 5600 Fax: (230) 21307013 Email : zilallmahomed@govmu.org

4.1.5. Achievements of the Shipping Division

4.1.5.1. Salvage Operation of M/V Benita

Successful salvage operation of MV Benita which was refloated on 22 July 2016, thus preventing an environmental catastrophe.

- MV Benita, a Liberian flagged vessel of 24,953 GT grounded off the South-East coast of Mauritius at Le Bouchon on its trip from India to Durban with a crew of 22 Philipinos on 17 June 2016. Figure 4.2 shows the M/V Benita in the South-East coast of Mauritius.



Figure 4.2: MV Benita in the South-East coast of Mauritius

- Total fuel/oil removed prior the refloating operation was 157 tons fuel, 39 tons gasoil and 19 tons lube oil;

4.1.5.2. Verified Gross Mass of Packed Containers

Implementation of amendments to Chapter VI, Part A, Regulation 2, of the International Convention for the Safety of Life at Sea (SOLAS) to ensure that that every container which is exported has a Verified Gross Mass (VGM).

The main purpose of the Verified Gross Mass (VGM) regulation is to obtain an accurate gross weight of packed containers so that vessels and terminal operators can put together vessel loading and stowage plans BEFORE loading cargo containers on ships. This requirement will protect vessel and terminal operators' personnel and equipment as well as the shippers' cargo.

The declaration of the accurate gross mass of a packed container is critical to maritime safety. This is an important safety measure, which is aimed at saving lives and preventing injury and the destruction of property has entered into force on 1 July 2016.

With new developments in Mauritius and the Indian Ocean region, Maritime Traffic has increased tremendously. In 2016, the Port has handled 388,554 containers and it is important to ensure safety of the ships, safety of workers and the safety of the cargo.

Measures undertaken by the Shipping Division to implement this requirement:

- Consultations with all stakeholders to set in place the methodology for compliance with the SOLAS amendments;
- Under Method 1 - Registration of **16** Service Providers and **59** Shippers for weight verification of containers under the SOLAS Convention and calculation of VGM through the weighing method (Method 1);
- Under Method 2 - Registration of **6** Service Providers and **25** Shippers for calculation of VGM of packed containers through calculation method;
- Draft Merchant Shipping Regulations (Weight Verification of Containers) 2017 have been prepared and are presently being vetted by the State Law Office.

4.1.5.3. Sensitisation Campaign in Secondary Schools

Conduct of sensitisation campaign to create awareness on job opportunities and career prospects in the maritime industry amongst secondary school students.

- With the view to sensitise the young generation of the career prospects/opportunities available at sea and encourage youngsters to embrace a maritime career, this Ministry has embarked on a sensitisation campaign which targeted secondary schools students;
- Presentations highlight the career/job opportunities available on different types of vessels, the different career paths at sea and ashore, courses to be followed and the positive and negative aspects of working on board ships.
- From January to June 2017, a team of **11** resource persons have conducted the sensitisation campaign in **115** secondary schools attended by total of **7,028** students.

4.1.5.4. Shipping Division Computerised Information System (SDCIS)

In line with the vision 2030 of the Government to leverage on the asset base of the Ocean industry, the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping has embarked on a challenging project to modernise its current services provided shipping operators through the Shipping Division Computerised Information System (SDCIS).

- Government aims to tap into 3000 ships that pass by Mauritius annually and to provide them with bunkering and other related services. The SDCIS has been developed in order to improve the performance and quality of services delivered to shipping operators. The system spans over 3 Offices and consists of 20 modules.

Registration of Ships and Issue of Port Clearance

- The SDCIS is expected reduce the time taken for registration of ships and allow for a timely provision of outward port clearance certificate and payment thereof through a wallet system.

Improve Service Delivery

- The SDCIS will improve the delivery of services to stakeholders through a greater ease of access to information, a reduction in the time taken from processing of a request.

Improve Customer Relationship

- The SDCIS is expected to provide a timely feedback on applications made whilst at the same time increase transparency of Shipping Division operations. End users will have the ability to follow progress of their different requests on the system.

4.1.5.5. Global Maritime Distress and Safety System (GMDSS)

Contractual Agreement with the Mauritius Telecom for the provision of Global Maritime Distress and Safety System

- Mauritius is a party to the International Convention on Safety of Life at Sea (SOLAS) and as a contracting State, Mauritius has a duty to provide the Global Maritime Distress Safety System (GDMSS) Services.
- The Mauritius Telecom which has the necessary infrastructure and expertise is providing the service on behalf of the Government of Mauritius on a contractual basis and is providing maritime information on weather forecasts, dissemination of distress messages, navigational and safety warnings to ships plying in our territorial waters and EEZ zone on a 24/7 basis. Such information is vital for safety of navigation and safety of life at sea.
- It is also important to provide Maritime Safety Information (weather forecasts, navigational warnings and communications in emergencies) to our local fishing vessels fishing in our territorial waters and fishing banks by means of High Frequency (HF) transceiver.
- A new Agreement is being finalized for GMDSS and HF services.

4.1.5.6. Long Range Identification and Tracking of Ships (LRIT) – IMSO Audit

The Mauritius LRIT National Data Centre, managed by Fulcrum Ltd has successfully passed the International Mobile Satellite Organization (IMSO) audit.

- The **Long Range Identification and Tracking of Ships (LRIT)** is a system put in place by the International Maritime Organization (IMO) whereby LRIT information is provided to Contracting Governments to the 1974 International Convention for the Safety of Life at Sea (SOLAS) and Search and Rescue Services entitled to receive the information, upon request, through a system of National, Regional, Cooperative or International LRIT Data Centres. This has become a necessity following the “September 11, 2001 event. Figure 4.3 shows the processes involved in the LRIT.

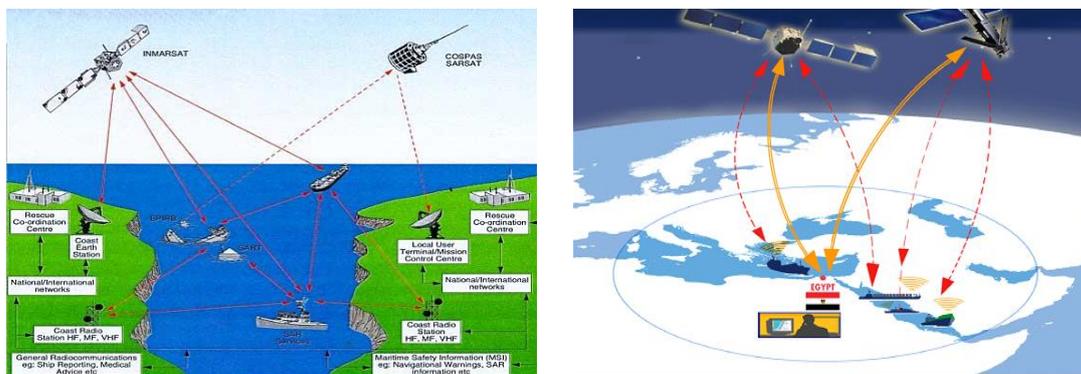


Figure 4.3: Processes involved in the LRIT

- The Mauritius LRIT National Data Centre (NDC) is based in the United Kingdom and an agreement has been signed with Fulcrum Maritime Systems Ltd (FMS) as the Service Provider for LRIT services since July 2009.
- Every year, an audit is being conducted by the International Mobile Satellite Organization (IMSO) and this year the Mauritius LRIT National Data Centre was found to be performing up to required standards.

4.1.5.7. Ballast Water Management Project (BWMP)

A contract has been signed between this Ministry and the Mauritius Oceanography Institute for the conduct of a “Port Biological Baseline Survey” in Port-Mathurin.

- The International Maritime Organization (IMO) has developed an International Convention for the Control and Management of Ships Ballast Water & Sediments (BW Convention) to prevent, minimize and ultimately eliminate the transfer of harmful aquatic organisms and pathogens through the control and management of ships’ ballast water and sediments. Ships that take up ballast water in one area or sea, and then discharge it in another, can seriously disturb or alter the ecosystem by introducing "invasive" micro-organisms which establish themselves in the local environment.
- The Shipping Division entered into agreement with the Mauritius Oceanography Institute (MOI) in 2011 for the conduct of a port biological baseline survey (PBBS) of the port area in Port Louis to identify the types of species existing in waters. The PBBS was completed in 2014. Another survey for updating of data obtained will be conducted during the financial year 2017/2018.
- A new Agreement was signed with Mauritius Oceanography Institute in 2016 for extension of the Port Biological Baseline Survey to Port Mathurin, Rodrigues, to detect the presence of any introduced species. Preparation is underway and a team of experts will proceed to Rodrigues in December 2017 to collect samples and to conduct an awareness campaign with the local community. (Project Period: 3 years)
 - *The contract was signed on 13 June 2016;*
 - *The project value is Rs.15, 000,000.*
 - *The project duration is 3 years.*
- The project will be further extended to Agalega during the 2018/2019.

4.1.5.8. Ships’ Bio-fouling Survey in Port-Louis Harbour

A contract has been signed between this Ministry and the Mauritius Oceanography Institute for the conduct of a “Ships’ Bio-fouling” survey in Port-Louis Harbour.

- Shipping as an international industry has been identified as the major vector for the spread of invasive aquatic species on a global and regional scale. The resulting transfer and introduction of invasive aquatic species through ships' bio-fouling threatens the conservation and sustainable use of biological diversity. Being conscious of this, the International Maritime Organization has

adopted the 2011 Guidelines for the Control and Management of Ships' Bio-fouling to Minimize the Transfer of Invasive Aquatic Species. Figure 4.4 shows ship's bio-fouling by marine organisms.



Figure 4.4: Ship's bio-fouling by marine organisms

- There are approximately 3500 vessel calls in Mauritius every year and as a responsible Member State of IMO, Mauritius is required to apply the guidelines. For this purpose, the Ministry has entered into agreement with the Mauritius Oceanography Institute (MOI) to undertake the following:
 - (i) Development of standardised template for hull inspection (inspection and sampling);
 - (ii) Collection of data on selected vessels (in-shore and in-water) arriving in Port Louis harbour using developed standardised sampling methodology, to provide baseline information on the nature and extent of bio-fouling; and
 - (iii) Description on the composition and patterns of bio-fouling on the selected vessels in dry-dock and in-water.

