



# STRATEGIC PLAN 2011-2015



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## Foreword by Chairman

I am pleased to be associated with the launching of the Strategic Plan of the Mauritius Oceanography Institute (MOI) for the period 2011 to 2015. With this five-year plan, the MOI will be better prepared to address the present and upcoming challenges and deliver on its mandate of advising Government on the formulation and implementation of policies and programmes in oceanography.

Although a relatively young organisation, the MOI has shown remarkable dynamism by initiating and contributing to a number of projects of national importance. One of the most significant contributions of the MOI has undoubtedly been the provision of technical expertise for the preparation, along with the Seychelles, of a joint submission to the United Nations Commission on the Limits of the Continental Shelf for an extension of our continental shelf. The joint submission has received unanimous approval of the UN Commission. Mauritius and the Seychelles can now have access to the seabed and subsoil resources in an additional maritime area of approximately 396,000 km<sup>2</sup>.

In the ten years of its existence, the MOI also embarked on numerous research activities that relate to the ocean and its constituents. With an Exclusive Economic Zone of about 1.9 Million Km<sup>2</sup> and the additional seabed territories recently acquired, the MOI will have a pivotal role in the economic development of the country.

Through this Strategic Plan, the MOI now seeks to consolidate its research and development activities in the region and initiate projects that aim at bringing direct or indirect benefits to Mauritius. Building on its strength, that is its young, dynamic, and motivated staff, the MOI will undertake projects to secure and explore the potential of our maritime zone.

The MOI will also develop and implement operational oceanographic services using satellite imageries. Aquaculture and potential exploitation of natural products from the sea will also form part of its research and development activities. Moreover, MOI will carry out studies on the impacts of Climate Change and propose mitigating measures like reef restoration and creation of reef sanctuary. It has also a vital role to play in disaster risk strategies, more importantly, in tsunami preparedness.

In order to fulfil its mission in an effective manner, the MOI needs to house itself properly and be equipped with appropriate tools and technologies. The construction of its new building at Albion has come at an opportune time and will be crucial for MOI in implementing its projects.

This strategic plan will chart the course of the MOI for the next five years and, at the end of the day, help it to make an assessment of its successes and review its strategies, where required. I am sure that, with the contribution of its dedicated staff, the MOI will continue to deliver on its mandate and reach higher grounds in the pursuit of its mission.

**Mr. S. C. Seeballuck, G.O.S.K**  
Chairman



# Introduction

This strategic plan is being submitted as a requirement of section 23 of the Mauritius Oceanography Institute Act 1999, which reads as follows:

## **Strategic and Operational Plans**

- (1) *The Board shall declare a period of a specific duration to be a planning period.*
- (2) *Before the commencement of each planning period referred to in subsection (1)*
- (3) *The strategic plan shall set out:-*
  - (a) *The broad objectives of the Institute in performing its functions under this Act; and*
  - (b) *a broad outline of the policies and strategies to be pursued by the Institute to achieve those objectives*
- (4) *The Board shall submit the strategic plan to the Minister as soon as practicable within a reasonable time before its coming into effect.*
- (5) *The Board shall, before the commencement of each financial year that is included in the planning period formulate an annual operational plan for the execution of the current strategic plan.*

# Vision

To become the centre of excellence in oceanography in the region

# Mission

To develop and strengthen oceanographic research in order to enhance understanding of ocean and coastal processes for the sustainable management and use of its resources

# Values

- Professionalism
- Integrity
- Team spirit
- Dedication
- Commitment
- Loyalty
- Mutual respect
- Maintaining the highest possible standard
- Ethical
- Use of best practices
- Transparent
- Good governance
- Accountability



# Objects of the Institute

The Mauritius Oceanography Institute Act (1999) defines the objects and functions of the Institute as follows:

- To foster interest in research and development in relation to oceanography;
- To advise Government on the formulation and implementation of policies and programmes in respect of oceanography and related subjects;
- To coordinate, collaborate and cooperate with other institutions, agencies and persons on national, regional and global issues within its fields of interest, and to assist any organisation, body or person in creating sustainable research and development programmes in those areas of interest and activity related to oceanography;
- To demonstrate and communicate to the scientific community and the public at large the results of research and the importance of oceanography in the conservation, maintenance, management, utilisation and development of resources based on marine and coastal ecosystems;
- To manage and optimise the use of funds and other resources for the purposes of this Act.





