MINISTRY OF BLUE ECONOMY, MARINE RESOURCES, FISHERIES AND SHIPPING

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Statement from Senior Chief Executive

It gives me great pleasure to present the Annual Report of the Ministry of Blue Economy, Marine Resources, Fisheries and Shipping for the Financial Year 2019-2020.

The Mauritian fisheries sector makes a valuable contribution to economy by providing employment and generating export earnings.

Undoubtedly, the Fisheries sector is one of the important pillars of the Mauritian economy as it not only generates employment, but contributes around 20% of our national exports. It is, therefore an important source of foreign income. It is worth noting that income generated by the fishing sector represents 1.5 percent of GDP of Mauritius. Total export value from fish and fish products in 2020 amounted to Rs 20.6 billion.

The fisheries sector employs around 20,000 people directly and indirectly and ensures food security for the population. This Government is aiming at maximising the potential of the fisheries sector through a number of measures and innovative initiatives to ensure it becomes one of the most promising pillars of our economy.

This Ministry, as always, is guided by the principles of ecologically sustainable development to ensure sustainable and environmentally responsible fisheries of not only the target species, but also by-catch species, threatened, endangered or protected species and the broader marine ecosystem.

The COVID-19 pandemic has significantly impacted the lives of fishers across not only the island, but at international level as well. In response to the unparalleled havoc created by the pandemic, Government is actively working to help building the resilience of the fisher community and thus combat the lasting impacts of the COVID-19 pandemic.

On a more positive note, I am pleased to report that during the year under review, the Ministry has formulated a series of measures with a view to empowering small-scale businesses through grant schemes to artisanal fishers and semi-industrial fishing operators as well as, fiscal incentives through tax exemptions on aquaculture equipment and materials as well as the promotion of inland aquaculture.

I would like to take the opportunity to thank all the staff of the Ministry for their unflinching support, hard work and unstinted efforts, to help the Ministry honour its mandate even in the midst of this unprecedented storm, the COVID 19 Pandemic. Nonetheless, I am confident that there are better days ahead for our seafood sector.

Virendra Kumarsingh DABY
Senior Chief Executive
About this report

The Annual Report on Performance of the Ministry of Blue Economy, Marine Resources, Fisheries and Shipping has been prepared as a statutory requirement in accordance with Section (4B) of the Finance & Audit Act and in compliance with guidelines issued by the Ministry of Finance and Economic Development.

This Annual Report summarises major actions of the Ministry of Blue Economy, Marine Resources, Fisheries and Shipping from July 2019 to June 2020 and provides information on the Ministry’s performance and achievements for this particular financial year, in relation to the resources approved by the National Assembly.

The Annual Report provides information about this Ministry for its stakeholders and the public at large.

Structure of Report

**Part I** sets out the vision, mission of the Ministry, its roles and functions, its staffing and organisation structure.

**Part II** highlights the achievements of the Ministry and the implementation of budget measures and implementation of capital projects.


**Part IV** is about the strategic direction of the Ministry to realise its Vision, Mission and Objectives.
Part I - About the Ministry

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

Mission
To optimise in a sustainable manner, the immense potential or our Exclusive Economic Zone (EEZ) and develop the ocean economy as a new pole of growth.

Key Objectives
- To ensure long-term benefits of the sustainable use of marine resources;
- To develop local capacity in the blue economy;
- To improve ocean hazards management for greater climate resilience; and
- To enhance efficiency as a Maritime Safety Administration

Core values

- Integrity
- Professionalism
- Teamwork
- Quality and Innovation
- Customer Oriented
- Good Governance
- Corporate Culture Driven
- Timeliness
- Good Governance
- Corporate Culture Driven
- Timeliness
Strategy and Policy

Develop the Blue Economy as an economic pillar of Mauritius with the objective of doubling the contribution of the Blue Economy to GDP by 2025 by tapping into the economic potential of the ocean while at the same time protecting this resource.

Our Customers

The customers of the Ministry comprise, but is not limited to, the fisher community, that is, artisanal fishers, semi-industrial fishing operators, fishers involved in aquaculture projects, amongst others, the fishing industry, the maritime industry, maritime training institutions, oceanography experts, coastal zone users, ship owners, shipping agents, seafarers welfare associations, the public sector, the private sector, researchers, students, international partners/lending institutions, non-governmental organisations and the public at large.

Our Services

- 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
- Maritime Safety Administration, Ship Registration and Training of Seafarers
- Mapping of the seafloor through bathymetry maps for shallow and deep sea for characterisation and identification of seafloor structures
Our People

The Senior Chief Executive is the Accounting Officer of the Ministry. He is assisted by two Deputy Permanent Secretaries, the Director of Fisheries, the Director of Shipping and the Controller, Fisheries Protection Service.

Senior Management Team

<table>
<thead>
<tr>
<th>Designation</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Administration</strong></td>
<td></td>
</tr>
<tr>
<td>Permanent Secretary</td>
<td>Mr Virendra Kumar Daby</td>
</tr>
<tr>
<td>(From 01.07.19 to 01.12.19)</td>
<td></td>
</tr>
<tr>
<td>Permanent Secretary</td>
<td>Mr. Koosiram CONHYE</td>
</tr>
<tr>
<td>(from 02.12.19 to 30.06.20)</td>
<td></td>
</tr>
<tr>
<td>Deputy Permanent Secretaries</td>
<td>Mr. Jean Daniel Philippe LABONNE</td>
</tr>
<tr>
<td></td>
<td>Mrs. Hemila RAMNATH</td>
</tr>
<tr>
<td>Assistant Permanent Secretaries</td>
<td>Mrs. Swaleha GUNGADEEN</td>
</tr>
<tr>
<td></td>
<td>Mr. Rajesh HUMATH</td>
</tr>
<tr>
<td></td>
<td>Mr. Mohammad Belal RAJABALEE</td>
</tr>
<tr>
<td></td>
<td>Dr. (Miss) Namrata REETOO</td>
</tr>
<tr>
<td><strong>Human Resources Section</strong></td>
<td></td>
</tr>
<tr>
<td>Manager, Human Resources</td>
<td>Mr. Zaffrullah BHUGELOO</td>
</tr>
<tr>
<td>Assistant Manager, Human Resources</td>
<td>Mrs. Heeramatee BHURTUN</td>
</tr>
<tr>
<td><strong>Finance Section</strong></td>
<td></td>
</tr>
<tr>
<td>Manager, Financial Operations</td>
<td>Mr. Harish IMRITH</td>
</tr>
<tr>
<td>Assistant Manager, Financial</td>
<td>Mr. Satyawan ETWAREE</td>
</tr>
<tr>
<td>Operations</td>
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<tr>
<td><strong>Procurement Section</strong></td>
<td></td>
</tr>
<tr>
<td>Manager, Procurement and Supply</td>
<td>Mr. Chandraduth KRIPA</td>
</tr>
<tr>
<td>Assistant Managers, Procurement</td>
<td>Mr. Subash DHUWAL</td>
</tr>
<tr>
<td>and Supply</td>
<td>Mr. Lilidharry JUNKEE</td>
</tr>
<tr>
<td><strong>Fisheries Development</strong></td>
<td></td>
</tr>
<tr>
<td>Director of Fisheries</td>
<td>Mr. Devanand NORUNGEE</td>
</tr>
<tr>
<td>Assistant Director of Fisheries</td>
<td>Mrs. Yajoshi BASANT RAI</td>
</tr>
<tr>
<td>Temporary Assistant Director of</td>
<td>Mrs. Meera Satishchandra KOONJUL</td>
</tr>
<tr>
<td>Fisheries</td>
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<tr>
<td><strong>Fisheries Protection Service</strong></td>
<td></td>
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<tr>
<td>Acting Controller</td>
<td>Mr. Sad Amar BAUHADOOR</td>
</tr>
<tr>
<td>Acting Deputy Controllers</td>
<td>1. Mr. Gotham RAMKALAWON</td>
</tr>
<tr>
<td></td>
<td>2. Mr Vivekanand MUNGUR</td>
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<tr>
<td><strong>Shipping Division</strong></td>
<td></td>
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<tr>
<td>Director of Shipping</td>
<td>Mr Louis Alain Enrico DONAT</td>
</tr>
</tbody>
</table>
Staffing as at 30 June 2020