The Agreement was signed in September 2016 and will last over a period of 3 years.

- *The contract was signed on 30 September 2016;*
- *The project value is Rs. 15,000,000.*

4.1.5.9. New Merchant Shipping Regulations in Force

Pursuant to Section 228 of the Merchant Shipping Act 2007, the following Merchant Shipping Regulations were promulgated during the financial year.

- Merchant Shipping (Classification Society) Regulations 2017;
- Merchant Shipping (National Maritime Search and Rescue Organisation) Regulations 2017;
- Merchant Shipping (Preliminary Inquiries and Formal Investigations of Shipping Casualties) Regulations 2017;
- Merchant Shipping (Registration of Submersible Craft) Regulations 2017;
- Merchant Shipping (Safe Manning, Hours of Work and Watchkeeping) Regulations 2017;

- Merchant Shipping (Training and Certification) Regulations 2017; and
- Merchant Shipping (Tonnage) Regulations 2017.

A copy of these Regulations is available on the website of the Ministry at the following web address:

<http://oceanconomy.govmu.org>

4.1.5.10. Salvage Operation of Yacht Gemeos

Yacht GEMEOS registered in Germany was found grounded on 06 June 2017 at Banc Hollandais, a sand bank off Port Mathurin on its way from Sumatra.

- In accordance with Section 140 of the Merchant Shipping Act 2007, a wreck removal notice was issued to the owner of the vessel instructing him to remove the vessel from its ground position and all associated pollutants within 15 days.
- The salvage operation started on 22 June 2017 and was led by a Maritime expert nominated by the yacht's insurance company. The vessel was successfully refloated and beached at Port Mathurin beach for dismantling. The operation was completed on 30 June 2017 with the discharge and destruction of all collected damaged parts of the wreck at Chantier Naval de L'Océan Indien (CNOI).

4.1.6. Statistics

4.1.6.1. Number of Vessels Registered under the Mauritius Flag (2006 – 2017)

The number of vessels registered under the Mauritius flag from 2006 to 2017 is given in Table 4.2 and Figure 4.5.

Table 4.2: Number of vessels registered under the Mauritius flag

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
No of vessels	107	137	155	168	164	162	160	165	168	165	145	151

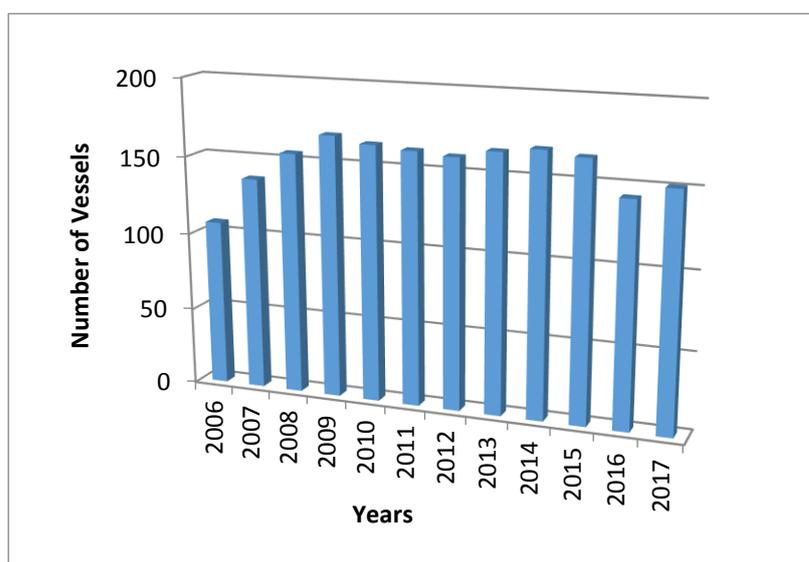


Figure 4.5: Number of vessels registered under the Mauritius flag

4.1.6.2. Types of Vessels Registered under the Mauritius Flag

Details of the types of vessels registered under the Mauritius is given in Table 4.3. The Gross Tonnage of vessels by type is shown in Figure 4.6.

Table 4.3: Types of vessels registered under the Mauritius

Types of Vessels	Number	GT
Barge	37	62115
Accommodation Barge	1	7730
Booster Station	1	256
Product Carrier	1	42292
Bunker Barge	3	2364
Passenger/Cargo	1	5492
Reefer	1	5084
Crew Boat	6	117.63
Dredgers	10	42681
Fishing Vessels	5	6629.72
Floating Crane	1	250
Landing Craft	1	5.84
Launch	12	312.04
Leisure Submersible	2	35.5
Pontoon	13	9105.6
Split Hooper Barge	3	4568
Survey Vessels	6	527.11
Tug Boat	25	8190.83
Work Boat	5	2162
Yachts	17	716.83
Total	151	200635.10

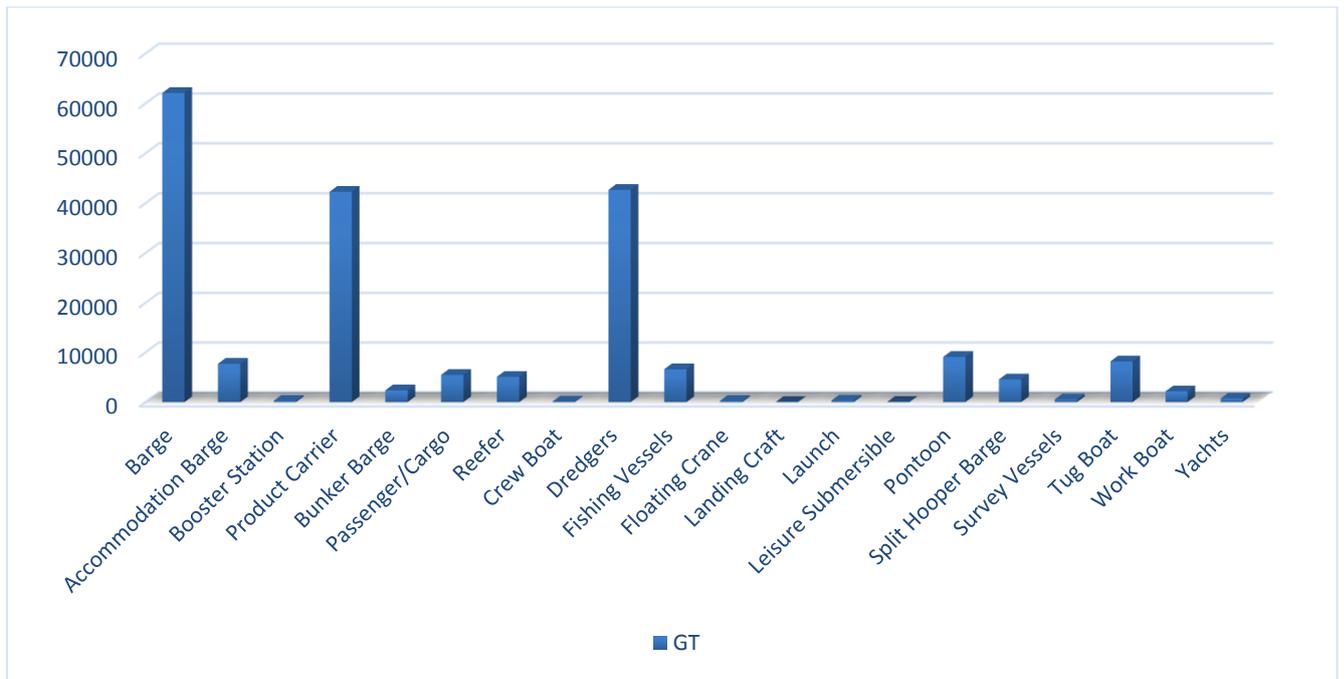


Figure 4.6: Gross Tonnage of vessels by type

4.1.6.3. Number of Casualties at Sea (1999 – June 2017)

The number of casualties at sea from the period ranging from 1999 to June 2017 is given in Table 4.4.

Table 4.4: Number of casualties at sea

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
No of casualties at sea	5	0	1	1	0	5	2	0	3	2	2	0	2	2	2	0	1	1	1

4.1.6.4. Port State Control (2005-2017)

The number of port state inspections from 2005 to June 2017 is given in Table 4.5.

Table 4.5: Number of port state inspections

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
No of Port State Inspections	17	25	17	16	14	11	1	2	1	0	0	3	3

4.1.6.5. Surveys and Inspections Progression (2005 - June 2017)

The number of surveys and inspections from 2005 to June 2017 is given in Table 4.6.

Table 4.6: Number of surveys and inspections

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
No of surveys & Inspections	389	291	181	289	317	168	80	97	132	238	42	41	8

4.1.6.6. Other Services Provided by the Shipping Division

The Shipping Division provides a number of other services as shown in Table 4.7.

Table 4.7: Other services provided by the Shipping Division

SN	Service	Statistics
1	Number of Endorsement Certificates Issued	337
2	Number of Attestation Certificates Issued	169
3	Number of Certificates of Competency Issued	10
4	Number of Minimum Safe Manning Certificates Issued	50
5	Number of Discharge Books Issued	1190
6	Number of Port Clearances Issued	2514

4.1.7. Workshops/Training/Events

4.1.7.1. Anti-Fouling System and Ships Biofouling

The Ministry in collaboration with the International Maritime Organization, organized a National Workshop from 14 to 16 September 2016 on the ratification, implementation and enforcement of the International Convention for the Control of Harmful Anti-Fouling Systems on Ships (AFS 2001) and Guidelines for the Control and Management of Ships' Bio-fouling to minimize transfer of invasive aquatic species.

The objectives of the workshop were to raise awareness among stakeholders on the impacts of AFS and ships' bio-fouling, and to build capacity for the ratification and implementation of the AFS Convention and the implementation of the Bio-fouling Guidelines. This is in line with the Government vision to develop a sustainable ocean economy.