# Functions of the Institute

The Institute shall have such functions as, in its opinion, are necessary to further most effectively the objectives of the Institute, and in particular:

- 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;
- To arrange for carrying out such research and development;
- To provide any other institution, body or person with facilities for carrying out such research and development;
- To maximise opportunities and arrangements for such research and development on a collaborative basis;
- To encourage and facilitate the application and use of the results of such research and development;
- To prepare, fund, implement and periodically update and monitor programmes relating to the sustainable development of marine resources;
- To collect, coordinate, store and disseminate information relating to oceanography and to publish reports and other material relating to oceanography;
- To identify training needs in the field of oceanography;
- To make available to other institutions, bodies or persons, on such terms and conditions as it thinks fit such as knowledge, expertise, equipment or facilities of the Institute;
- To do anything incidental or conducive to the performance of any of its functions under this section.





# SWOT Analysis for MOI

## STRENGTHS

- Strong, young, dynamic, highly skilled and motivated staff
- Good working environment
- Simplified management procedures, good management style
- Good regional visibility
- Good team spirit within departments and specific working groups

## WEAKNESSES

- Lack of specific training for specific projects
- Need for additional staff at support level
- Lack space and equipment for laboratory and a dedicated boat for fieldwork
- Conflict of interest within Board
- Poor visibility of products and services among general public and students

## OPPORTUNITIES

- Vast EEZ and Extended Continental Shelf
- Potential for providing consultancy services
- Climate change research
- Assist in developing Government policies
- Increased interest of private sector, external donors and research institutions in MOI work

## THREATS

- Increasing brain drain
- Lack of funding
- Inability to keep up with technological development
- Lack of IPR framework to protect research
- Lack of legislative framework to protect local research
- Overlapping mandates

# Strategic Objectives

During the four-year span of the present Strategic plan, the MOI will focus on five main strategic objectives. Most of the projects proposed in order to meet these objectives will bring direct or indirect economic benefits to the country.

## Strategic Objective 1:

Initiation, launching and undertaking research and development in relation to oceanography having regard to the national, regional and international interests of Mauritius, its needs and priorities.

## Strategic Objective 2:

Fostering of interest in research and development in relation to oceanography.

## Strategic Objective 3:

Advising Government on the formulation and implementation of policies and programs in respect of oceanography and related aspects.

## Strategic Objective 4:

Co-ordination, collaboration and co-operation with other institutions, agencies and persons on national, regional and global issues within its fields of interest, and assistance to any organisation, body or person in creating sustainable research and development programmes in those areas of interest and activity related to oceanography.

## Strategic Objective 5:

Demonstration and communication to the scientific community and the public at large of the results of research and the importance of oceanography in the conservation, maintenance, management, utilisation and development of resources based on marine and coastal ecosystems.





## ● Strategic objective 1:

- **Initiation, launching and undertaking research and development in relation to oceanography having regard to the national, regional and international interests of Mauritius, its needs and priorities.**

