



IUCN Seamounts project

Conservation and sustainable exploitation of seamount and hydrothermal vent ecosystems of the South West Indian Ocean in areas beyond national jurisdiction

SEAMOUNTS

Mountains of Life

PLANKTON
produces more than
50% of the
O₂ we breathe and is the
primary producer for
all life in the ocean

High
concentrations of
plankton above
and downstream
of the mount

**FISH, APEX
PREDATORS,
MARINE
MAMMALS**

gather around them; some even
using the magnetic signature of
the seamounts

**TO MIGRATE
AND NAVIGATE**
through the vast ocean

**A LOT REMAINS
TO BE
DISCOVERED**

about seamount ecology,
species and dynamics

**UNIQUE
SPECIES**

high endemism
and potential
genetic resources

**HYDROTHERMAL
VENTS**

support chemosynthetic
ecosystems which don't need
light to live, and use the heat of
the Earth as primary energy

**THEY ARE CONSIDERED
ONE OF THE POSSIBLE
ORIGINS OF LIFE ON
EARTH**

**UNDER
POTENTIAL
THREATS**

Intensive fishing
and trawling

Future mining
activities

NEEDS

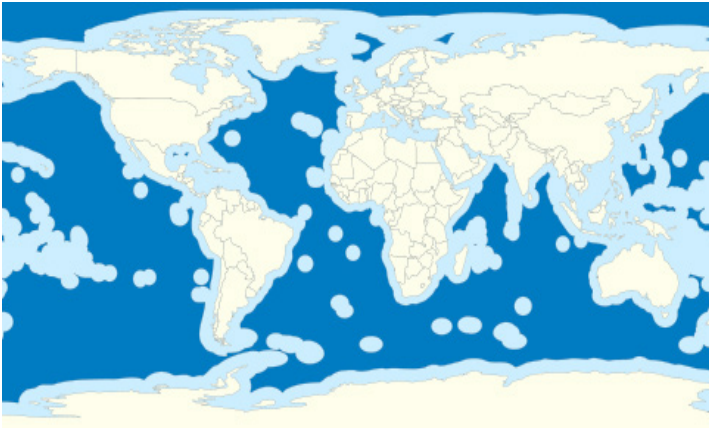
Research, management and protection of these structures
A high seas governance framework



South African
Environmental
Management
Act

Context and Challenges

Areas beyond national jurisdiction (ABNJ) are unique from both a geographic (remoteness, surface area, depth) and legal (international status, different regimes applying to the high seas and the Area, regime relying on the freedom principle) perspectives. They include unique and rich ecosystems such as seamounts and hydrothermal vents. These ecosystems are particularly vulnerable. Fishing and deep-sea mining represent the two major potential threats to these ecosystems.



ABNJs represent 50% of the planet's surface (dark blue)

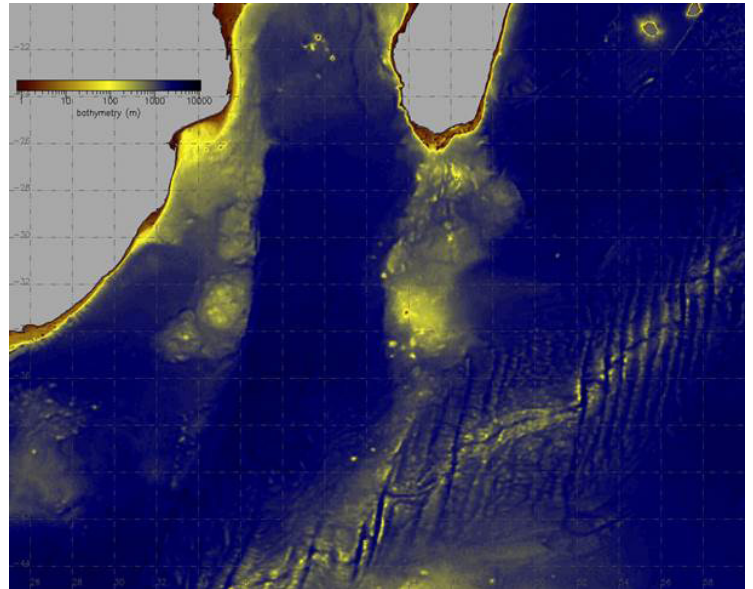
Objectives

1. Advance the state of knowledge of deep sea marine ecosystems including hydrothermal vents and seamounts and their relationship with fish populations. Document the link between coastal and oceanic ecosystems of ABNJ towards increasing the involvement of coastal states in high seas governance.
2. Improve and strengthen the governance framework:
 - a) For the management of fish stocks associated with deep sea ecosystems, including monitoring and control of fishing activities.
 - b) For the conservation of biodiversity and different types of habitats in this region, especially with regards to the possibility of offshore mineral exploration and exploitation activities.