The workshop was attended by 40 participants both from public and private institutions.

A visit was organized to the Chanter Naval de L'Océan Indien for participants to see how fouls were being cleaned from ships' hull and anti-fouling paint being applied.

4.1.7.2. Search and Rescue Capability Partnership Program (SCPP) of the Australian Maritime Safety Authority (AMSA).

With a view to enhance existing Search and Rescue (SAR) capability in the region, Australian Maritime Safety Authority (AMSA) established a training project for search and rescue National stakeholders in consultation with International Civil Aviation Organisation (ICAO), International Maritime Organization (IMO) and our regional neighbours in response to growing aviation and maritime security in the region.

AMSA provided funding of \$2.6 million for cooperation with Mauritius, Maldives and Sri Lanka to build search and rescue capacity in the Indian Ocean. As AMSA expertise is highly reputed in Safety of Navigation, this new area of collaboration is an excellent opportunity for Mauritius to benefit from the expertise of Australia in terms of SAR.

The activities under the SCPP have been grouped into three broad categories, namely:

- *Staff training,*
- *Systems and material; &*
- *Develop SAR framework.*

4.1.7.3. SOLAS Verified Gross Mass

The main purpose of the Verified Gross Mass (VGM) regulation is to obtain an accurate gross weight of packed containers so that vessels and terminal operators can put together vessel loading and stowage plans BEFORE loading cargo containers on ships. This requirement will protect vessel and terminal operators' people and equipment as well as your (the shippers') cargo.

A one-day workshop was organized by the Ministry with the collaboration of the International Maritime Organization on 20 March 2017 for the Shipping Division and all stakeholders concerned, namely the Mauritius Ports Authority, Cargo Handling Corporation Ltd, Shipping Companies, Service Providers and Shippers.

The aim of the workshop was to promote a multi-agency and government approach to support the full implementation of requirements and recommendations relating to the verification of the gross mass (VGM) of packed containers. The intention of the exercise was to stimulate discussions on the regulatory developments related to measures to prevent loss of containers and to demonstrate the need for co-operation amongst government departments and agencies responsible for certification of weights and measures.

The workshop was attended by 110 participants.

4.1.7.4. Particularly Sensitive Sea Areas (PSSA)

The Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping in collaboration with the International Maritime Organisation (IMO) organised a three-day Sub regional workshop on Particularly Sensitive Sea Areas from Tuesday 11 to Thursday 13 April 2017 at Business Parks of Mauritius Ltd (BPML Conference Centre), Cybertower 1, Ebene Cybercity, Mauritius.

The purpose of the workshop was to increase the knowledge of stakeholders from the maritime administration and relevant ministries in the beneficiary countries with a view to assist in initiating a Particularly Sensitive Sea Areas (PSSA) assessment process taking into consideration the IMO associated protective measures that could be implemented under proposed PSSAs.

Resource Persons:

a. Mr Edward KLEVERLAAN	b. Dr Anita Irmeli MAKINEN
IMO Team Leader/Head	IMO Consultant/
Office for London Convention/ Protocol and Ocean Affairs	Chief Adviser to the Director General of the Maritime Sector
International Maritime Organization	Finnish Transport Safety Agency

Participants

The workshop was attended by some 40 participants, which included 10 foreign delegates from Comoros, Kenya, Madagascar and Seychelles and the Indian Ocean Commission.

The local participants comprised key stakeholders from the relevant Ministries and NGOs.

4.1.7.5. Celebration for “Day of the Seafarer”

Every year the “Day of the Seafarer” is celebrated on 25 June to pay tribute to the world’s seafarers and show respect, recognition and gratitude to seafarers everywhere. Its is also an opportunity to educate the public about issues facing the modern-day seafarers – such as piracy.

This year, the theme chosen by the International Maritime Organization (IMO) for the “Day of the Seafarer” is “Seafarers Matter”. To mark the event, a series of activities were organised on Sunday 25 June 2017, in collaboration with the Seafarers Welfare Funs and the Mauritius Sailors’ Home Society.

4.2. MAURITIUS MARITIME TRAINING ACADEMY

4.2.1 Historical Background

- The idea of setting up a Sea Training School was born in 1970. Among the various buildings visited by the consultant, Mr T. Abd-el-Dayern, the building occupied by the Naval Voluntary forces during the British rule at 7, Guy Rozemont Square Port Louis was found to be the most suitable.
- The school was established initially to provide pre-sea training at sea to young school leavers. Eventually the school provided training to all categories of ratings in order to constitute a pool of seamen for employment locally and in foreign shipping companies.
- As the building reached an advance stage of deterioration, a decision was taken to construct a modern training institute.
- The Sea Training School was established in 1970 with the assistance of the Danish Government by the Ministry of Labour and Industrial Relations, when the late Sir Harold Walter held the portfolio of Minister of Labour and Industrial Relations. It has been providing courses for seafarers and prospective seafarers.
- In 2003, government approval was obtained for the construction of a modern and functional building with sea frontage at Pointe Aux Sables. The project was completed in 2006. In 2007, Government gave its approval to the renaming of the school as the Mauritius Maritime Training Academy. This Training Academy was inaugurated on 19 October 2007. Figure 4.7 shows the Mauritius Maritime Training Academy.



Figure 4.7: The Mauritius Maritime Training Academy

4.2.1. Organisational Chart of MMTA

Figure 4.8 shows the organisation chart of the MMTA.

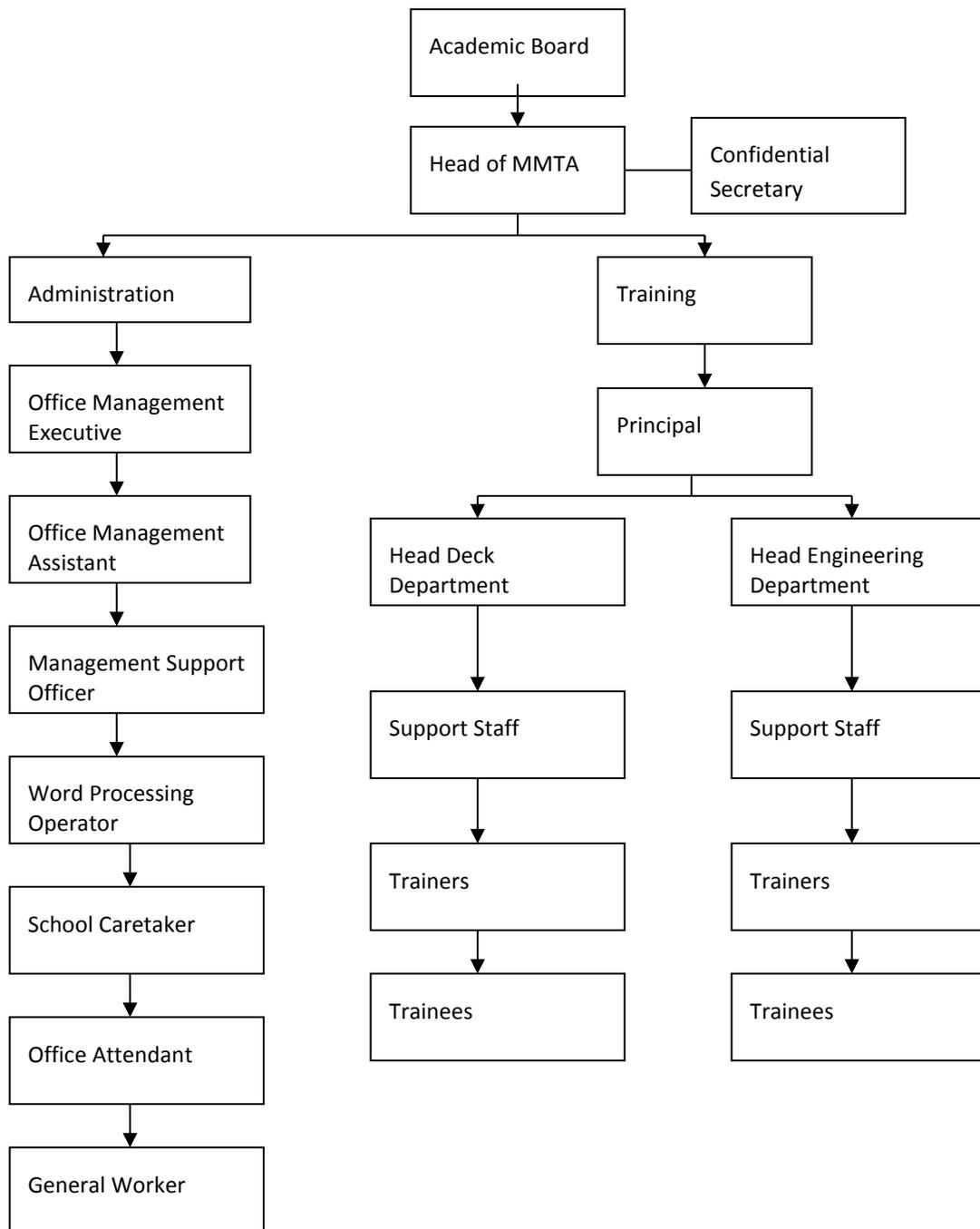


Figure 4.8: The organisation chart of the MMTA

- Total No. of Number of candidates trained from July 2016 to June 2017: **1,381**

4.3. FISHERIES DIVISION

4.3.1. Roles and Functions of the Fisheries Division

The Fisheries Division consists of 10 Sections namely:

- 1) Fisheries Planning/Licensing
- 2) Marine Resources
- 3) VMS/Port State Control/Import & Export
- 4) Aquaculture
- 5) Marine Science
- 6) Marine Conservation
- 7) Fisheries Development & Training
- 8) Laboratories

4.3.1.1. Fisheries Planning & Licensing Division

The Fisheries Planning and Licensing Division comprises the Planning Unit and the Licensing Unit. The Planning Unit is responsible for planning, implementation of fisheries policies, 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 Mauritius.