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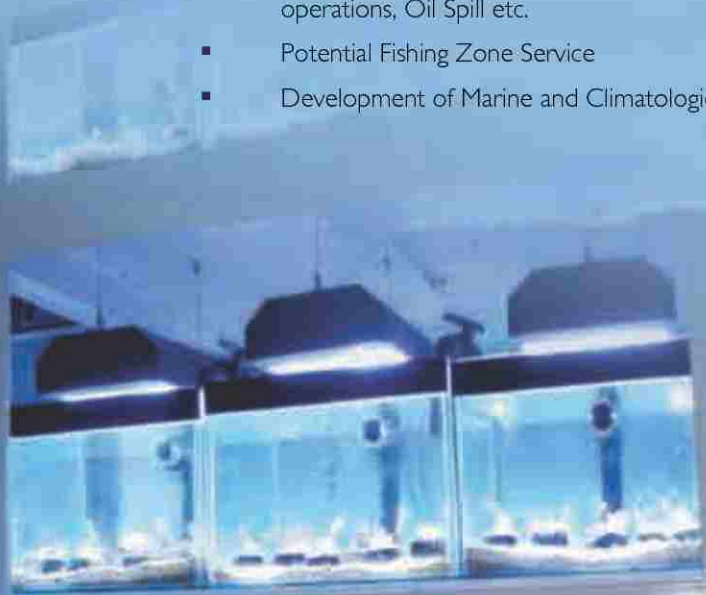
### Secure and explore the potential maritime and EC zone of Mauritius under UNCLOS

- Provide technical and scientific support to CLCS Team. Arrange for collection of additional data for Rodrigues and Mascarene Plateau to support submission for ECS. Preparation of ECS submission for the Chagos region.
- Support JMC in respect of Geology and Petrology of joint ECS zone of Mauritius and Seychelles.
- Carry out surveys for collection of data in our EEZ and ECS
- Bathymetry studies
- Resource Stock Assessment (Population identification using genetics followed by surveys)
- Biodiversity Assessment, Identification and Bar Coding
- Marine Bioinformatics
- Marine Archaeology
- Deep sea, Hydrocarbon and Mineral Exploration

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### Development and implementation of operational oceanographic services using earth observation systems (initially through AMESD)

- Hazards Management – Current and Wave Information Service for Search and Rescue operations, Oil Spill etc.
- Potential Fishing Zone Service
- Development of Marine and Climatological Indicators (Biomass, Primary Production...)



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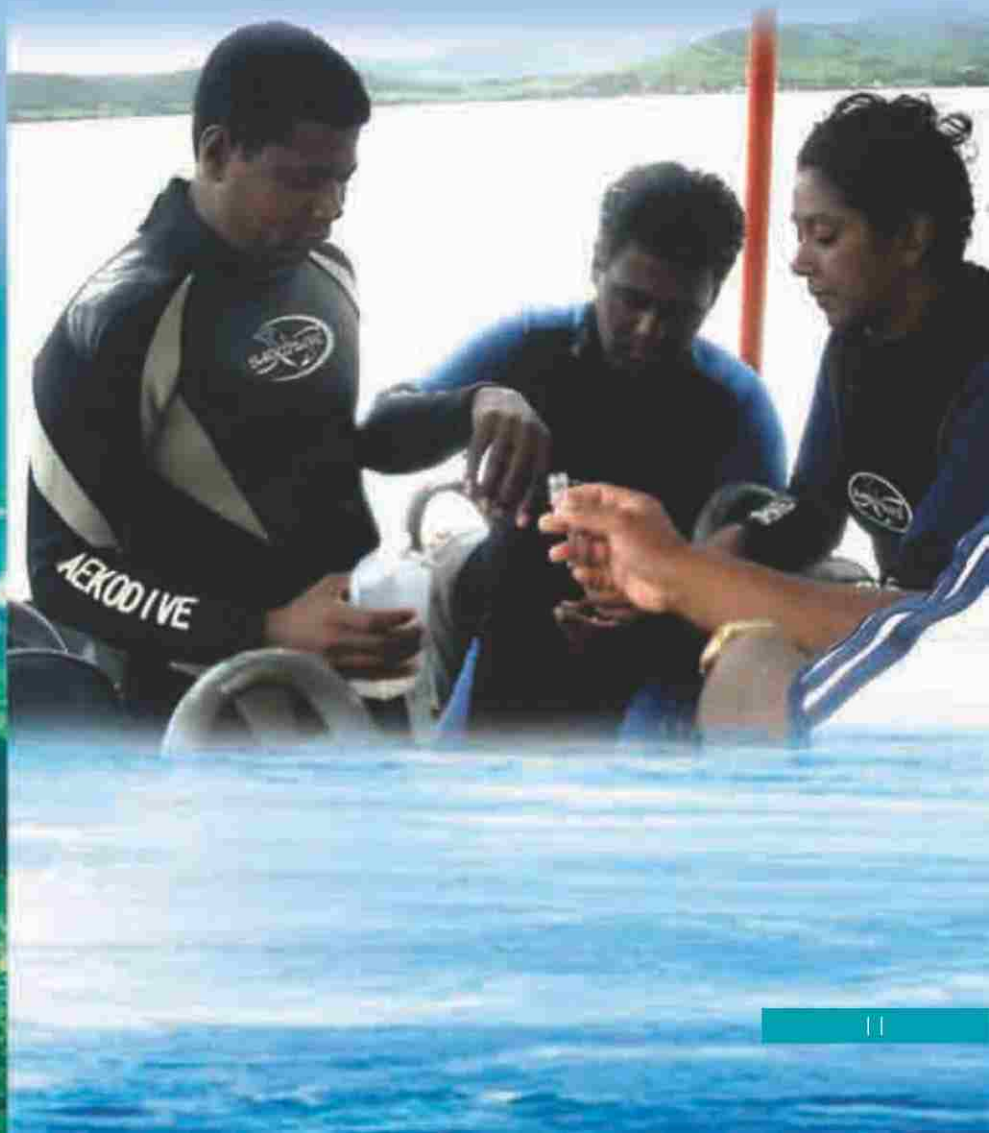
## Aquaculture