The Ministry comprised a workforce of 598 employees as listed in the table below:

<table>
<thead>
<tr>
<th>Cadre</th>
<th>Number of Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Chief Executive/Permanent Secretary</td>
<td>1</td>
</tr>
<tr>
<td><strong>Administrative Cadre</strong></td>
<td></td>
</tr>
<tr>
<td>Deputy Permanent Secretary</td>
<td>2</td>
</tr>
<tr>
<td>Assistant Permanent Secretary</td>
<td>4</td>
</tr>
<tr>
<td><strong>Technical Cadre - Fisheries</strong></td>
<td></td>
</tr>
<tr>
<td>Director of Fisheries</td>
<td>1</td>
</tr>
<tr>
<td>Assistant Director (Fisheries)</td>
<td>2</td>
</tr>
<tr>
<td>Technical grades (Fisheries)</td>
<td>56</td>
</tr>
<tr>
<td><strong>Technical Cadre - Shipping</strong></td>
<td></td>
</tr>
<tr>
<td>Director of Shipping</td>
<td>1</td>
</tr>
<tr>
<td>Secretary for Shipping Development</td>
<td>1</td>
</tr>
<tr>
<td>Deputy Director of Shipping</td>
<td>1</td>
</tr>
<tr>
<td>Technical grades (Shipping)</td>
<td>10</td>
</tr>
<tr>
<td><strong>Mauritius Maritime Training Academy (MMTA)</strong></td>
<td></td>
</tr>
<tr>
<td>Head, MMTA</td>
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<tr>
<td>Technical grades (MMTA)</td>
<td>4</td>
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<tr>
<td><strong>Competent Authority</strong></td>
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<tr>
<td>Head, Competent Authority</td>
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<tr>
<td>Technical grades (Competent Authority)</td>
<td>7</td>
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<tr>
<td><strong>Fisheries Protection Service Cadre</strong></td>
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<tr>
<td>Controller, Fisheries Protection Service</td>
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<tr>
<td>Fisheries Protection Service Technical Grades</td>
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<tr>
<td>Human Resources Cadre</td>
<td>5</td>
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<tr>
<td>Finance Cadre</td>
<td>9</td>
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<tr>
<td>Procurement and Supply Cadre</td>
<td>9</td>
</tr>
<tr>
<td>General Services Cadre</td>
<td>68</td>
</tr>
</tbody>
</table>
Gender Parity: the workforce of the Ministry comprised 72% male officers and 28% female officers.

Number of vacancies filled: 14
Number of officers who retired from the service: 25
Number of Schemes of Service prescribed: 5
Number of offices who attended local training programmes: 39
Number of officers who attended training programmed abroad: 14

Scarcity Areas

There is a dearth of qualified candidates on the labour market to fill in vacancies in the Maritime sector. This is a worldwide phenomenon and the Ministry has encountered much difficulties to fill in certain vacancies as listed below:

- **Shipping Division**
  1. Principal Marine Engineering Surveyor
  2. Marine Engineering Surveyor,
  3. Marine Engineering Inspector
  4. Nautical Surveyor, Nautical Inspector

- **Mauritius Maritime Training Academy**
  1. Head, Deck Department
  2. Head, Engineering Department
  3. Instructor, Mechanical Workshop
  4. Marine Training Officer
  5. Petty Officer

- **Fisheries Development**
  1. Fishing Boat Inspector (Engineering)
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Fishing Boat Inspector (Nautical)</td>
</tr>
<tr>
<td>3.</td>
<td>Skipper</td>
</tr>
<tr>
<td>4.</td>
<td>Second Hand Fishing (Limited)</td>
</tr>
<tr>
<td>5.</td>
<td>Deckhand/Fisherman</td>
</tr>
<tr>
<td>6.</td>
<td>Motorman/Engine Driver</td>
</tr>
</tbody>
</table>

**Measures being taken by the Ministry to address the situation:**

- review of existing Schemes of Service so as to attract more candidates and/or;
- recourse to employment on contract
Organisation Structure of the Ministry

Minister

Permanent Secretary

Administration

Parastatal Bodies

Blue Economy

Support Section

Fisheries Development

Fisheries Protection Services

Shipping Division

Mauritius Maritime Training Academy

Competent Authority Seafood

Mauritius Oceanography Institute

Seafarers’ Welfare Fund

Fishermen Welfare Fund

Fishermen Investment Trust

National Ocean Council

Human Resources Section

Finance Section

Procurement and Supply Section

Registry

Transport/ Accomodation

Albion Fisheries Research Centre

Marine Resources Division

Marine Science Division

Marine Conservation Division

Aquaculture Division

Laboratories Division (Accredited)

Licensing and Planning Division

MCS/VMS/Port State Control/Import/ Export Division

Fisheries Training Extension Centre

Marine Parks
Statutory Bodies and Other Departments operating under the aegis of the Ministry

| **Mauritius Oceanography Institute (MOI)** |  |
| **Chairperson** | Mr. Premchand Saddul |
| **Officer in Charge** | Dr. Ruby K. Moothien Pillay |
| **Mandate/Objective** | The Institute rationalises and coordinates research and development activities related to oceanography. |

| **National Ocean Council (NOC)** |  |
| **Chairperson** | Mr. Virendra Kumarsingh Daby, Permanent Secretary (as at October 2019) |
| **Mandate/Objective** | The Council has been set up administratively with the main mission of making the ocean economy an important pillar to sustain economic diversification, job creation and wealth generation. |

| **Fishermen Welfare Fund (SWF)** |  |
| **Chairperson** | Mr. Keeshorlal Gungah |
| **Officer In Charge** | Mr. Tedj Iswar Boodia |
| **Mandate/Objective** | The Fund exists to promote the betterment of registered fishers and their families in Mauritius as well as in Rodrigues |

| **Fishermen Investment Trust** |  |
| **Chairperson** | Vacant |
| **Officer in Charge** | Vacant |
| **Mandate/Objective** | The Trust aims at developing projects and schemes for the empowerment and welfare of fishers; invests directly or through a body controlled by it in fishing and other related activities, encourages and provides assistance to investors in setting up business in Mauritius either as a private entity or in partnership with the Trust. |

| **Seafarers’ Welfare Fund** |  |
| **Chairperson** | Mr. Virendra K. Daby (Jul 2019 - Dec 2019) Mr. Koosiram Conhye (Jan 2020 - Jun 2020) |
| **Officer in Charge** | Mr. V. Cahoolessur |
| **Mandate/Objective** | The Fund promotes the social and economic welfare of seafarers in Mauritius, irrespective of the nationality of the seafarer and the State in which the ship on which he is employed is registered. |

| **Mauritius Shipping Corporation Ltd** |  |
| **Chairperson** | Mr. Virendra Kumarsingh Daby, Permanent Secretary (25.11.19 to 10.12.19) Mr. Koosiram Conhye, Permanent Secretary (as from 10.12.19) |
| **Officer in Charge** | Mr. Rishi Kapoor Roonooawah, Acting Managing Director |
| **Mandate/Objective** | MSCL ensures shipping connections among the island communities of the Republic of Mauritius and to allow Government of Mauritius to fulfil its social obligations. |
Departments of the Ministry

1. **The Blue Economy**

The oceans cover more than two thirds of the Earth’s surface. The contribution of oceans towards attaining food security and poverty eradications, especially for Small Island Developing States is quite significant. The opportunities arising from oceans are immense and these include the development in fisheries, aquaculture, energy, transport and trade, tourism and marine biotechnology. However, the oceans are not limitless and in this era of climate change, it is becoming increasingly important to protect the oceans from being overexploited.

The Republic of Mauritius has a total Exclusive Economic Zone (EEZ) of 1.96 million square kilometres, a maritime zone of 2.3 million square kilometers, and a continental shelf of 396,000 square kilometers co-managed with the Republic of Seychelles. In view of making use of the untapped value of the island’s ocean resources by sustainably coordinating the use of resources, Government has decided to make the “Blue Economy” a pillar of its economic development strategy, with an objective to increase the contribution of the Blue Economy to GDP by 2025.

The Blue Economy Unit of the Ministry is responsible for devising policies and strategies for the development of the ocean economy as an economic pillar to sustain the economic development of Mauritius. It is responsible for the coordination and management of ocean related activities.