4.3.1.2. Marine Resources Division

The Division is responsible for carrying out research and development activities aimed at increasing knowledge on the fishery resources found in our Exclusive Economic Zone (EEZ) 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.

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

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

The main objectives of the division are to combat Illegal, Unreported and Unregulated (IUU) fishing, to have a clean port free of illegal fishing boats/vessels, control export and trade of legally caught fish and to have continuous supply of safe fish and fish products 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.

4.3.1.4. Aquaculture Division

The Aquaculture Division is responsible for the promotion of aquaculture development to increase fish production through research on different marine and freshwater species. Its activities include transfer of aquaculture techniques for production of different fish species to farmers, improve aquaculture techniques for quality seed production, dissemination of information on aquaculture, advice, facilitate and monitor aquaculture projects.

- release of fingerlings for marine ranching; and
- implementation of cage culture projects.

4.3.1.5. Marine Science Division

The role of the Division is to carry out long-term monitoring of the marine ecosystem, disseminate information and technical advice on mangrove propagation and to implement respective activities with regard to the vision and mission of the Ministry. The Division also collaborates with other institutions in connection with coastal and tourism related projects.

4.3.1.6. Marine Conservation Division

The Division is responsible for the long term protection and conservation of marine biodiversity and habitats for sustainable use while maximizing economic and social benefits of our Marine Protected Areas. The Division is also in responsible for the management of eight Marine Protected Areas which include two Marine Parks and six Fishing Reserves.

4.3.1.7. Fisheries Development and Training

The Fisheries Training and Extension Centre (FITEC), through its training activities, aims at empowering fishermen to earn a better livelihood and facilitates them to venture into more profitable off-lagoon fishing around Fish Aggregating Devices (FADs) by deploying and maintaining a number of these FADs around the island. The objectives of FITEC are to provide knowledge and skills to the stakeholders of the fishing industry to effectively, efficiently and safely fish in a sustainable manner with due regard to the protection and conservation of marine ecosystems and fisheries resources. Moreover, the Centre is certified MS ISO 9001:2008 since July 2010 for its training component.

4.3.1.8. Laboratory Division

The AFRC laboratories are committed to instil the highest standard of quality for seawater and fish toxicity testing and associated services in view of monitoring, protecting and conserving the marine resources and safeguarding public health through the long-term monitoring of seawater quality for different parameters. Screening of toxic fish and attending to cases of fish mortality and pollution are also part of the activities of the section.

4.3.2. Staff structure

Figure 4.9 shows the organisational chart of the Fisheries Technical Cadre.

4.3.2.1. Organigram of the Fisheries Technical Services

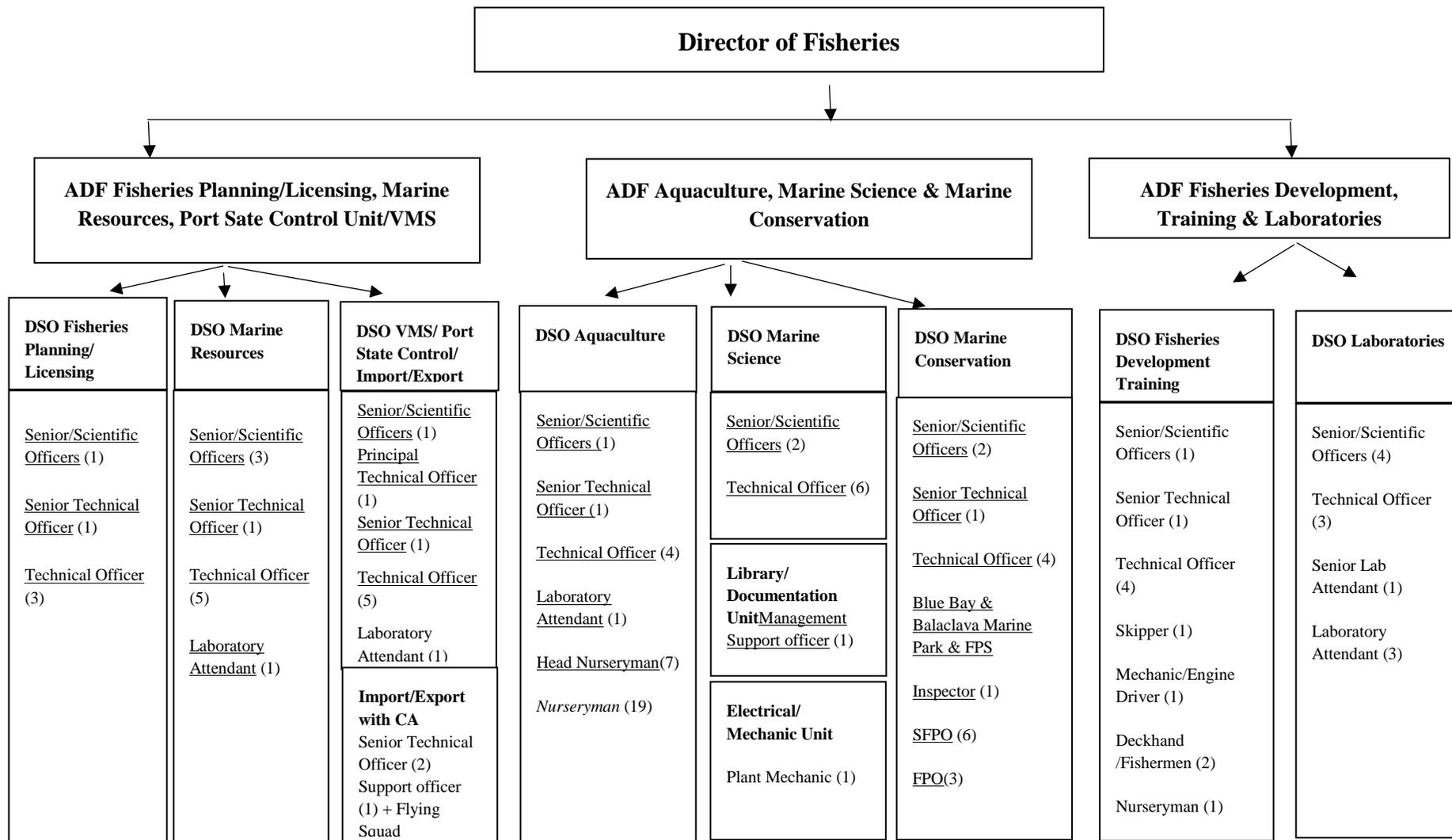


Figure 4.9 shows the organisational chart of the Fisheries Technical Cadre

4.3.3. Achievements

- Compilation of logbooks and processing of catch and effort data for pelagic fishery.
- A total of 578 fish (tuna) were sampled from the catch of the purse seiners
- 733 fish (tuna and swordfish) were sampled from the catch of the semi industrial longliners.
- A total of 2764 fish (tuna) were sampled from the catch of foreign longliners
- A total of 241 fish (tuna) were sampled from the catch of foreign purse seiners
- Processing and submission of data and information to the Indian Ocean Tuna Commission
- IOTC Compliance related activities – Provision of information for compliance assessment, providing input for compliance report, Implementation report, reports for working parties and National report (Scientific Committee).
- The catch of Mauritius Flagged Longliners was 556 tonnes (98 logbooks were received)
- The catch of Mauritius Flagged Purse seiners was 12594 tonnes (26 logbooks received)
- The catch of Foreign Flagged Longliners was 5405 tonnes (126 logbooks received)
- The Catch of Foreign Flagged purse seiners was 821 tonnes (4 logbooks received)

Table 4.7 shows the catch details for the purse seine and semi industrial longline fleet for the period July 2016-June 2017. Figure 4.10 shows the catch of tuna and tuna like species for the period July 2016-June 2017.

Table 4.7: Catch details for the purse seine and semi industrial longline fleet

Month	Catch of purse seiners (Tonnes)	Catch of Longliners (Tonnes)
July	1249	32
Aug	628	41
Sep	779	45
Oct	1544	36
Nov	898	64
Dec	676	105
Jan	1513	49
Feb	1712	40
Mar	851	28
Apr	1049	35
May	610	41
June	1085	40
Total	12594	556

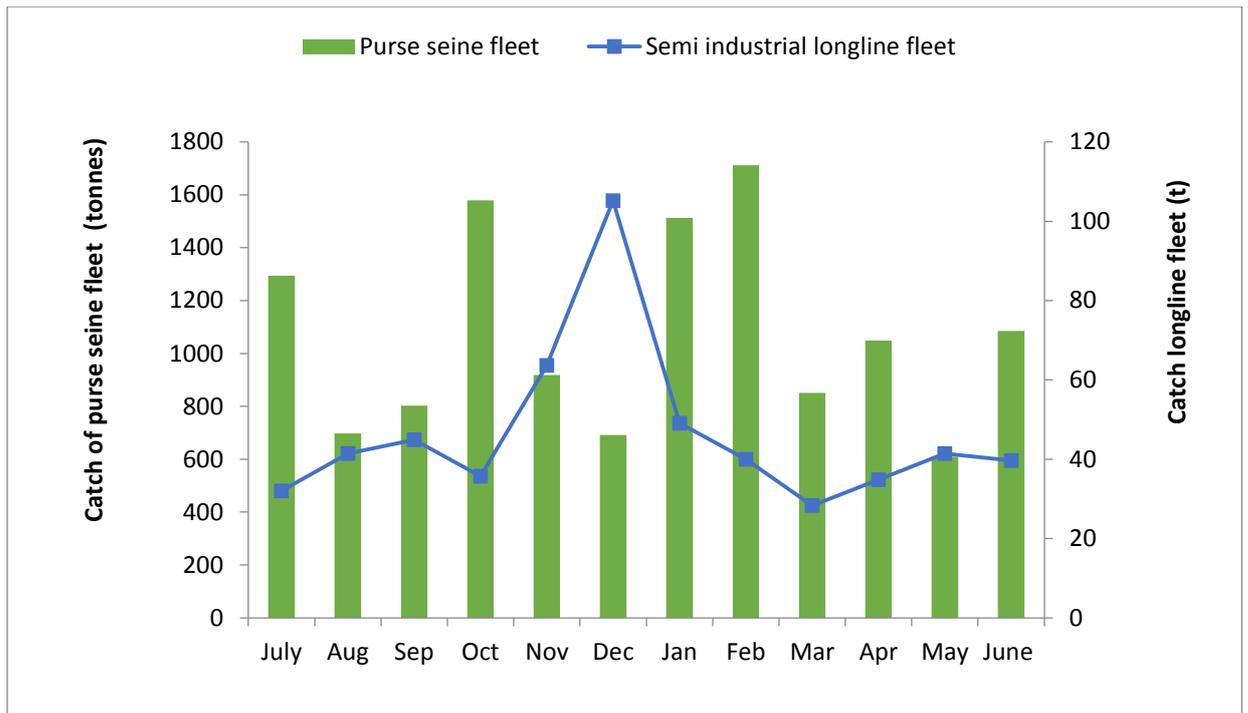


Figure 4.10: Catch of tuna and tuna like species for the period July 2016-June 2017

For the period of July 2016 to June 2017, a new set of twenty (20) Fish Landing Stations were randomly selected each month from the three geographical stratum, namely North, East and West region, around Mauritius. Some 240 landings were monitored to estimate the catch for the whole island. The majority of fish landed in this fishery are caught by basket trap, line and large net. Figure 4.11 shows the estimated catch (tonnes) in the coastal fishery from July 2016 to July 2017.