Coordinate and contribute to economic feasibility and technical trials for the production of:

- Oysters
  - Pearl Oysters
  - Mussels
  - Sea Urchins
  - Sea Cucumbers
  - Ornamental fishes
- 

## Potential exploitation of natural products from the sea

- Pharmaceuticals (ongoing)
- Cosmetics and Food Supplements





## ● Strategic objective 2:

### ● **Fostering of interest in research and development in relation to oceanography.**

- To work with Mauritius Museums Council, Public Aquaria, University of Mauritius ...

## ● Strategic objective 3:

### ● **Advising Government on the formulation and implementation of policies and programs in respect of oceanography and related aspects**

- Initiate and coordinate consultations with stakeholders on the development of an integrated marine policy for submission to government of Mauritius.
- Assist the Prime Minister's Office in the formulation of regulations for the Maritime Zones Act.



## ● Strategic objective 4:

**Co-ordination, collaboration and co-operation with other institutions, agencies and persons on national, regional and global issues within its fields of interest, and assistance to any organisation, body or person in creating sustainable research and development programmes in those areas of interest and activity related to oceanography.**

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### **(i) Climate change impacts and adaptation strategies**

- Impacts of sea level rise using past data and predictive models
  - Impacts on marine resources
  - Mitigating measures
  - Propagation of bleaching-resistant and threatened coral species
  - Reef restoration
  - Coral sanctuary creation
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### **(ii) Disaster reduction strategies: tsunami studies**

- Hazard and Risk Mapping to contribute to evacuation strategy
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### **(iii) Seismic activities**

- Database of seismic activities in the region
  - Contribution to [Maurice Ile durable]
  - Waves and Tides
  - Bio-fuels
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### **(iv) Threats to the environment**

- Studies on Invasive Species in collaboration with the Ministry of Infrastructure, Land Transport and Shipping
  - Pollution studies-modelling, integrating regional projects (ASCLME WIOLab)
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### **(v) Networking and collaboration with regional and international oceanographic institutions.**



## • Strategic objective 5:

**Demonstration and communication to the scientific community and the public at large of the results of research and the importance of oceanography in the conservation, maintenance, management, utilisation and development of resources based on marine and coastal ecosystems.**