2. **Marine Resources and Fisheries**

The Marine Resources and Fisheries Division of the Ministry is mainly responsible for research and development activities with a view to increasing knowledge on the fishery resources found in the EEZ of the Republic of Mauritius so as to allow its sustainable utilisation.

- **The Albion Fisheries Research Centre**

The Albion Fisheries Research Center, (AFRC), is the technical arm of the Marine Resources and Fisheries Division. The AFRC was set up in 1982 with the assistance of the Government of Japan. It carries out applied research, development and management activities through specific Divisions/Units, namely:
The Marine Resources Division - responsible for carrying out research and development activities aimed at increasing knowledge on the fishery resources found in the Exclusive Economic Zone of the Republic of Mauritius so as to enable its sustainable utilisation.

Main activities:

a) Offshore Demersal Fishery
   - collection and analysis of catch and effort data from logbooks and estimation of yield;
   - sampling of the main fish species on landing at the port for analysis of biological parameters; and
   - assessment/monitoring of Maximum Sustainable Yield and setting of Total Allowable Catch for the different banks and quota allocation to fishing operators.

b) Coastal Fishery
   - monitoring, sampling and estimation of coastal catch data around the island of Mauritius; and
   - identification of seized fish specimens and submission of reports to allow prosecution of defaulters by the Fisheries Protection Service and Police.

c) Pelagic Fishery Project
   - record logbook data from licensed longliners and purse seiners unloading in Mauritius as well as data on transshipment by licensed and non-licensed vessels;
   - verification and processing of catch and effort data received from local and foreign licensed vessels; and
   - Analysis of tuna data for the study of exploitation rates, species composition, stock structure and spatial distribution.

The Marine Science Division - mainly responsible for the assessment of marine ecosystems through the collection of ecological data on coral reefs, mangroves and seagrass ecosystem to assess the status of marine environment and allow the sustainable management these resources.

Main activities:

- long-term coral reef monitoring at selected sites around the island;
- mapping of seagrass around the island;
- coral farming for the rehabilitation of degraded coral reefs around the island;
- assess requests and provide technical assistance for mangrove propagation;
- monitors Crown-of Thorns (COTs) outbreaks in Mauritius;
- underwater ecological surveys to provide views in connection with tourism sea-based activities or coastal development works;
• assess requests for marine scientific research and projects; and
• sensitisation of the public with respect to the importance of marine ecosystems.

❖ The Marine Conservation Division - responsible for the long-term protection and conservation of marine bio-diversity and habitats for sustainable use while maximizing economic and social benefits derived from the coastal zone.

➢ Main activities:

• manages Marine Protected Areas (MPAs) and monitoring of permissible activities in the Blue Bay Marine Park and other MPAs around the island of Mauritius;
• monitor state of corals, seagrass and associated biota, through field and underwater surveys;
• underwater ecological surveys for coastal development and tourism related projects; and
• sensitization of members of the public on MPAs, sustainable development and use of the coastal zone.

❖ Aquaculture Division - responsible for the promotion and development of aquaculture with the main objective of increasing fish production in Mauritius.

➢ Main activities:

• research on different marine and freshwater species,
• transfer of aquaculture techniques to fish farmers for the production of different fish species and improvement of aquaculture techniques for quality seed production;
• monitoring of aquaculture projects;
• release of fingerlings in the lagoon for marine ranching; and
• implementation of the cage culture project.

❖ The Laboratories Division - comprises a Marine Chemistry laboratory, a Marine Microbiology Laboratory and a Fish Toxicity laboratory which are responsible for the monitoring, protection and conservation of marine resources and safeguarding public health.

➢ Main activities:

• long-term monitoring of coastal water quality in terms of physico-chemical and microbiological parameters;
• long-term monitoring of harmful marine microalgae at established sites;
• detection of ciguatoxin in fish and conducting awareness campaigns on toxic fish present in Mauritian waters; and
• attends to cases of reported fish mortality, marine pollution and algal bloom.
The Marine Chemistry and Marine Microbiology laboratories of the Division are accredited to MS ISO/IEC 17025:2005 and are under the process of transitioning to the MS ISO/IEC 17025:2017.

**Fisheries Planning Unit**

The Planning Unit is responsible for planning and implementation of fisheries policies as well as the compilation and processing of information in the fisheries sector. Its main activities include:

- drafting and review of fishing agreements and Memorandum of Understanding (MoU) for cooperation in the fisheries sector;
- coordination with the seafood processing sector and other stakeholders; and
- Follow-up actions on international fisheries negotiations.

**Licensing Unit**

The Licensing Unit is mainly responsible for the processing and issue of fishing licences in respect of local and foreign fishing vessels. Local fishing vessels are broadly classified as vessels operating in:

- industrial banks fishery;
- semi-industrial chilled fish fishery; and
- industrial pelagic fishery (purse seine fishery)

**Import/Export Unit**

The Import/Export Unit is based at the One Stop Shop Seafood Hub, located at the Trade and Marketing Centre in the Freeport Zone, Mer Rouge, Port Louis. It mainly controls the import and export of fish and fish products to ensure that:

- good quality and wholesome fish and fish products are marketed in the country;
- there are fair trade practices;
- the products intended for import or export do not originate from illegal sources; and
- imported fish and fish products conform to international requirements (WTO, Codex Alimentarius and the EU).
Port State Control Unit/Vessel Monitoring System

The Port State Control Unit, also based at the One Stop Shop - Seafood Hub, is responsible for the implementation of conservation and management measures to:

- combat Illegal, Unreported and Unregulated (IUU) fishing;
- keep the port free of illegal fishing boats/vessels; and
- ensure that only legally caught fish are traded.

Fisheries Protection Service

The Fisheries Protection Service, is responsible for the enforcement of fisheries legislations and monitoring of the fishing and fishing related activities for the protection and conservation of fishing resources. The FPS comprises 15 Fisheries Posts around the island including one in Agalega.

- **Main activities:**
  - coast and afloat patrols, including participation in joint surveillance programme in the Exclusive Economic Zone of the Republic of Mauritius;
  - supervision of 61 fish landing stations, sale points and fishing port;
  - collection of fisheries data;
  - registration and documentation of fishermen/fishing boats;
  - issue/renewal of net fishing and fishmongers’ licences;
  - issue of clearances for importation of fish and fish products at the SSR International Airport and at the port;
  - secure fishing gears during closed period for net fishing;
  - monitoring of activities in the Marine Parks; and
  - prosecuting Court cases.

Competent Authority Seafood

The Competent Authority Seafood is responsible for the verification and certification of fish and fish products for export to Member States of the European Union (EU) as well as to non-EU countries.

- **Main activities:**
  - registration of fish business operators involved directly or indirectly in the export of fish and fish products to EU and non-EU countries;
  - issue of export health certificates for all consignments of fish and fish products according to the importing country’s certification requirements;
• inspection of consignments of fish and fish products for compliance prior to exportation;
• inspection of fishing vessels providing raw material to registered processing plants prior to departure for fishing campaign;
• inspection of landing sites for whole frozen/brine-frozen tuna and pelagic/demersal fish; and
• inspection and random organoleptic evaluation of fish and fish products imported for further processing before re-exportation.

3. The Shipping Division

The Shipping Division is responsible for all Maritime Safety, Maritime Security, and Prevention of Pollution of the Marine Environment from ships. It ensures compliance with International Laws and Conventions on Maritime Safety, Security and Maritime Environment. The Shipping Division is also responsible for ensuring that all vessels registered under the Mauritius Flag and all foreign vessels plying in the Mauritian territorial waters comply with international standards and for the development of the Mauritius Shipping Sector.

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. According to amendments to the Convention, all member States are required to have a quality standard 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 transited to the new ISO 9001:2015 quality management system standards in March 2018 and has successfully passed the third surveillance audit conducted by the Mauritius Standards Bureau on 02 July 2020.

Training Institutions

❖ The Mauritius Maritime Training Academy (MMTA)

Previously known as the Sea Training school, the MMTA is an approved maritime training institution for providing maritime courses per the requirements of the International Convention on the Standards of Training, Certification and Watch keeping for Seafarers (STCW) 1978, as amended. The MMTA is ISO Certified (ISO 9001:2015).
Regular courses delivered to prospective Seafarers:

- Basic Safety Training;
- Crowd Management and Safety Training for Personnel Providing Direct Services to Passengers in Passenger Spaces;
- Crisis Management and Human Behavior;
- Proficiency in Security Awareness training;
- Proficiency in Designated Security Duties;
- Refresher Course in Basic Safety Training, Crowd Management and Crisis Management Training;
- Rating Forming Part of a Navigational Watch;
- Refresher Training for Rating Forming Part of a Navigational Watch;
- Rating Forming Part of an Engineering Watch; and
- Refresher Training for Rating Forming Part of an Engineering Watch.

