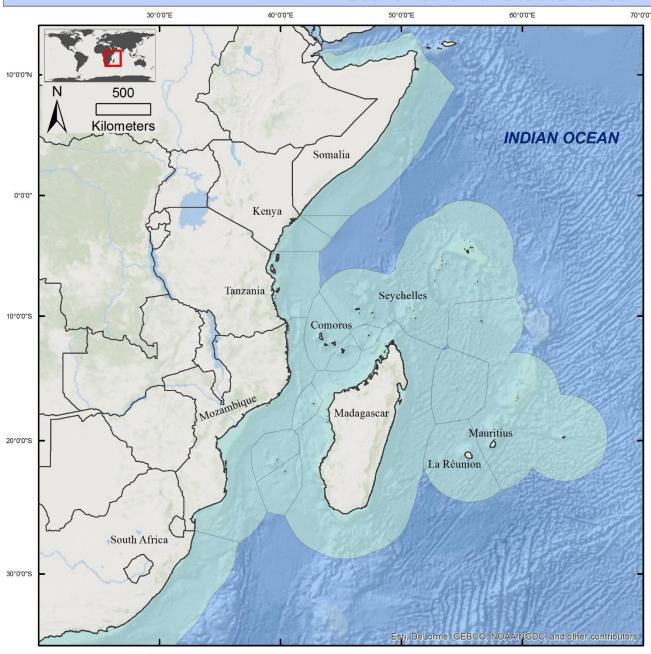
# Orientations for Regional Cooperation for MSP - West Indian Ocean





#### Exclusive Economic Zone boundaries



#### LEGEND:

EEZ

# STRUCTURING MARITIME SPACE ... AN OLD QUESTION ...

#### DATA SOURCES:

VLIZ (2014). Maritime Boundaries Geodatabase, version 8. Available online at http://www.marineregions.org/. Consulted on 2015-05-11.

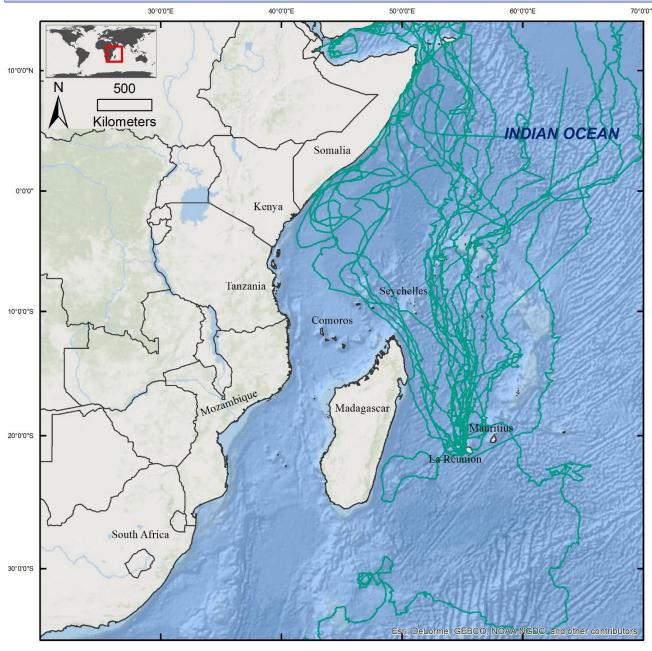
Author: E. Crochelet - Date: 12/2015 - Map nº PIP-3-1







#### Movement of juvenile loggerhead sea turtles from Reunion Island (2014-2015)



#### LEGEND:

Trajectories

# BEYOND NATIONAL BOUNDARIES

#### DATA SOURCES:

Ifremer/Kélonia/CLS. COCA LOCA project. Suivis de Tortues Caouannes par balises Argos. Funding: AFD, BEST, Union Européenne. Management: IUCN. From Dalleau et al. 2014.