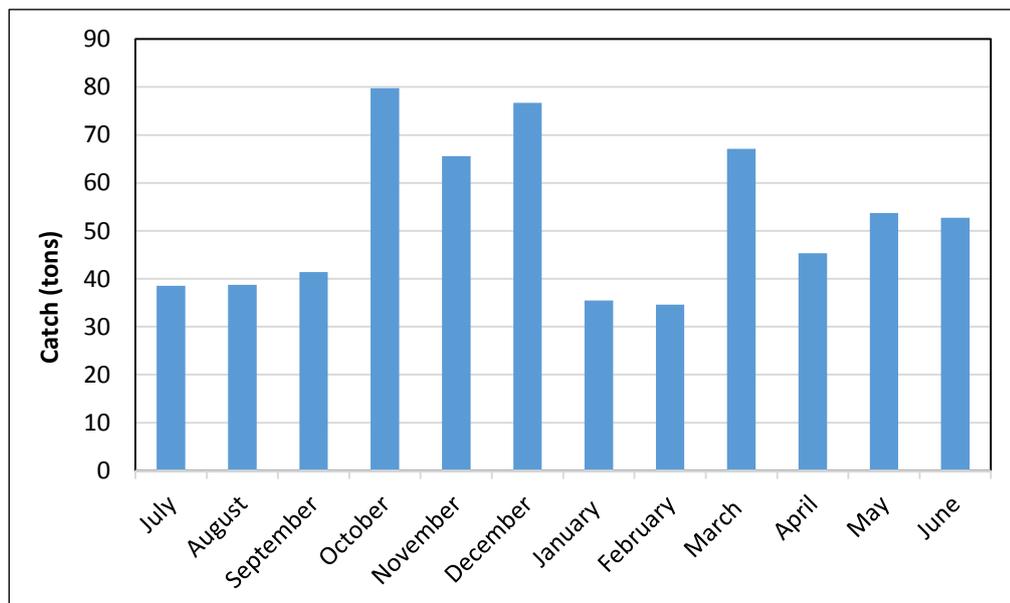


Figure 4.11: Estimated catch (tonnes) in the coastal fishery

- The total catch for octopus from July 2016 to June 2017 was estimated at 31.6 tonnes. A two-month seasonal closure of octopus fishing was enforced from 15 August to 15 October 2016 in Mauritius to allow growth and reproduction of octopus. Mean octopus weight was 668g before closure of octopus fishing and 1,550g after the re-opening. Catch by fishermen day was 1-5kg before closure and reached up to 15kg after re-opening.
- Seized fish specimens were identified in the biological lab at AFRC and reports were prepared for the National Coast Guard, Fisheries Protection Service and Police for further prosecution. Identification of 5,009 units of various marine specimen representatives of 107 occurrences of various offences against the Fisheries and Marine Resources Act 2007. Figure 4.12 shows the monthly catch by fishery in respect of the offshore demersal fishery project.

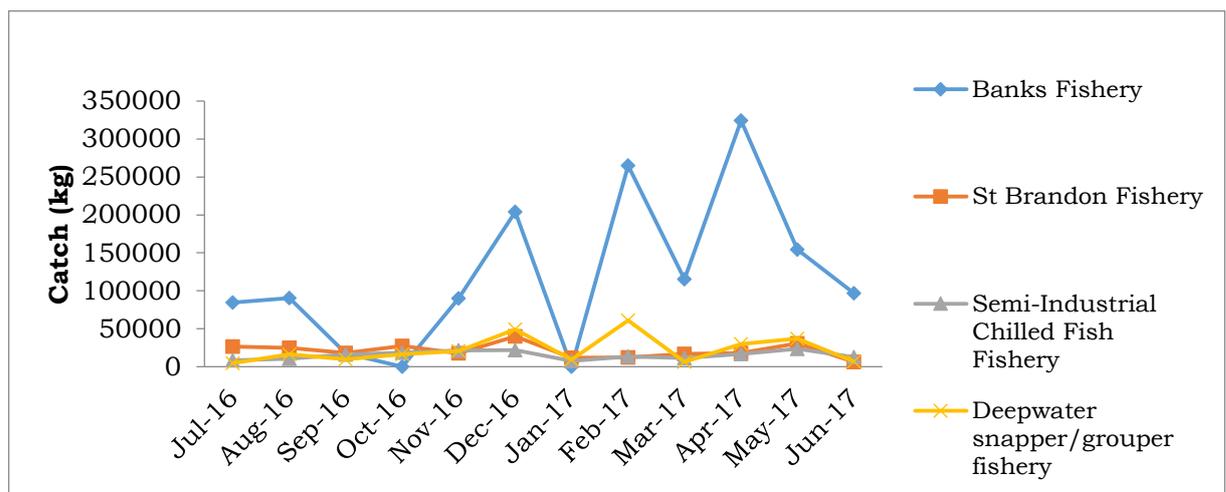


Figure 4.12: Monthly catch by fishery - Offshore demersal fishery project

- Figure 4.13 shows the number of vessel by type and Figure 4.14 shows the number of licenses issued by nationality.

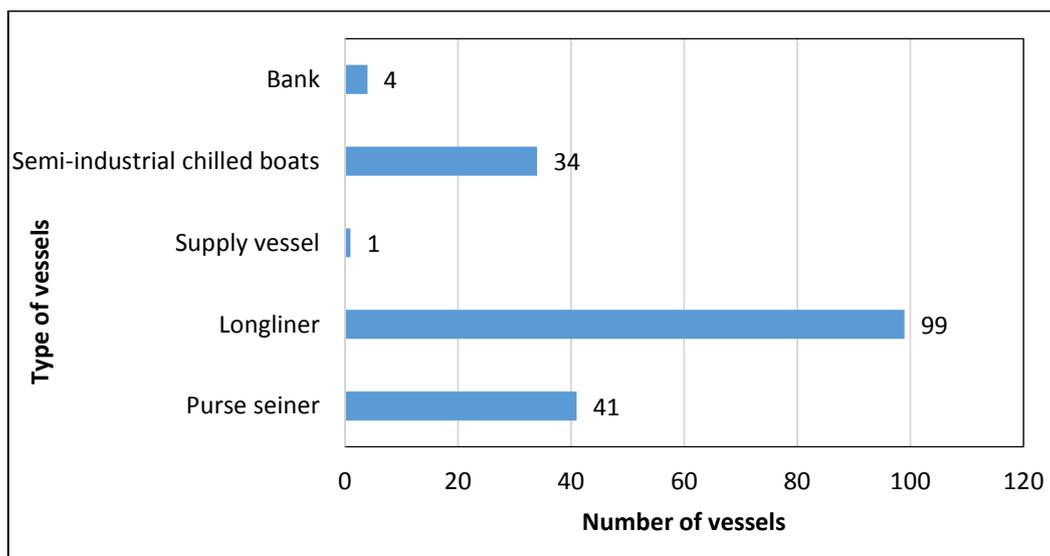


Figure 4.13: Number of vessel by type

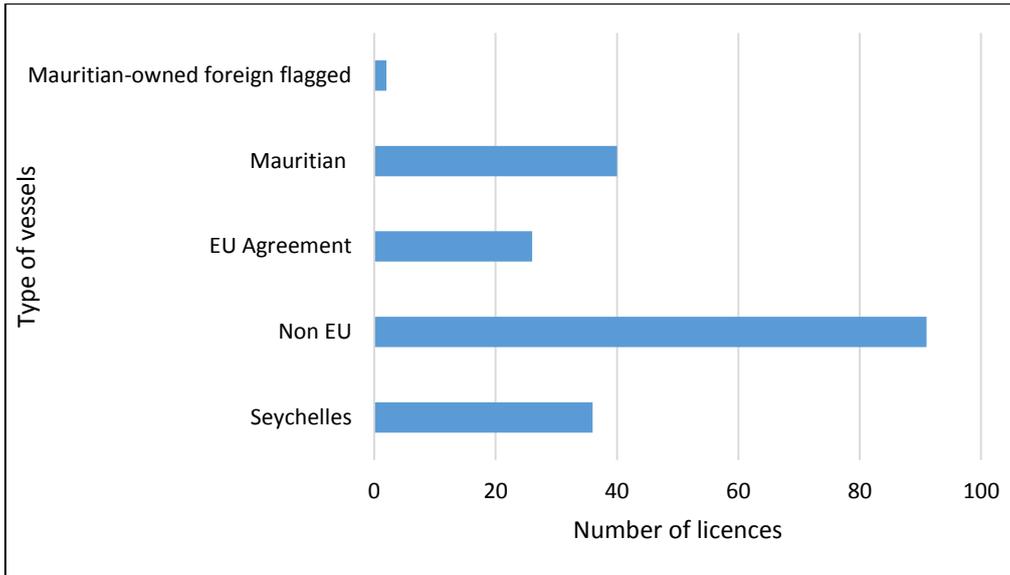


Figure 4.14: Number of licenses issued by nationality

Note:

- 847 boats/vessels calling at port for bunkering, repairs change of crew among others. The vessels consisted mainly of longliners (671).