The Fisheries Training and Extension Centre (FiTEC)

The FiTEC is operational since October 2004. This training institution was set up through a grant from the Government of Japan. It is responsible to design, develop and implement training programmes for stakeholders in the fishing industry in order to meet their training needs consistent with fisheries development goals of the Government. The FiTEC plays a leading role in developing capabilities for the sustainable development of the fisheries resources and conservation of marine environment. The FiTEC also designs, develops, sets, re-sets and maintains Fish Aggregating Devices (FADs) for the benefits of artisanal fishers. Fishers are, thus, encouraged to fish around the FADs where fish is more abundant. This allows the marine ecosystems within the lagoons to rehabilitate and at the same time, the supply of fresh fish on the market is increased.

Training courses offered:

- **The General Course for Fisher (GCF)** – to provide artisanal fishermen with basic knowledge and skills to fish outside the lagoon and around Fish Aggregating Devices in an efficient, responsible and safe manner; and

- **Fish Handling, Preservation and Marketing for fishmongers** – to provide licensed fishmongers with the knowledge and abilities to maintain the freshness and quality of fish sold so as to ensure that the fish is safe for human consumption.
Part II – Achievements of the Ministry

Acquisition of Fishing Vessel Investigator II

Fishing vessel “Investigator II” was acquired to support training and research for the development of the blue economy sector. “Investigator II” was constructed at the Stebercraft Pty Ltd. boatyard, Australia under co-funding by the Government of Mauritius and Government of Australia. The vessel was launched by the Hon. Prime Minister on 05 March 2020.

Fisheries Division
➢ Coastal Fishery:

- 1083 fish landings were monitored at 25 fish landing stations around the island of Mauritius - fish specimens examined and reports submitted to the National Coast Guard, Fisheries Protection Service, Anti-Piracy UNIT and Mauritius Police Department for prosecution, in alleged illegal fishing cases.
- Identification/examination of fish specimens and submission of reports to the Toxicity Laboratory- AFRC.
## Monitoring of Fishery Activities

<table>
<thead>
<tr>
<th>Fishery Activity</th>
<th>Number of vessels monitored</th>
<th>Total Catch (Tonnes)</th>
<th>Fish Species</th>
<th>Sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pelagic</td>
<td>3 Purse seiners operating under the Mauritian flag</td>
<td>25,212</td>
<td>tuna</td>
<td>Morphometric sampling programmes carried out on 2981 specimens</td>
</tr>
<tr>
<td></td>
<td>11 Longliners involved in the semi-industrial fishery both inside and outside the EEZ under Mauritius-flagged</td>
<td>513.8</td>
<td>swordfish and tuna species</td>
<td>catch sampled for length frequency data.</td>
</tr>
<tr>
<td></td>
<td>Foreign-flagged longliners operating under a Mauritian fishing licence</td>
<td>10,155</td>
<td></td>
<td>187 logbooks collected and about 3,000 albacore tuna sampled for length frequency.</td>
</tr>
<tr>
<td>Banks Fishery</td>
<td>2</td>
<td>478.5</td>
<td></td>
<td>3 sampling exercises, involving 1,191 specimens, conducted for Lethrinus mahsena – (Dame Berri) (frozen).</td>
</tr>
<tr>
<td>Saint Brandon Fishery</td>
<td>16</td>
<td>289.0</td>
<td></td>
<td>72 landings/logbooks verified and 6 sampling exercises, involving 1,021 specimens, conducted for frozen fish.</td>
</tr>
<tr>
<td>Semi-Industrial Chilled Fish Fishery</td>
<td>21</td>
<td>558.7</td>
<td></td>
<td>165 landings/logbooks verified and 15 sampling exercises involving 2,052 specimens conducted for chilled fish.</td>
</tr>
<tr>
<td>Deepwater Snapper/ Grouper Fishery</td>
<td>11</td>
<td>441.1</td>
<td></td>
<td>61 landings/logbooks verified and 5 sampling exercises involving 1,081 specimens conducted for chilled fish.</td>
</tr>
</tbody>
</table>
Monitoring of Octopus Fishery

Octopus fishery represents around 7% of annual artisanal catch in Mauritius. Fishing of octopus was closed from 15 August to 15 October 2019 to ensure the preservation and sustainability of this resource. The closed season exercise resulted in an increase of the maximum weight of individual octopus from about 3000g to about 5 250g after the closed period.

No. of units of exhibits received during the closed season
➢ Coral Reef Monitoring

The long-term coral reef monitoring exercise was carried out at 7 different sites and the following was observed:

- **Belle Mare (Stations I)** - live coral cover increased from 15.3 % to 18 %.
- **Belle Mare (Station II)** - live coral cover increased from 35.5 % to 42.8 % in 2019 but reduced to 21.6 % in 2020.
- **Trou aux Biches (back reef)** - live coral cover decreased from 12.5% to 7.4 % in 2019 but increased to 12.3 % in 2020.

➢ Fish Visual Census Survey

The diversity of reef fishes is generally indicative of the health of the reef and fish abundance and diversity are also observed during the monitoring of coral reefs exercise. Processed data on the fish count per family at the different stations is presented in the table below:
<table>
<thead>
<tr>
<th>Site</th>
<th>Stations</th>
<th>Pomacentridae</th>
<th>Chaetodontidae</th>
<th>Acanthuridae</th>
<th>Labridae</th>
<th>Scaridae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trou aux Biches</td>
<td>Back reef</td>
<td>XXX</td>
<td>XX</td>
<td>XXX</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Trou d’eau Douce</td>
<td>Back reef</td>
<td>XX</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Trou d’eau Douce</td>
<td>Shore reef</td>
<td>XX</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Bel Ombre</td>
<td>Back reef</td>
<td>XX</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Belle Mare</td>
<td>Station I (Back reef)</td>
<td>XX</td>
<td>*</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Belle Mare</td>
<td>Station II (Back reef)</td>
<td>XX</td>
<td>X</td>
<td>XX</td>
<td>*</td>
<td>XX</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site</th>
<th>Stations</th>
<th>Pomacentridae</th>
<th>Chaetodontidae</th>
<th>Acanthuridae</th>
<th>Labridae</th>
<th>Scaridae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belle Mare</td>
<td>Station I</td>
<td>XXX</td>
<td>*</td>
<td>XXX</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Belle Mare</td>
<td>Station II</td>
<td>XXX</td>
<td>X</td>
<td>XXX</td>
<td>X</td>
<td>XX</td>
</tr>
<tr>
<td>Trou aux Biches</td>
<td>Back reef</td>
<td>XXX</td>
<td>*</td>
<td>XXX</td>
<td>X</td>
<td>XX</td>
</tr>
<tr>
<td>Albion</td>
<td>Back reef</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Table 1 - Fish Visual Census (2019 to 2020)

* Not observed, - not monitored, X – 0-10, XX- 10-50, XXX – 50-100, XXXX - >100
➢ **Coral Reef Network**

The Terms of Reference for the Coral Reef Network (CRN) was reviewed and finalised by the members of the Coral Reef Network. The Marine Science Division is responsible for the coordination of the CRN which comprises other Ministries, local universities, para-statal bodies, NGOs, the fisher community and the private sector. The CRN aims at adopting effective, coherent, coordinated and collaborative strategies for conservation of the marine biodiversity and promote sustainable economic growth and livelihood in line with the Sustainable Development Goal 14.

➢ **Control of Crown-of-thorns (COTS)**

Following several reported outbreaks of the coral-eating starfish since 2017, Crown-of-thorns (COTS), the CRN prepared a protocol to control COTS outbreaks in Mauritius. The purpose of this protocol is to provide a guideline to help local authorities (through the Coral Reef Network) to take appropriate actions to control COTs outbreaks and save our corals.

➢ **Underwater Ecological Surveys**

Prior to giving clearances in respect of sea-based activities or coastal development works, underwater ecological surveys are carried out to assess the impact of the projects the sensitive marine ecosystems.