### **Consultancy Services**

- Bathymetry
- Genetic studies
- CLCS

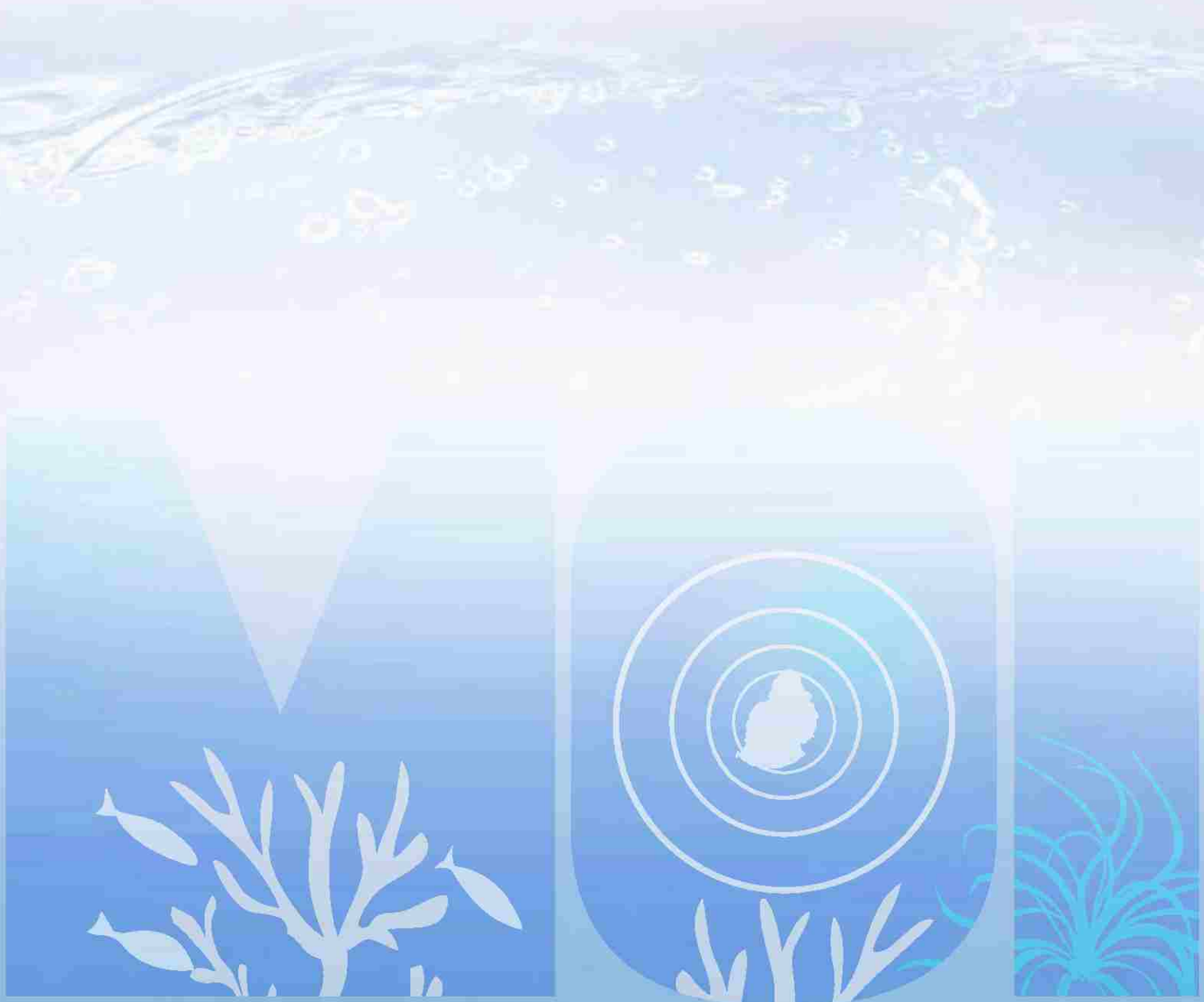
### **Awareness and Communication**

- National Ocean Science Forum (Held every two years)
- Workshops, seminars and training courses in connection with Oceanography