Author: E. Crochelet - Date: 12/2015 - Map n° SPEC-5-7



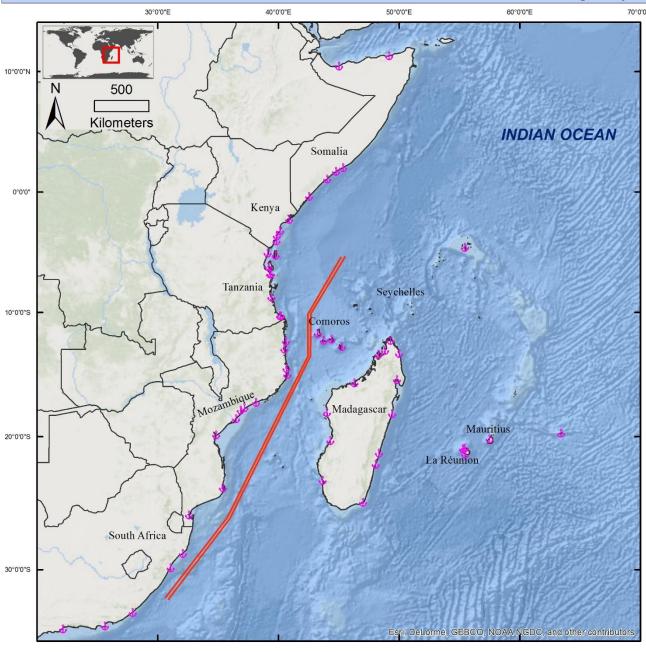






# BEYOND NATIONAL BOUNDARIES

#### Western Indian Ocean Marine Highway



#### LEGEND:



Ports

Marine Highway

# BEYOND NATIONAL BOUNDARIES

#### **DATA SOURCES:**

Ports: World Port Index (Pub 150)

Marine Highway: Western Indian Ocean Marine Highway development and coastal and marine contamination prevention project - reproduced from "Marine Highway Indian Ocean-Project document".

Author: E. Crochelet - Date: 12/2015 - Map nº PIP-5-1







### **Ports** 60°0'0"E 50°0'0"E Kilometers INDIAN OCEAN Somalia 0°0'0" Kenya Tanzania Seychelles 10°0'0"S Comoros Madagascar Mauritius La Réunion South Africa

#### LEGEND:



# **COMMON COASTAL** URBANIZATION **AND INDUSTRIAL ISSUES**

#### **DATA SOURCES:**

Ports: World Port Index (Pub 150).

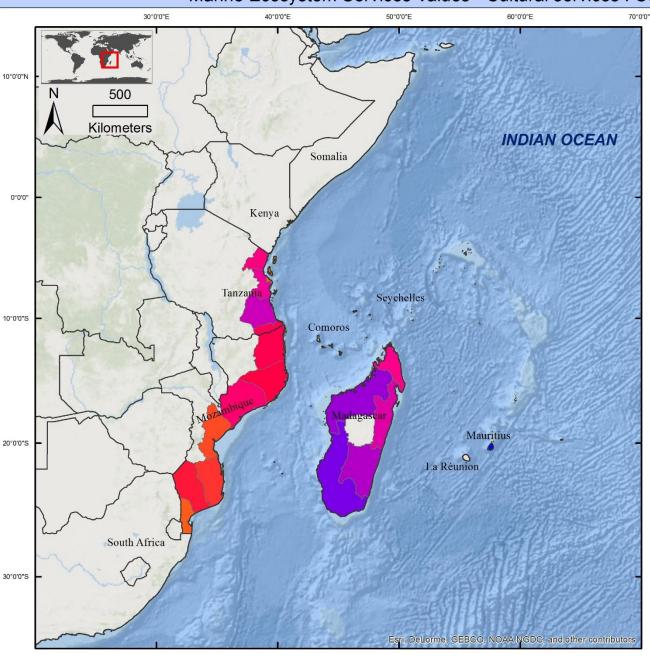
Author: E. Crochelet - Date: 12/2015 - Map n° PIP-8-1







#### Marine Ecosystem Services Values - Cultural services : Coastal tourism



#### LEGEND:

Distribution of coastal tourism values in the NMC region

Values are in million US \$ / year



# COMMON ECONOMIC SECTORS

#### DATA SOURCES:

Understanding And Valuing Marine Ecosystem Services In The Northern Moambiqu channel. Nunes P and Ghermandi A (2015). Consultancy report commissioned for the Northern Mozambique Channel initiative. VWF International.