Table 4.8 provides details of the number of fishing boats/vessels calling at port for bunkering, repairs change of crew among others.

Table 4.8: Details of the number of fishing boats/vessels calling at port

Type of Vessel	Jul- Dec 2016	Jan- Jun 2017	Total
Purse Seiner	4	6	10
Longliner	347	324	671
Toothfish Vessel	10	11	21
Trawler	7	13	20
Frozen Carrier Vessel	16	39	55
Squid Vessel	0	62	62
Bank Fishing Vessel	4	4	8
Total	388	459	847

- A total of 322 vessels were boarded and inspected during the period under review.

Table 4.9 provides details on the number of vessels that were boarded and inspected for the period under review.

Table 4.9: Details on the number of vessels that were boarded and inspected

Activities	Jul- Dec 2016	Jan- Jun 2017	Total
Clearance for unloading of fish Issued to local and foreign vessels.	482	521	1003
Landing of catch monitored. (Local + foreign vessel)	472	165	637
Survey of vessels carried out on local vessels prior to departure	148	174	322

Details on import of fish and fish products for the period Jul-Dec 2016 and Jan-Jun 2017 is presented in the Table 4.10.

- Details of export of fish and fish products for period of Jul-Dec 2016 and Jan-Jun 2017 in tonnes are given in table 4.11. Figure 4.15 shows the export of fish and fish products by type.

Table 4.11: Export of fish and fish products

Products	Jul-Dec 2016	Jan-Jun 2017	Total
Live marine Ornamental fish (unit)	9333	3127	12460
Live fresh water ornamental fish(units)	1966	2425	4391
Salted Snoek (t)	10	13	23
Chilled fish (t)	23	52	75
Chilled fish from Aquaculture (t)	311	320	631
Fish meal (dry) (t)	6832	7428	14260
Fish oil (t)	90	679	769
Frozen/precooked(t)	7339	780	8119
Frozen /processed(ton)	4757	5239	9996
Frozen fish (t)	11466	12898	24364
Tuna in pouch (t)	3820	4443	8263
Tuna in Jars (t)	230	398	628
Canned tuna (t)	20411	16772	37183
Export authorisations issued (unit)	2156	2085	4241

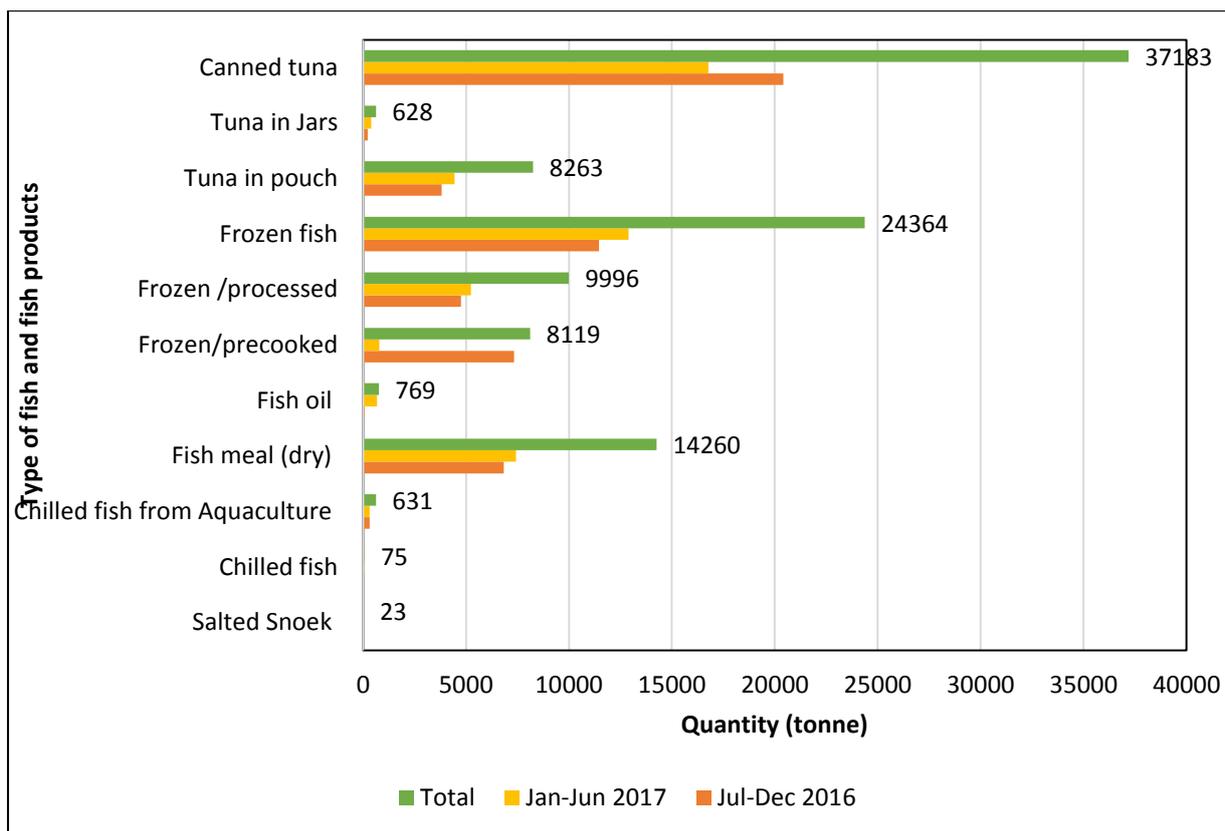


Figure: 4.15: Export of fish and fish products

- 155 000 seabream fingerlings were produced in the hatchery at AFRC. The seabream fingerlings were released in the barachois Oasis (Pointe Lascars) and Melville (Grand Gaube) and in the following regions Albion, Flic en Flac, Pointe aux Piment and Vieux Grand Port for stock enhancement under the marine ranching project.
- 350 hatchery produced crablets were released in the mangrove areas of the Blue Bay Marine Park under the Marine Ranching Project.
- Ten floating cages have already been allocated to ten Fishermen Cooperative Societies for fish culture in the lagoon namely at: Grande Riviere Sud Est, Quatre Soeurs, Bambous Virieux, Grand Gaube & Poudre D'Or. Cordonier fingerlings were given free of charge for culture in the cages.
- Six barachois vested in this Ministry have been allocated to private promoters for aquaculture. These barachois are Grand barachois (Humbert) at P. d'Or, Petit barachois at P. d'Or and Butte a l'Herbe barachois at Calodyne, Trou Cango (Poudre d'Or), barachois Fishing Bay (Soorsa) at Pointe des Lascars and Barachois Rochecoute at Mahebourg.
- Out of the 20 sites for large scale aquaculture, 18 have been allocated to potential promoters for fish farming.
- A total of 6720 berri rouge fingerlings have been distributed to 127 person, out of which 1580 berri rouge fingerlings were sold to 13 persons. Figure 4.16 shows a picture of berri rouge fish.



Figure 4.16: Berri Rouge fish

- A total of 8100 camaron juveniles have been sold. Figure 4.17 shows the picture of a giant freshwater prawn.



Figure 4.17: Giant freshwater prawn (Cameron)

- A total of 1010 tonnes were produced for red drum and seabass. Figure 4.18 shows the pictures of red drum and seabass.



Figure 4.18: Red drum (*right*) and seabass (*left*) fish

During the fiscal year 2016/2017, monitoring surveys were conducted for the following sites: Albion, Le Goulet – Baie du Tombeau, Trou aux Biches, Trou d’Eau Douce, Bel Ombre, Ile aux Benitiers, Belle Mare and Blue Bay Marine Park. Overall the surveys showed that the live coral cover of Mauritius is declining owing partly to the recent mass coral bleaching events. Figure 4.19 shows the coral cover at Belle Mare.



Figure 4.19: Coral cover at Belle Mare

- Mangrove propagation is another main project of the Marine Science Division. The Ministry receives many requests throughout the year from NGOs, CSR department of organisations among others. Figure 4.20 shows mangrove plantation at Case Noyale.



Figure 4.20: Mangroves at Case Noyale

- 850 mangrove propagules were planted
- The associated biota of coral reefs is monitored and while the population of marine turtles are not monitored in our waters but very much protected.
- While the marine turtles are protected by law during the Fisheries and Marine Resources Act, there is an on-going national project for their protection entitled: “Collaborative project on Marine Turtles Conservation”. The project gathers representatives from the following sectors: Fisheries Protection Service, Ministry of Social Security, National Solidarity, and Environment and Sustainable Development (Environment and Sustainable Development Division), National Coast Guard, Lagon Bleu (Eco-Sud), Mauritius Marine Conservation Society, Reef Conservation, HSBC, Rogers & Co. Ltd, Mauritius Wildlife Foundation, National Parks and Conservation Services (NPCS), Omnicane and ENL.

- The components of the projects during the fiscal year 2016/2017 in which the Ministry participated are:
 - Educational Sessions
 - Flat Island Nesting
 - Exchange trip to Kelonia, Reunion Island
- An action plan to attend to the issue of stranded mammals/turtles in our coastal waters/areas is being implemented. Five cases of dead marine turtle were reported and were attended to. An injured adult marine turtle was taken care of at AFRC and after treatment, it was successfully released at the Blue Bay Marine Park Centre. Figure 4.21 shows an injured marine turtle at AFRC.



Figure 4.21: Injured marine turtle

- Thirty (30) ad-hoc underwater ecological surveys were conducted. Surveys were conducted for the demarcation of swimming zone at Le One & Only St. Geran Hotel, Bel Ombre, Laguna Beach Hotel and Crystal Beach Hotel, for the identification of potential sites for the culture of sea cucumber at La Preneuse, for the construction of jetties at Anahita, for the removal of “hache d’armes” from swimming zone situated at Prince Maurice Hotel, for the placement of coral tables in the Blue Bay Marine Park amongst others.
- Thirty (30) permits were delivered free of charge as they were issued to registered fishermen.
- Coral farming project was successfully implemented in the Blue Bay Marine Park.