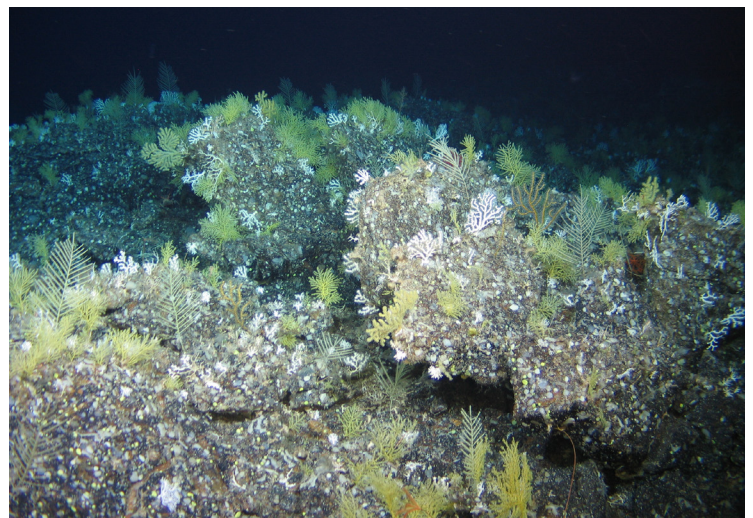
3. Suggest sound conservation and management measures for deep sea ecosystems in ABNJ, especially with regards to the creation of networks of marine protected areas (MPAs)) and Other Effective Conservation Measures (OECMs).

4. Raise awareness of policy makers, the fishing and mining industries and the general public to the importance of preserving deep sea life.

Project location South West Indian Ocean SWIO



Map of study area with bathymetry readings. © IRD.



ROV images from the RSS James Cook Expedition in 2011

Planned Actions

Scientific

- Analysis of knowledge/data collected so far. Hydrology, biogeochemistry and environmental dynamics surveys.
- Biological sampling on the Walter's Shoal- zoo-plankton, seabirds and marine mammals surveys including acoustic survey and video camera use.
- Bathymetric survey of a seamount south of Madagascar and deployment of ADCP moorings.
- Identify sites of conservation interest aimed at their protection.
- Evaluate the impact of threats linked to activities from fishing and mineral exploration/exploitation on biodiversity.

Upcoming meetings

- 2016** • Nairobi Convention Focal Points meeting: presentation on the importance of seamounts and ABNJ with emphasis on connectivity and discussion on governance scenarios.
- Meetings at SIOFA-1st plenary session: discussion on management strategies of existing resources (BPAs, EBSAs, etc...).
- Meetings to initiate discussions between NGO bodies and propose collaborations towards the management of biodiversity and resources.
- 2017** • Nairobi COP: present the expedition results highlighting connectivity.
- A general workshop on the connectivity of ABNJ involving regional actors.



Governance

- Reinforce existing ABNJ frameworks, develop regional capacities and partnerships.
- Assess the feasibility of an extension to the Nairobi convention in ABNJ.
- Support the first developments of SIOFA.
- Propose a management plan for Walters Shoal using marine spatial planning.
- Propose MPA networks in the regional ABNJ with enforcement strategy.
- Share experiences among regional and international scientific and international institutions. Some of this will include the publication of a roadmap directing future efforts.
- Evaluate possible financial tools to benefit conservation and management.

Partners and Funding

Funding: French Global Environment Facility (FFEM)

Co-funding: FAO

Executing partners: IUCN, MNHN, IRD, IDDRI, Oxford University

Other partners: FAO, Nairobi Convention, Ministry of Environment, Energy and the Sea of France, Ministry of Foreign Affairs and International Development of France, IFREMER, ISA, SIODFA, SAPPHERE, AfriCOG, Department of Environmental Affairs of the Republic of South Africa

Project duration: 4 years (2014-2017).

Total project financing: 9M euros.

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