17 requests for firework display and five requests to conduct regatta outside Marine Protected Areas were processed. 30 underwater ecological surveys were conducted in connection with embarkation points, swimming zone demarcation, snorkeling zone, anti-drowning zones and illegal pontoon.
➢ Seagrass Project

The Ministry is implementing the seagrass project entitled ‘Assessment of Blue Carbon Ecosystem (Seagrass) around the island of Mauritius: Relevance for Marine Spatial Planning’ under the Western Indian Ocean Strategic Action Programme (WIO-SAP) funded by the Nairobi Convention to the tune of USD 190,150.00. The project will span over a period of 2 years and will focus on seagrass mapping and blue carbon. In-situ reconnaissance surveys of seagrass meadows have started in the south east region and at Albion in the West.

Sea grass survey at Albion

Stranded Marine Animals

A total of 5 cases of stranded marine turtles were reported during 2019-2020. Two marine turtles were successfully treated. One whale and 4 dolphins were reported dead and were disposed at Mare Chicose Landfill site. One stranded elephant seal was also reported ashore in January 2020 and the marine mammal was monitored until it left the shores of Mauritius.

Treatment of marine turtle at AFRC

Cutting operation to dispose of dead whale at Bel Ombre

➢ Sensitisation/Training Programmes
150 Women community attended lectures on oceanographic impacts on marine ecosystem;

In November 2019, the Marine Science Division conducted a training session for undergraduate students of the University of Mauritius focusing on marine turtle protection and conservation as well as case studies of debilitated marine turtles that have been treated and rehabilitated.

Hands-on Training on Marine turtle to UOM Students

➢ Marine Conservation Division

- 226 permits were issued/renewed for permissible activities in Marine Protected Areas (MPAs) amounting to Rs 1,790,200.
- 29 Environmental Impact Assessment (EIA) reports, amongst which 7 coastal, were processed and views submitted to the Department of Environment.
- 20 applications for Ramsar clearance were processed and views of the Ministry were submitted to the National Ramsar Committee.
- The annual long term monitoring of coral reefs in the Blue Bay Marine Park (5 stations) and the Balaclava Marine Park (5 stations) were completed for 2019.
- 22 ad-hoc ecological surveys were carried out in respect of coastal development projects.

➢ Coral Reef Ecosystem Monitoring of Balaclava and Blue Bay Marine Park

Long-term monitoring the coral reefs ecosystem of the Blue Bay and Balaclava Marine Parks is being carried out on an annual basis since the establishment of permanent stations in 1996.
- **Monitoring survey results for the Blue Bay Marine Park** – the percentage of live coral cover has increased at stations 1 and 4 while it has significantly decreased at stations 2 and 3. Station 5, located in the lagoon at La Cambuse which is a high energy zone, is dominated by macroalgae.

- **Monitoring Survey results for the Balaclava Marine Park** - an increase in live coral cover has been recorded at Stations 1, 2 and 4 while at Stations 3 and 5, a slight decrease has been observed when compared to 2018-2019.

A coral nursery with underwater tables was set up using the rope technique in the Balaclava Marine Park.

*Branching Acropora sp. at Blue Bay Marine Park*

*Acropora sp. (Tabular form) at Blue Bay Marine Park*

*Acropora sp. (Tabular form) at Blue Bay Marine Park*

*Fungia sp. coral (Mushroom Coral) nested within Pavona sp. Corals*

*Marine sponge within a field of Acropora sp.*

*Coral nursery setting up at Balaclava*
➢ **Aquaculture Division**

- Under the Marine Ranching Programme for stock enhancement, a total of 100,000 sea bream fingerlings that was produced in the hatchery at the AFRC were released at Albion, Sable Noire, Poudre d’Or, Poste la Fayette, Riviere Noire, Balaclava and Le Morne.

- 6,495 berri rouge fingerlings were sold to 9 small scale fish farmers and 4,965 fingerlings were sold to 19 individuals for culture in an aquaponic system.

- Some 3,780 berri rouge fingerlings were distributed free of charge to 73 individuals for aquaculture activities in tanks / small size ponds.

- 4,030 berri rouge fingerlings were distributed free of charge to 63 individuals for aquaponic purposes.

- A total of 136,635 freshwater prawn juveniles were produced in the hatchery at AFRC and were sold to 107 individuals. Some 2,000 freshwater prawn juveniles were stocked in pond at AFRC to constitute as broodstock.

- Technical assistance and support were provided to 83 individuals who called at the Albion Fisheries Research Centre for information on aquaculture projects.

➢ **Laboratories Division**

- 360 seawater samples collected from the 26 permanent representative sites including sewage outfalls, marine parks, port area and aquaculture sites with 2,600 analyses conducted for physico-chemical parameters.

- 414 seawater samples collected from the 13 selected public beaches and 828 analyses performed to determine the level of coliform bacteria.

- 87 samples comprising macro-algae and/or seawater collected from 12 representative sites and examined for harmful marine microalgae.

- 27 fish samples were screened for ciguatoxin. In view of updating the list of toxic fish in Mauritius, ciguatoxin tests started in June 2020 on fish samples collected from the banks and the artisanal fishery.

- Ad-hoc cases attended to: six reported cases of Marine Pollution at Grand Baie (2 sites), Deux Frères, Blue Bay, Sable Noire and Pereybere and one reported case of fish kill at the Mariculture site of Ferme Marine de Mahebourg Limited (FMML).

- A poster on “The Temporal, Seasonal and Spatial Distributions of Reported Fish Kills in Mauritius” was presented at the 11th Western Indian Ocean Marine Science Association Scientific Symposium held from 1st – 6th July 2019, at the University of Mauritius.
Planning Unit

• ‘Canotte’ Scheme - 49 new canottes were registered under the scheme. The Canotte Scheme provides for a grant of up to Rs 200,000 to registered fishers for the purchase of a fibre-glass fishing boat of length 8 – 12 m for off-lagoon fishing.

Signature of Agreements

(i) 28 November 2019: signature of a Memorandum of Understanding with the Commonwealth Scientific and Industrial Research Organization (CISRO) of Australia to.

Objective: encourage joint research activities especially in sectors of the ocean economy, understanding marine ecosystems and the way humans use them, marine fisheries and aquaculture, ocean renewable energy, remote sensing and blue carbon.

(ii) 20 February 2020: signature of a “Déclaration d’intention pour la coopération sur L’Economie Bleue” with l’Institut de Recherche pour le Développement (IRD).

Objective: to establish a strategy focused on sustainable development, to promote and develop cooperation and technical assistance between France and Mauritius in the field of the blue economy. Cooperation will focus on research, training, expertise and scientific information.

Licensing Unit

• Three licences issued to three bank fishing vessels active on the Saya de Malha and Nazareth Banks;
• 31 licences issued to boats engaged in semi-industrial fishery;
• Five new fishing boats joined in the semi-industrial fishery;
• One fishing licence issued to a new boat operating in the Advanced Coastal Fishery;
• 4 licences issued to 3 purse seiners and one supply vessel active in the pelagic fishery;
• 189 Foreign Fishing Licences/Extension Licences issued in respect of longliners not operating under Fishing Agreements. Nationalities of longliners: Taiwanese, Chinese, Korean, and Oman;
• 16 licences were issued to boats operating under Fishing Agreement between the Republic of Mauritius and the Republic of Seychelles;
• 51 licences were issued to purse seiners and longliners operating under the Fishing Agreement between the Republic of Mauritius and the European Union;
• One licence was issued to a longliner operating under the Fishing Agreement between the Republic of Mauritius and the Federation of Japan Tuna Fisheries Cooperative Association (JTFCA) for Fishing in Mauritian waters.
• Eight Letters of Intent issued to fishing promoters in respect of fishing development projects.