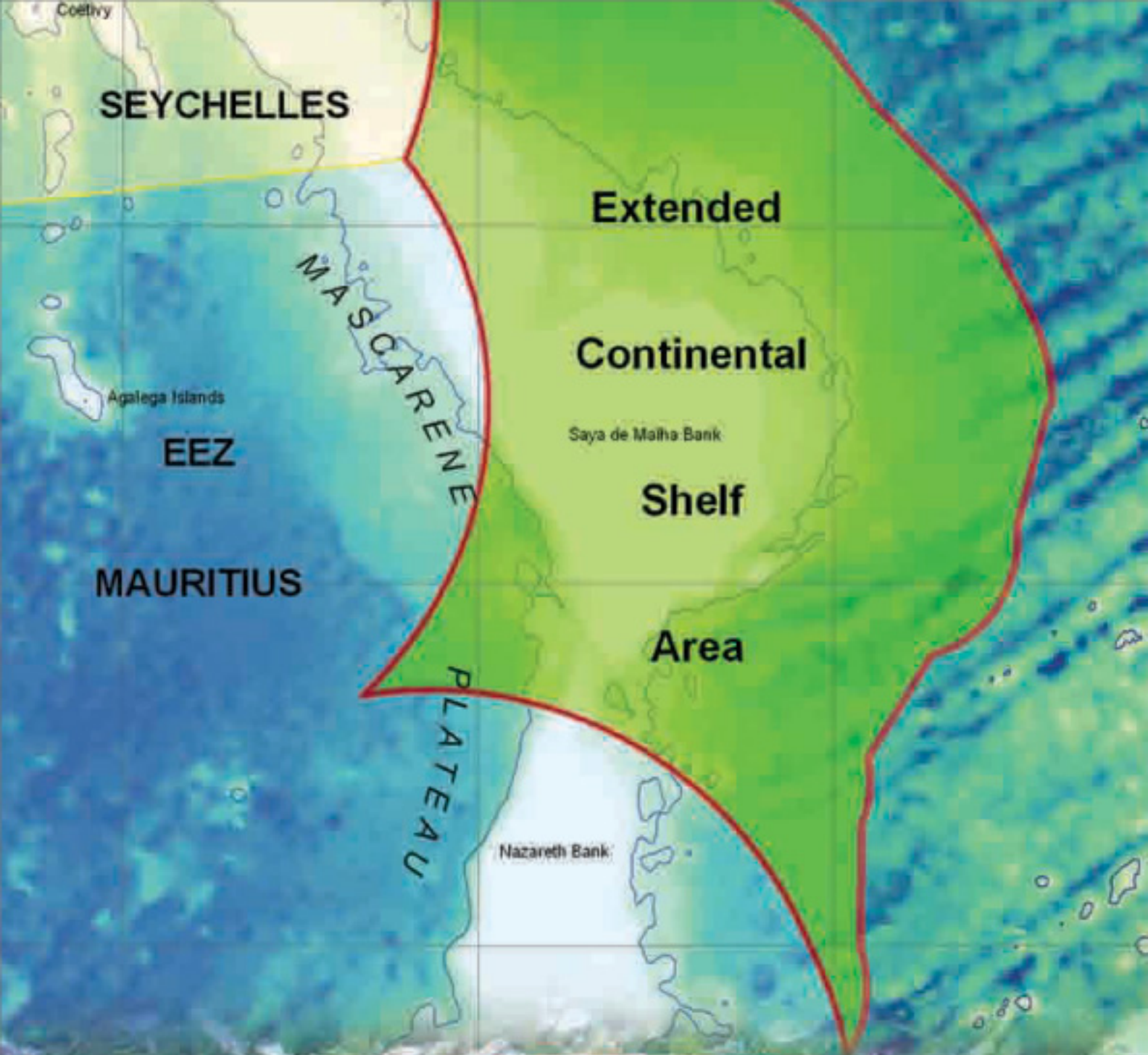








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