Figure 4.22 shows a coral farming table in Blue bay Marine Park.



Figure 4.22: Coral farming table in Blue bay Marine Park

- Forty one (41) new Environmental Impact Assessment applications were processed and official views have been accordingly forwarded to the Ministry of Environment.
- Eighty five (85) fishmongers were given training on Fish Handling, Preservation and Marketing.
- FiTEC in collaboration with the Mauritius Maritime Training Academy conducted the Skipper’s Course for operating boats less than 24 metres from July 2016 to February 2017, whereby 17 out of the 26 selected applicants successfully completed the course.
- Six FADs were replaced and 73 % of the FADs were kept active as at June 2017

Figure 4.23 depicts a FAD deployed at sea and species of fish caught around FADs.



Figure 4.23: A FAD deployed at sea (*left*) and species of fish caught around FADs (*right*)

- The General Course for Fisher started in June 2017 with a batch of 15 persons.
- Three hundred and fifty (350) seawater samples collected at 13 public beaches, 26 established monitoring sites, 2 Marine Parks, 1 private aquaculture site and three sewage outfalls were analysed for physico-chemical parameters and coliform bacteria.
- 90 samples of algae were collected at five established coastal sites for identification and enumeration of harmful marine microalgae.
- Ciguatoxin test were conducted on 20 fish samples. Six reported cases of fish kill and 3 cases of marine pollution were attended.
- The Marine Microbiology Laboratory was accredited to MS ISO/IEC 17025 Standard by MAURITAS for two parameters, namely Total Coliform and Faecal Coliform in seawater.
- MAURITAS has maintained the accreditation of the Marine Chemistry laboratory for two test parameters, namely pH and Phosphate in seawater.
- The Marine Chemistry and Marine Microbiology Laboratories have satisfactorily participated in the International Proficiency Testing Programs for quality assurance of their test results.
- The Laboratories Division attended to seawater, sediment and biota sampling as a result of the oil spill caused by the grounding of MV Benita at Le Bouchon. The reports were submitted to the coordinating committee.

4.4. FISHERIES PROTECTION SERVICE

The **Fisheries Protection Service (FPS)** is the enforcement arm of the Ministry responsible for the protection and conservation of the marine fisheries resources for sustainable development, ensuring marketing of safe fish and fish products for human consumption.

4.4.1. Main responsibilities of FPS

- Enforcement of Fisheries laws and regulations to curb illegal fishing in order to protect our marine resources.
- Coast and afloat patrols and including participation in surveillance program in the EEZ.
- Collection of fisheries data by supervision of 61 fish landing stations, sale points and fishing port.
- Registration/record of fishermen/fishing boats as per FMR Act 27/2007.
- Issue/renewal of net fishing/fishmongers licences as per GN 18/1983.
- Processing payment of bad weather/close season allowances.
- Apprise meteorological services about prevailing weather conditions every morning.
- Record of sea temperature for lagoon Monitoring Program 3 times daily.
- Clearing of fishing vessels in the Port area prior to fishing campaign.
- Monitoring activities in the Marine Parks
- Prosecuting cases at Court.

4.4.2. Fisheries Protection Service (FPS)

Figure 4.24 shows the organisational chart of the FPS.

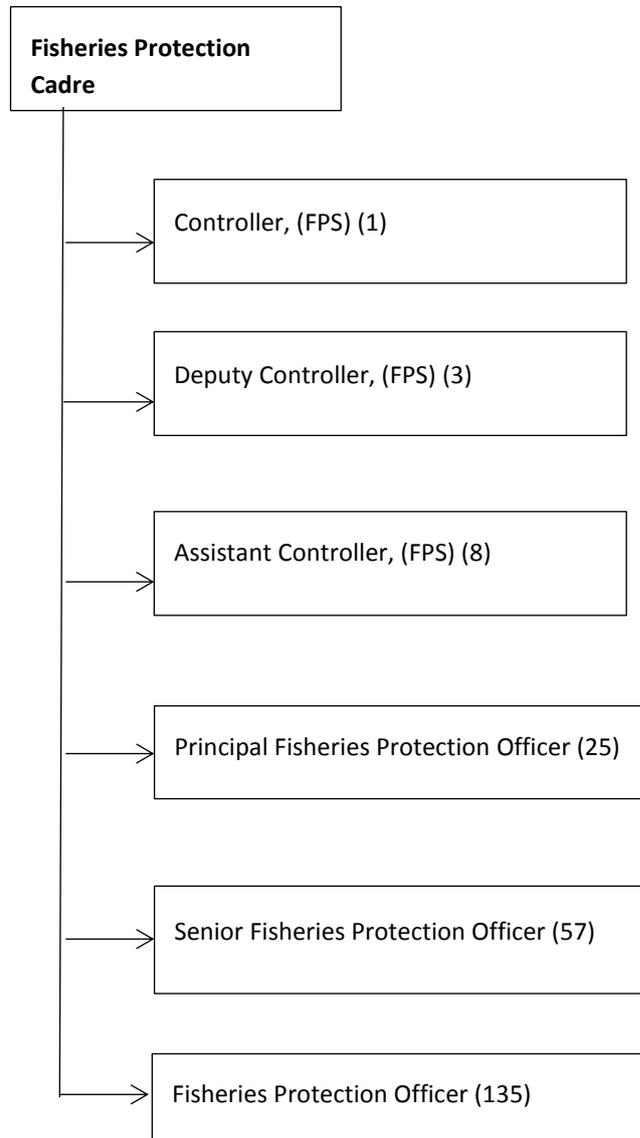


Figure 4.24: The organisational chart of the FPS

4.4.3. Achievements

- 375 illegal fishing cases have been reported, of which 183 are illegal net fishing resulting in seizure of 9,228 metres of illegal nets (*see Table 1*). 82 cases were prosecuted, resulting in Rs 139,900 as fines collected. 11,067 coast patrols and 1,590 afloat patrols were effected, 1,635 outlets and 2,942 fishmongers were checked accordingly.
- 25 Fisheries Protection Officers were recruited by FPS in July 2016 and followed an induction course at FITEC and self-defence with the Police at the Police Training School Beau Bassin. A passing out parade was organised on 04 March 2017 at the Police Training School Beau Bassin. These officers participated in the parade at Champ de Mars on the occasion of the National Day to mark the Independence of Mauritius.
- Officers of FPS had the opportunity to follow a course in China on aquaculture and sea surveillance.
- FPS officers participated in the Joint Surveillance with the NCG under Smart Fish Programme effected by Dornier aircraft in the EEZ from October 2016 to July 2017 where 19 sorties carried out. Several fishing vessels interrogated during surveillance mission and all found compliant. No illegal, unreported and unregulated fishing detected during the trips.

4.5. COMPETENT AUTHORITY-SEAFOOD

The Competent Authority Seafood (CASF) which is a public body operating under the aegis of the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping, is responsible for the verification and certification of fish and fish products meant for export primarily to Member States of the European Union (EU) as well as to non-EU countries. It operates at the Trade and Marketing Centre in Mer Rouge within the provisions of the **Fisheries and Marine Resources Act and its subsequent amendments (Government Notice 147 of 2009 - Export of fish and fish products and Government Notice No 27 of 2012 – Import of Fish and Fish Products)**.

4.5.1. Duties and responsibilities

The CASF is responsible of the followings:

- registration of fish business operators (processing plants, cold stores, freezing vessels, exporters etc.) 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 fishing vessels providing raw material to registered fish business operators prior to departure for fishing campaign;
- inspection and organoleptic examination of chilled pelagic/demersal fish intended for processing by registered fish business operators or for export;
- inspection of all fish and fish products imported for further processing before re-export;
- inspection of landing sites for whole brine-frozen tuna and pelagic/demersal fish;
- inspection of all consignments of fish and fish products for compliance before export to EU and non-EU countries;
- official audits, routine/follow-up/ad-hoc inspections of registered fish business operators for verification of compliance with national and international legislations;
- sampling of water, ice, fish and fish products from each EU-approved facility for analysis in a designated laboratory and
- preparation of a national residue monitoring plan for aquaculture products for approval by the Health and Consumers Directorate-General of the European Commission (DG SANTE).
- control of live fish for both ornamental and culture purposes in Mauritius which involves inspection of consignments of live fish at point of entry and approval of quarantine facilities as per procedures in place.

4.5.1.1. Competent Authority Seafood (CASF)

Figure 4.25 shows the organisational chart of the CASF.