➢ Import/Export Unit

• 178 individuals/companies were registered as importers for the import of fish and fish products;
• 2,092 landing permits were issued;
• 84,186 tons of tuna were imported for processing and 16,509 tons of fish and fish products were imported for direct consumption;
• 74,171 tonnes of fish and fish products (salted snoek, frozen fish, chilled fish, canned fish, tuna in jars, tuna in pouch, frozen pre-cooked tuna, frozen processed tuna, fish meal, fish oil) were exported;
• 4,358 export authorisations were issued

<table>
<thead>
<tr>
<th>TYPE</th>
<th>PRODUCT</th>
<th>Total (Tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chilled</td>
<td>Fish</td>
<td>111.6</td>
</tr>
<tr>
<td></td>
<td>Crustacean</td>
<td>17.9</td>
</tr>
<tr>
<td></td>
<td>Cephalopod</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>Shell fish</td>
<td>17.9</td>
</tr>
<tr>
<td>Frozen</td>
<td>Fish</td>
<td>5,324.0</td>
</tr>
<tr>
<td></td>
<td>By-catch</td>
<td>1,832.4</td>
</tr>
<tr>
<td></td>
<td>Controlled fish sp</td>
<td>8.9</td>
</tr>
<tr>
<td></td>
<td>Crustacean</td>
<td>1,881.5</td>
</tr>
<tr>
<td></td>
<td>Cephalopod</td>
<td>1,348.0</td>
</tr>
<tr>
<td></td>
<td>Shell fish</td>
<td>100.4</td>
</tr>
<tr>
<td>Frozen Prepared Products</td>
<td>Fish</td>
<td>1,227.4</td>
</tr>
<tr>
<td></td>
<td>Cephalopod</td>
<td>30.3</td>
</tr>
</tbody>
</table>
## Export of fish and fish products – Period July 2019 – June 2020

<table>
<thead>
<tr>
<th>Products</th>
<th>Total (Tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salted Snoek</td>
<td>51.6</td>
</tr>
<tr>
<td>Chilled Fish</td>
<td>16.6</td>
</tr>
<tr>
<td>Chilled Fish from Aquaculture</td>
<td>1 246.6</td>
</tr>
<tr>
<td>Fish Meal (dry)</td>
<td>12 052.0</td>
</tr>
<tr>
<td>Fish Oil</td>
<td>8 139.0</td>
</tr>
<tr>
<td>Frozen/precooked</td>
<td>9 843.0</td>
</tr>
<tr>
<td>Frozen/processed</td>
<td>3 325.0</td>
</tr>
<tr>
<td>Frozen Fish</td>
<td>2 694.0</td>
</tr>
<tr>
<td>Tuna in pouch</td>
<td>7 884.0</td>
</tr>
<tr>
<td>Tuna in Jars</td>
<td>367.8</td>
</tr>
<tr>
<td>Canned tuna</td>
<td>38 321.0</td>
</tr>
<tr>
<td>Live marine Ornamental fish</td>
<td>3 177.0</td>
</tr>
</tbody>
</table>

### Port State Control Unit/Fisheries Monitoring Centre

- 2 observers participated in the Observer Programme on board Purse Seiners FV Belle Rive and FV Belle Isle involving coverage of 139 days at sea.
Observers participated in the Regional Observer Scheme on board 2 Mauritian Long liners (Félicité Mackenzie and FV Clairabelle Jayde) for 4 trips involving coverage of 57 days at sea.

- 390 departure clearances for local semi-industrial fishing boats were issued.
- 1,425 Processing Statements were validated and endorsed.
- 630 Catch Certificates were validated and endorsed.
- 25 Swordfish Statistical Documents were verified, validated and endorsed.
- 217 Big Eye Statistical Documents were validated and endorsed for Mauritian flagged vessels.

Certificates issued from 01 July 2019 to 30 June 2020

<table>
<thead>
<tr>
<th>No.</th>
<th>Certificate Type</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EU Export Health Certificates</td>
<td>2398</td>
</tr>
<tr>
<td></td>
<td>Non-EU Export Health Certificates</td>
<td>1151</td>
</tr>
<tr>
<td></td>
<td>Export Health Certificates</td>
<td>3549</td>
</tr>
<tr>
<td>2</td>
<td>Official audits carried out at EU-approved establishments</td>
<td>28</td>
</tr>
<tr>
<td>3</td>
<td>Registration of Fish Business Operators</td>
<td>33</td>
</tr>
<tr>
<td>4</td>
<td>Registration of new Fish Business Operators</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>EU-approved establishments</td>
<td>20</td>
</tr>
</tbody>
</table>

- 186 Big Eye Re-Export Certificates were validated and endorsed for foreign flagged vessels.
- 390 callings, boarding and inspection of local fishing vessels were recorded.
- 946 callings, boarding and inspection of foreign fishing vessels were recorded.
- 13 callings of Patagonian Toothfish vessels were recorded.
- 2,291 MT of Patagonian Toothfish were transshipped.
- 10 callings of Trawlers were recorded.

Fisheries Protection Service

- No. of cases prosecuted: 46
- Illegal fishing gears seized: 295
- Length of nets seized: 32,027 metres
- No of pick up cases: 255
- Number of cases reported by the Flying Squad: 217
Competent Authority Seafood

Inspection and Certification of fish and fish products for export

Shipping Division

- Compliance to International Maritime Conventions

(i) Ratification – MARPOL Annex VI

A draft Merchant Shipping (Prevention of Air Pollution from Ships) Regulations 2020 has been prepared in consultation with the relevant stakeholders to enforce and implement the requirements of Annex VI to the International Convention for the Prevention of Pollution from Ships, (MARPOL).

Note: The Republic of Mauritius acceded to Annex VI of the MARPOL on 23 March 2020. The main objective is to regulate the emission into the atmosphere of specified pollutants such as sulphur oxides, nitrogen oxides, ozone-depleting substances and volatile organic compounds, from all Mauritius ships of 400 gross tonnage or above, wherever they may be or any other ship within the territorial sea of Mauritius.

(ii) New Merchant Shipping Regulations

The Merchant Shipping (Security of Ships) Regulations 2019, made by the Minister under Section 228 of the Merchant Shipping Act, 2007 came into force on 1 July 2019. These Regulations enforce the ISPS Code on the Security of ships as well as for the personnel onboard.

(iii) Promulgation of information related to Maritime Safety, Security and Protection of the Maritime Environment to the Shipping Community

The Ministry issued 20 Merchant Shipping Notices to the Shipping Community mainly in relation to the Covid-19 pandemic.
(iv) IMO Member State Audit Scheme

The International Maritime Organization Member State Audit Scheme (IMSAS) Audit creates a basis to assess the extent to which a Member State complies with its obligations set out in the various IMO instruments to which it is a Party.

Mauritius, like all other IMO member States, was subject to the mandatory IMSAS Audit from 08 to 17 February 2020, by three IMO nominated auditors from Italy, Norway, and the IMO Secretariat. The scope of the audit included the flag, coastal and port State obligations of Mauritius in relation to the applicable IMO instruments to which it is a Party.

(v) Accreditation and Monitoring of Recognised Organisations (ROs).

Flag State like Mauritius, are required under the SOLAS Convention, to conduct surveys and certifications of ships under its flag. This exercise may be delegated to RO’s in which case the flag State should issue Guidelines for approval, monitoring and issue of instructions to the RO’s. Three Guidelines have been produced in this context.

- Maritime Safety

  (i) Maritime Communication Services

On 10 March 2020, the Ministry signed a new agreement Mauritius Telecom as service provider for provision of Maritime Safety Information by means of High Frequency transceiver to local fishing vessels fishing in Mauritian territorial waters and fishing banks. Note: Mauritius is signatory of the International Convention for the Safety of Life at Sea (SOLAS) and as such is required to provide the Global Maritime Distress Safety System (GMDSS) services

  (ii) Long Range Identification and Tracking of Ships

The Mauritius Long Range Identification and Tracking of Ships (LRIT) National Data Centre, which is based in the United Kingdom, successfully passed the audit the period 22 January 2019 to 21 January 2020. The audit is conducted annually by the International Mobile Satellite Organization.
In June 2020, the Ministry secured a contract with Kordia Pty Ltd for the purchase AIS data to support the implementation of the e-Broadcast system. This system allows visibility of the location and details of ships in the Mauritius search and rescue region. The AIS data is a combination of commercial satellite AIS data and free data sourced from Norwegian satellites and the International Space Station (ISS).