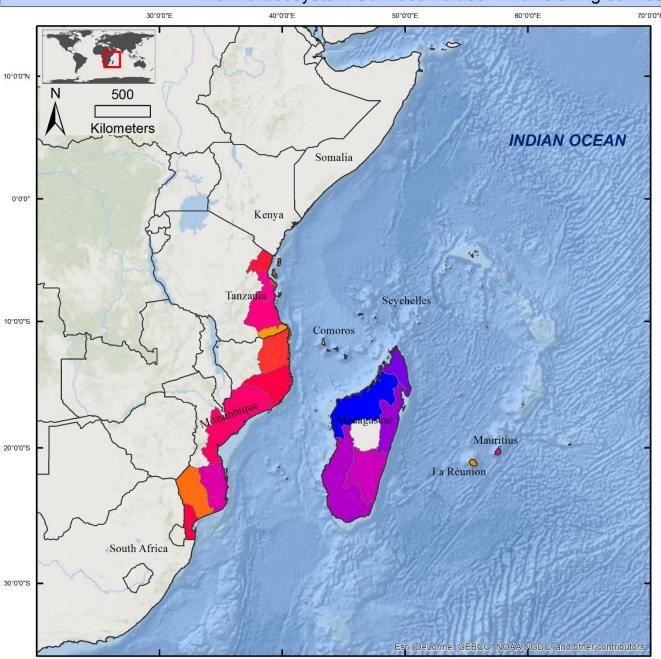
Author: E. Crochelet - Date: 12/2015 - Map nº PIP-2-3







#### Marine Ecosystem Services Values - Provisioning services : Fisheries



#### LEGEND:

#### Distribution of fisheries landed values in the NMC region

Values are in million US \$ / year



# COMMON ECONOMIC SECTORS

#### DATA SOURCES:

Understanding And Valuing Marine Ecosystem Services In The Northern Moambiqu channel. Nunes P and Ghermandi A (2015). Consultancy report commissioned for the Northern Mozambique Channel initiative. WWF International.

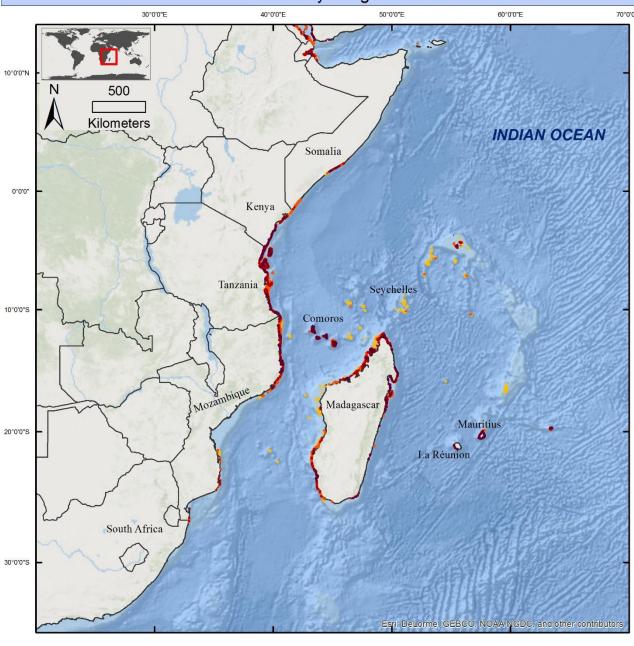
Author: E. Crochelet - Date: 12/2015 - Map n° PIP-2-1







#### Reefs by Integrated Local and Global Threats in 2050



#### LEGEND:

Coral reefs classified by integrated local and global (climate-related) threats in 2050\*

Low

Medium

High

Very high

Critical

\* Local threats include: coastal development, overfishing and destructive fishing, marine-based pollution and damage, and watershed-based pollution. Global threats include: thermal stress (ocean warming) and ocean acidification.

#### DATA SOURCES:

World Resources Institute, Reefs at Risk Revisited, 2011.