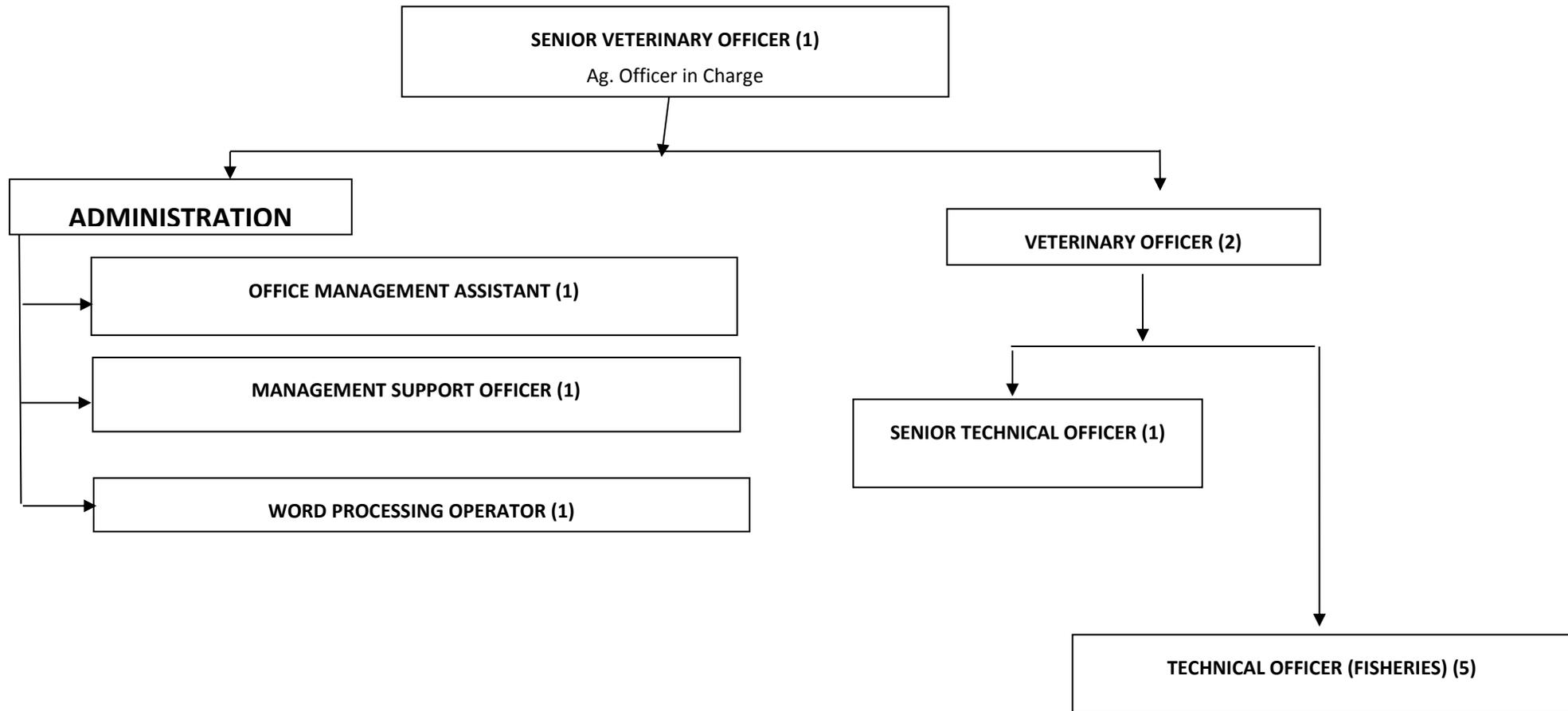


Figure 4.25: The organisational chart of the CASF

4.5.2. Achievements of the CASF

Table 4.12 summarises the achievements of the CASF.

Table 4.12: Achievements of CASF

SN	Activities	Number
1	Number of EU Export Health Certificates issued by	3378
	Number of non-EU Export Health Certificates issued	1219
	Total Number of Export Health Certificates issued by	4597
2	Number of official audits carried out by the CASF	30
3	Number of registered Fish Business Operators	31
4	Number of newly registered Fish Business Operators	5
5	Number of EU-approved establishments	16

Figure 4.26 shows the recording of the core temperature for imported brine frozen tuna to be used as raw material for processing.



Figure 4.26: Record of temperature of brine frozen tuna

4.6. KEY RESPONSIBILITIES OF STATUTORY BODIES

4.6.1. Mauritius Oceanography Institute (MOI)

Being the technical arm of the Government of Mauritius, the MOI is expected to play a key role in providing data and information to assist the Government in the sustainable development of the ocean economy. In line with the Government Programme 2016 - 2019 and its Vision 2030, MOI has restructured its research agenda in order to support the sustainable development of the Ocean Economy.

4.6.1.1. Functions (As per MOI Act 1999)

- (a) to initiate, encourage, launch, facilitate, support, undertake, participate in, rationalise and coordinate research and development in relation to oceanography having regard to the national, regional and international interests of Mauritius, its needs and priorities;
- (b) to arrange for carrying out such research and development;
- (c) to provide any other institution, body or person with facilities for carrying out such research and development;
- (d) to maximize opportunities and arrangements for such research and development on a collaborative basis;
- (e) to encourage and facilitate the application and use of the results of such research and development;
- (f) to prepare, fund, implement and periodically update and monitor programmes relating to the sustainable development of marine resources;
- (g) to collect, coordinate, store and disseminate information relating to oceanography and to publish reports and other material relating to oceanography;
- (h) to identify training needs in the field of oceanography;
- (i) to make available to other institutions, bodies or persons, on such terms and conditions as it thinks fit knowledge, expertise, equipment or facilities of the Institute;
- (j) to do anything incidental or conducive to the performance of any of its functions under this section.

4.6.2. Seafarers' Welfare Fund

On end December 2008, the Seafarers' Welfare Fund (SWF) Act 2008 came into operation. It was created in order to cater for the social and economic welfare of seafarers in Mauritius and take over and manage the assets and discharge the liabilities of the Seafarer's Welfare Fund established under the Merchant Shipping (Seafarer's Welfare Fund) Regulations 2002.

4.6.2.1. Objectives

The Objectives of the Fund are as follows:-

- a) to ensure that welfare facilities and services are provided for all seafarers, irrespective of nationality, race, colour, sex, religion, political opinion or social origin and irrespective of state in which the ship on which they are employed is registered;
- b) to periodically assess and review the adequacy of existing welfare facilities for seafarers;
- c) to provide for such additional facilities or withdrawal of such underutilized facilities as may be necessary;
- d) to assist and advise those responsible for providing welfare facilities and to ensure coordination between them;
- e) to ensure that adequate and regular financial support is provided to seafarer's welfare facilities and services;
- f) to develop schemes and projects for the welfare of seafarers;
- g) to manage the Fund to ensure that it is solely used for the purpose for which it has been set up;
- h) to undertake such things as appear requisite and advantageous for the furtherance of the objects and functions of the Fund.

4.6.3. Fishermen Welfare Funds

The Fishermen Welfare Fund is a Corporate Body under the aegis of the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping.

It was created by the Fishermen Welfare Fund Act No. 28 of 2000 and started its activities in May 2001.

4.6.3.1. Vision

The Fund exists to promote the betterment of registered fishers and their families of both Mauritius and Rodrigues.

4.6.3.2. Mission

The Fund promotes a high quality and cost-effective service to fisher's community.

4.6.3.3. Objectives

The objectives of the fund as per the Fishermen Welfare Fund Act 2000 are:-

- a) to advance and promote the welfare of registered fishermen and their families,
- b) to manage and optimise the financial and other resources of the Fund to further the social and economic welfare of fishermen,
- c) to develop schemes and projects for the welfare of registered fishermen,
- d) to set up schemes, including schemes in respect of loan and other financial assistance, for the benefit of registered fishermen, who should make contribution under the relevant section of the Fishermen Welfare Fund,
- e) to do all such things as appear to be necessary and conducive to the promotion of the welfare of registered fishermen in general.

5.1 Trend and Challenges

- Continue the pilot aquaculture project for at least three years to obtain conclusive result.
- Transform small scale community aquaculture into successful SMES
- Enforce the Extension Unit of the aquaculture for proper monitoring of projects
- Implementation of the Bank Fisheries Management Plan.
- Incentives to fishers to operate for long campaign in the Bank Fisheries.
- Development on an Industrial Fleet
- Development of a Management Plan for the Coastal Fishery.
- Continue with the implementation of a closed season for net Fishery and Octopus Fishery.
- Phasing out of the Net Fishery.
- Studies on untapped resources in the EEZ.
- To be fully compliant with IOTC resolutions for the Tuna Fishery.
- Development of a fleet of 20 boats targeting some 1000 tons tuna and tuna-like species may be developed in the medium term.
- Development of a new single buoy Fish Aggregating Device (FAD) design that is unsinkable, more productive and that is expected to last longer ;
- Demonstration fishing and training may be imparted to operators and fishermen in the use of traps to catch deepwater shrimp (resource of 130t) found at depths ranging from 650 m to 900 m.
- The Laboratories Division aims at being a benchmark in providing analytical tests for seawater quality, ciguatoxin in fish and the enumeration and identification of harmful marine microalgae.
- Maintenance of the accreditation of the Marine Chemistry and Marine Microbiology Laboratories to MS ISO/IEC 17025 standard and the introduction of new test parameters for seawater quality.
- With respect to climate change adaptation, exploration of other techniques other than coral farming such as coral spawning to rehabilitate affected coral reefs will be looked into.
- Specific studies on seagrass meadows at specific sites around the island will be carried out giving priority to their conservation and rehabilitation.
- Mapping and estimation of the distribution of mangroves along the coast of Mauritius species-wise and identification of prospective propagation sites for mangrove propagation.
- Development of the Biotechnology Sector.

5.2 SWOT Analysis

A succinct SWOT analysis of the trend and challenges facing the Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping is shown in Table 5.1.

Table 5.1: SWOT Analysis of the Ministry

Strengths	Opportunities
<ul style="list-style-type: none">• Vast EEZ with economic potential of marine resources.• Biotechnology and generation of renewable energy from the oceans.• Preferential market access.• World class infrastructure and logistic support.• Dynamic private sector• Bilateral and multilateral agreements in place.	<ul style="list-style-type: none">• Global increase in demand for seafood.• Enhancement of marine aquaculture and marine ranching.• Use of marine ecosystems and resources within ecological limits.• Prospect for new market access for seafood.• Fostering regional and international cooperation in marine spatial planning.• Ship registration and improving trade connectivity.• Adaptation to environmental and climate changes.
Weaknesses	Threats
<ul style="list-style-type: none">• Difficulty to attract investment to harness potential benefits.• Limited human capacity.• Lack of expertise and technical capacity for aquaculture development.• Distance from market which increases production cost.• Development of a fishing fleet.	<ul style="list-style-type: none">• BREXIT including regional and international competition.• Impact of climate change on fisheries.• Unpredictable economic factors like exchange rates in currency.• IUU fishing.• Level of investment and competition.

5.3 Strategic Direction

- Optimise bank fisheries
- Rehabilitation of the lagoon
- Promote aquaculture development
- Finalisation of yacht code
- Pursue research and development of marine biotechnology
- Reorganisation of the Ministry for efficient and effective delivery of services
- Decentralisation of training courses