(iii) e-Broadcast System

The International Maritime Organization (IMO) has developed the International Convention “Ballast Water Management Convention” and adopted the “2011 Guidelines for the Control and Management of Ships' Biofouling to Minimize the Transfer of Invasive Aquatic Species” with a view to addressing the issue of transfer of harmful aquatic organisms and pathogens through ships’ ballast water and sediments and ships’ biofouling,
As a member state of IMO, Mauritius through the Shipping Division of the Ministry of Blue Economy, Marine Resources, Fisheries and Shipping has developed the following main projects:

(i) **Ballast Water Management Project for Port Louis and Port Mathurin**

The field work component of the Port Biological Baseline Survey (PBBS) of Port Mathurin was completed in November 2019.

*Some of the fish species recorded from the survey (M.O.I 2019)*

*Some of the coral species recorded from the survey (M.O.I 2019)*
(ii) **Ships’ Bio-fouling Project**

The “Ships’ Bio-fouling” survey in Port-Louis Harbour project started in 2016 and is on-going.

![Diagram of Ships' Biofouling Project Phases](image)

*Figure 38 - The different phases of the Ships' Biofouling Project*

The consultant working on the Ships’ Biofouling project conducted two visits to Mauritius in March and July 2019 respectively. The third visit to Mauritius which was scheduled for April 2020 could not take place due to the COVID-19 pandemic. Instead, the consultant conducted online training sessions on 02 July and 14 July 2020 on the “Dispersion Model”. This training provided the scientists from the MOI and the Shipping Division hands-on training on processes and structure, validation and sensitivity analysis of the model.

The survey of vessels under Phase 2 of the project has been completed. Two vessels were surveyed in-water and 1 vessel in dry-dock.
Maritime Training and Certification

(i) New Training Guidelines developed:

<table>
<thead>
<tr>
<th>SN</th>
<th>Guidelines</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Guidelines for the training of New Surveyors/Inspectors.</td>
<td>The guidelines cover all the technical requirements for the new recruits to acquaint themselves with the requirements for conducting Flag State Surveys and Inspections and also to familiarise them with all IMO Conventions.</td>
</tr>
<tr>
<td>2</td>
<td>Guidelines for the pre-Sea training of seafarers. (Deck and Engine)</td>
<td>Guidelines for cruise vessel owners to recruit Deck and Engine room ratings from Mauritius</td>
</tr>
</tbody>
</table>

(ii) New Training Model Course for Pleasure Craft Skippers in collaboration with Tourism Authority - Following several casualties within the lagoons involving pleasure Crafts, the Shipping Division provided assistance to the Ministry of Tourism and Tourism Authority for the review the training programme so as to enhance the training of Pleasure Crafts’ skippers.

Workshops/Training/Events

(i) A 2-week Marine Casualty Investigation training was organized from 11 to 22 November 2019 for officers of the Shipping Division in view of preparation for the IMO Member State Audit Scheme (IMSAS) Audit.

The training course was conducted by two IMO consultants namely:

(a) Dr Kevin Ghirxi, Head of Marine Safety Investigation, Marine Safety Investigation Unit, Malta; and
(b) Capt. Babacar Diop, Maritime Safety and Marine Environmental Consultant from Senegal.
(ii) One half-day workshop at the Seafarers’ Centre (Trevesa House), Mer Rouge, Roche Bois, on 26 September 2019 to commemorate the World Maritime Day 2019. The theme chosen by the International Maritime Organisation (IMO) was “Empowering Women in the Maritime Community”. The theme was selected to provide an opportunity to raise awareness of the importance of gender equality, in line the United Nations’ Sustainable Development Goal 5 – “Achieve Gender Equality and Empower all Women and Girls” and to highlight the important, yet under-utilized contribution of women within the maritime sector.

- **Statistics for the period 01 July 2019 – June 2020**

![Graph showing number of vessels registered under the Mauritius Flag from 2007 to 2020.](image)

*No. of Vessels registered under the Mauritius Flag*
Types of Vessels registered under the Mauritius Flag

No of Casualties at Sea (2000 to June 2020)

Port State Control (2006 to 2020)
Surveys and Inspection Progression (2006 to June 2020)

<table>
<thead>
<tr>
<th>SN</th>
<th>Service</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Endorsement Certificates Issued</td>
<td>185</td>
</tr>
<tr>
<td>2</td>
<td>Attestation Certificates Issued</td>
<td>78</td>
</tr>
<tr>
<td>3</td>
<td>Certificates of Competency/Proficiency Issued</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>Ship’s Cook Certificates issued</td>
<td>27</td>
</tr>
<tr>
<td>5</td>
<td>Minimum Safe Manning Certificates</td>
<td>43</td>
</tr>
<tr>
<td>6</td>
<td>Port Clearances Issued</td>
<td>3029</td>
</tr>
<tr>
<td>7</td>
<td>Discharge Books Issued</td>
<td>822</td>
</tr>
<tr>
<td>8</td>
<td>Vessels registered under the Mauritian Flag</td>
<td>128</td>
</tr>
<tr>
<td>9</td>
<td>Surveys and Inspections</td>
<td>63</td>
</tr>
</tbody>
</table>

Other Services provided by the Shipping Division

Mauritius Maritime Training Academy (MMTA)

❖ No of seafarers trained: 451 (No training was carried out during the lockdown period from 20 March to 30 June 2020).

Dealing with the COVID-19 pandemic

The COVID-19 pandemic has caused immediate and devastating consequences worldwide including Mauritius. This has led to serious consequences for fish and seafood trade, especially products destined for the food industry. The measures undertaken by the Ministry for tacking COVID-19 pandemic include:
**Fisheries Division**

- Financial support to fishermen to compensate for days when fishers were not able to undertake fishing activities during confinement;

- Some Departments of the Ministry namely: the Licensing, Import/Export and Port State Unit were fully operational during the lockdown period so as to provide all the necessary support to fishing companies and stakeholders;

- Import permits were issued as per routine with custom clearances. Request from Importers not yet registered were considered with payment to be effected after confinement;

- The offshore demersal fisheries were encouraged to continue their fishing activities so as to ensure adequate supply of fish on the market. Fishermen on board these semi-industrial vessels were provided with adequate protective equipment and were sensitized on the precautionary and sanitary measures to be adopted during their fishing trips;

- The Monitoring Control and Surveillance (MCS) System /Vessel Monitoring System (VMS) were working on full regime during lockdown period so as to deter Illegal Unreported and Unregulated (IUU) fishing;

- The “Covid-19 and food safety: guidance for food businesses” issued by the Food and Agriculture Organization (FAO) and the World Health Organization (WHO) were forwarded to all Fish Business Operators (FBOs) registered with the Competent Authority of this Ministry and establishments were requested to adopt all the guidance and measures at their place during the pandemic;

- As a precautionary measure the import of live fish from China, Iran and Korea were banned during the confinement period;

**Shipping Division**

- Submission of documents/certificates by email such as Exemption/Endorsements/application forms and others were devised and put in service;

- Methods and approvals for remote surveys by RO’s were discussed with Owners and RO’s and where applicable have been used so as to allow Mauritius flagged ships to operate throughout the world;

- During the lockdown period, 29 Exemption Certificates were issued to various Mauritius flag vessels through email.
## Part III – Financial Performance

### Statement of Revenue

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual (Rs)</td>
<td>Estimates (Rs)</td>
<td>Actual (Rs)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Fishing Vessel Licence</td>
<td>81,540,170</td>
<td>77,300,000</td>
<td>85,368,385</td>
</tr>
<tr>
<td>2</td>
<td>Ship's Registration Fee</td>
<td>27,973</td>
<td>250,000</td>
<td>230,278</td>
</tr>
<tr>
<td>3</td>
<td>Annual Fees (Shipping)</td>
<td>6,950,621</td>
<td>7,190,000</td>
<td>5,121,591</td>
</tr>
<tr>
<td>4</td>
<td>Processing fees for Inspection</td>
<td>4,551,600</td>
<td>5,050,000</td>
<td>4,425,000</td>
</tr>
<tr>
<td>5</td>
<td>Permits/ Fees to Operate in Marine Protected Areas</td>
<td>2,678,300</td>
<td>2,700,000</td>
<td>758,800</td>
</tr>
<tr>
<td>6</td>
<td>Fees for services provided at the Competent Authority</td>
<td>5,125,600</td>
<td>5,150,000</td>
<td>4,887,800</td>
</tr>
<tr>
<td>7</td>
<td>Sale of Produce</td>
<td>436,196</td>
<td>550,000</td>
<td>168,392</td>
</tr>
<tr>
<td>8</td>
<td>Miscellaneous Sales of Goods and services (Fisheries)</td>
<td>8,877,985</td>
<td>9,500,000</td>
<td>6,724,654</td>
</tr>
<tr>
<td>9</td>
<td>Miscellaneous Sales of Goods and Services (Shipping)</td>
<td>5,628,824</td>
<td>5,180,000</td>
<td>5,941,291</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>115,817,269</td>
<td>112,870,000</td>
<td>113,626,191</td>
</tr>
</tbody>
</table>