Author: E. Crochelet - Date: 12/2015 - Map n° PIP-9-3

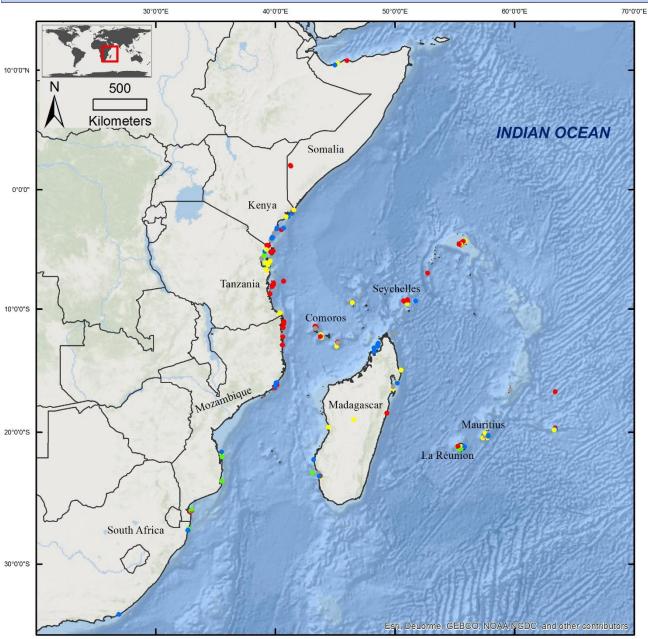






# COMMON CHALLENGES

#### Coral bleaching



#### LEGEND:

#### Bleaching severity

- Severity unknown (bleaching observed, but no indication of severity)
- No bleaching (confirmed no bleaching observed at location)
- Low (1-10% of corals bleached)
- Medium (~10-30% of corals bleached)
- High (>30% of corals bleached)

# COMMON CHALLENGES

#### **DATA SOURCES:**

ReefBase: A Global Information System for Coral Reefs. December, 2015. http://www.reefbase.org

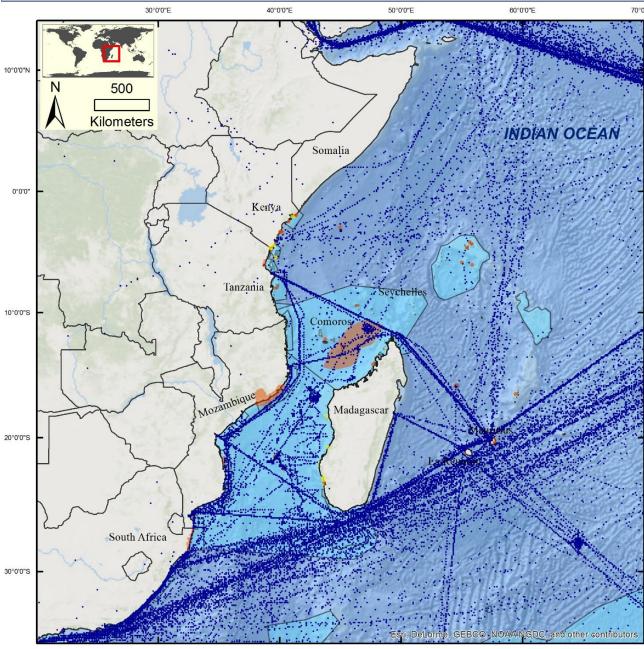
Author: E. Crochelet - Date: 12/2015 - Map n° PIP-1-1







#### Protected Areas - EBSA - Commercial shipping



#### LEGEND:

#### Protected areas

#### **Point locations**

- Marine Protected Area
- Locally Managed Marine Area

#### **Polygon locations**

Marine P

Marine Protected Area



Locally Managed Marine Area

#### **Ecologically or Biologically Significant Marine Areas**



EBSA

#### Commercial shipping

Commercial shipping

#### **DATA SOURCES:**

MPAs - LMMAs: Compiled from various sources including the World Database of Protected Areas (WDPA)\*, local agencies and personnal knowledge.

\*IUCN and UNEP-WCMC (2015), The World Database on Protected Areas (WDPA) [On-line], Cambridge, UK: UNEP-WCMC. Available at: www.protectedplanet.net.