**Statement of Revenue of the Ministry**

![Bar chart showing revenue of different categories over two years](image-url)

**Statement of Revenue of the Ministry**
### Statement of Expenditure for Vote 19-1 Ocean Economy

<table>
<thead>
<tr>
<th>Head/Sub-Head of Expenditure</th>
<th>2018-2019 Actual (Rs)</th>
<th>2019-2020 Estimates (Rs)</th>
<th>2019-2020 Actual (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Compensation of Employees</td>
<td>79,926,345</td>
<td>93,565,000</td>
<td>73,675,082</td>
</tr>
<tr>
<td>2 Goods and Services</td>
<td>59,966,791</td>
<td>121,910,000</td>
<td>54,165,360</td>
</tr>
<tr>
<td>3 Subsidies</td>
<td>442,800</td>
<td>500,000</td>
<td>332,100</td>
</tr>
<tr>
<td>4 Recurrent Grants</td>
<td>44,445,958</td>
<td>55,400,000</td>
<td>44,721,997</td>
</tr>
<tr>
<td>5 Capital Grants</td>
<td>10,662,113</td>
<td>8,000,000</td>
<td>4,376,864</td>
</tr>
<tr>
<td>6 Social Benefits</td>
<td>10,000</td>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>7 Other Expenses</td>
<td>75,265,019</td>
<td>75,315,000</td>
<td>75,290,356</td>
</tr>
<tr>
<td>8 Acquisition of Non-Financial Assets</td>
<td>162,403</td>
<td>5,300,000</td>
<td>4,550,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>270,881,429</strong></td>
<td><strong>360,000,000</strong></td>
<td><strong>257,111,759</strong></td>
</tr>
</tbody>
</table>

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![Bar chart showing expenditure by head/sub-head for Ocean Economy]

**Statement of Expenditure (Ocean Economy)**

### Statement of Expenditure for Vote 19-2 Fisheries

<table>
<thead>
<tr>
<th>Head/Sub-Head of Expenditure</th>
<th>2018-2019 Actual (Rs)</th>
<th>2019-2020 Estimates (Rs)</th>
<th>2019-2020 Actual (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Compensation of Employees</td>
<td>169,625,733</td>
<td>192,089,000</td>
<td>165,077,722</td>
</tr>
<tr>
<td>2 Goods and Services</td>
<td>48,487,620</td>
<td>58,811,000</td>
<td>33,854,570</td>
</tr>
<tr>
<td>3 Subsidies</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4 Recurrent Grants</td>
<td>11,331,288</td>
<td>11,650,000</td>
<td>11,281,736</td>
</tr>
<tr>
<td>5 Social Benefits</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6 Other Expenses</td>
<td>10,560,692</td>
<td>17,450,000</td>
<td>2,557,142</td>
</tr>
<tr>
<td>7 Acquisition of Non-Financial Assets</td>
<td>32,739,310</td>
<td>54,500,000</td>
<td>29,180,759</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>272,744,643</strong></td>
<td><strong>334,500,000</strong></td>
<td><strong>241,951,929</strong></td>
</tr>
</tbody>
</table>

---

![Bar chart showing expenditure by head/sub-head for Fisheries]

**Statement of Expenditure (Fisheries)**

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Analysis of Major Changes

- **Revenue**
  
The covid-19 pandemic has impacted negatively on the revenues of the Ministry. The contraction in economic activities has resulted in a fall in actual revenue of 5.08% in 2019/20 as compared to 2018/19. Nevertheless, an increase of 0.67% in revenue is to be noted in 2019/20 as compared to estimates of the year.

- **Expenditures**
  
The pandemic has caused disruption of unprecedented dimension in economic activities in the country and as such an overall decrease in the expenditures of various votes of the Ministry has been resulted in the financial year 2019/20. The actual expenditure has fallen by 28.14% of the estimates of Rs 694,500,000 for 2019/20.

**Procurement and Supply**

The following activities were carried out by the Procurement Section for the Financial Year 2019-2020:

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of formal tenders launched</td>
<td>57</td>
</tr>
<tr>
<td>Number of Informal Tenders launched</td>
<td>109</td>
</tr>
<tr>
<td>Total contract amount awarded above Rs 100,000</td>
<td>Rs 7,652,574.70</td>
</tr>
<tr>
<td>Total contract amount awarded below 100,000</td>
<td>Rs 7,258,930.14</td>
</tr>
<tr>
<td>Total number of contracts awarded to SME’s</td>
<td>217</td>
</tr>
<tr>
<td>Total contract amount awarded to SME’s</td>
<td>Rs 8,006,824.84</td>
</tr>
<tr>
<td>Donations received</td>
<td>Nil</td>
</tr>
<tr>
<td>Value of physical stock as 30 June 2020</td>
<td>Rs 1,926,813</td>
</tr>
<tr>
<td>Assets disposed as e-wastes and used tyres to recyclers</td>
<td>Rs 1,221,135</td>
</tr>
</tbody>
</table>

Statement of Expenditure (Fisheries)
Part IV – Way Forward and Strategic Direction

Fisheries Division

- Enforce the Extension Unit of the aquaculture for proper monitoring of projects
- To enhance the hatcheries for optimum production for marine ranching and for extension services
- Development of an Industrial Fleet in the banks and tuna fisheries
- Increase the semi-industrial fleet for increase in local fish production
- Development of a Management Plan for the Coastal Fishery
- Continue with the implementation of a closed season for net Fishery and Octopus Fishery
- Studies on untapped resources in the EEZ
- To be fully compliant with IOTC resolutions for the Tuna Fishery
- To participate fully in combating IUU fishing in our waters
- Continue to provide training to fishers to empower them with better livelihood and economic status
- Continue mapping and estimation of the distribution of mangroves along the coast of Mauritius and identification of prospective mangrove propagation sites.
- Long-term monitoring of the coral reef ecosystems and associated marine fauna will be continued at the selected sites and within the marine parks.
- The coral farming project will be continued at selected sites accompanied by the training of fishers
- To finalize the plans for the construction of Balaclava Marine Park Centre.
- To review the Management Plans for Blue Bay and Balaclava Marine Parks and proceed with the ecological inventories of both parks.

The Competent Authority Seafood

- The Competent Authority Seafood aims at becoming an effective and recognized unit at Regional and International level in order to increase investments in the fisheries and processing sector to sustain export of fish and fish products and to scope for new markets at international level.
Shipping Division

- Review the Merchant Shipping Act 2009 and entailing regulations
- Incorporate provisions of Maritime Conventions ratified by Mauritius in the National Law through regulations
- Enhance coordination and collaboration with other stakeholders on maritime safety and security
- Enforce existing laws and regulations in respect of maritime safety, security and protection of the marine environment
- Enhance the image of Mauritius as a reputable Ship Registry
- Serve as a marketable tool for an aggressive campaign to promote the Mauritius Ship Registry
- Development of a Yacht Code for Mauritius for registration of Luxury Yachts under the Mauritius flag
- Creation of an inventory of all services involved in the maritime transport/logistics supply chain to allow the exploitation of the full range and depth of maritime services available in Mauritius
- Enhance national and international maritime training and certification regulations
- Develop and enhance quality assurance systems in maritime training
- Introduce measures to attract youngsters to join the maritime industry
- Collaborate with training institutions for the provision of quality maritime education and training plan to degree levels
- Introduce new courses in the medium and long terms for Officers and Cadets

Strategic Directions and Enablers

1. Recruitment of Technical Staff to enhance the capabilities of the Shipping Division and to achieve excellence as a Maritime Safety Administration
2. Develop an appropriate legal and Regulatory Framework to implement maritime conventions in the national law
3. Address the acute shortage of seafarers through the formulation of appropriate maritime and education policy as well as enhancing the visibility of job and career opportunities in the Maritime Sector