Convention on Biological Diversity URL: https://www.cbd.int/ebsa/

Commercial shipping: JCOMMOPS (2014) - Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) in-situ Observing Platform Support centre (JCOMMOPS)

Author: E. Crochelet - Date: 12/2015 - Map n° MSP-4

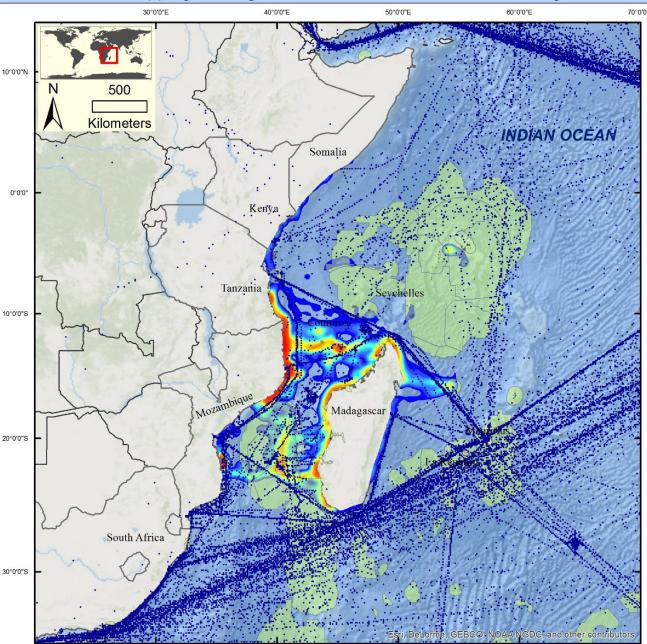






# MANAGING THE COMPLEXITY

#### Commercial shipping & Regional utilization distribution of female green turtles in post-nesting migration & IBAs



#### LEGEND:

#### Commercial shipping

Commercial shipping

Regional utilization distribution of female green turtles in post-nesting migration

#### Value



Low: 5

**Important Bird and Biodiversity Areas** 



IBAs

#### DATA SOURCES:

Commercial shipping: JCOMMOPS (2014) - Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) in-situ Observing Platform Support centre (JCOMMOPS)

Ifremer/Kélonia. DYMITILE project. Suivis des migrations des tortues vertes par balises Argos. Funded by Ifremer, Kélonia, DEAL Réunion et Mayotte, Région Réunion, FFEM, Fondation total, CA, ARGOS/CLS, ANR, Collectivité Départementale de Mayotte, ADSEI. From Dalleau 2013, Bourjea et al in prep.

BirdLife International (2015): Important Bird and Biodiversity Area factsheet: Indian Ocean.

Author: E. Crochelet - Date: 12/2015 - Map nº MSP-3

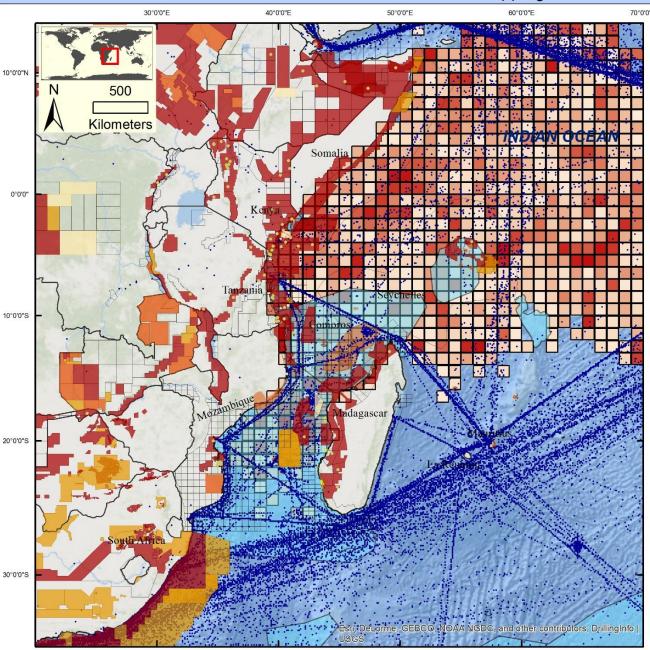






# MANAGING THE COMPLEXITY

#### Protected Areas - EBSA - Commercial shipping - Oil & Gas activities - Fisheries



#### LEGEND:

#### **Protected areas**

#### Point locations

Marine Protected Area

#### Locally Managed Marine Area

#### **Polygon locations**

Marine Protected Area

#### Locally Managed Marine Are

#### **Ecologically or Biologically Significant Marine Areas**

EBSA

#### Commercial shipping

Commercial shipping

#### Monthly catches of tropical tunas:

Thunnus albacares, Thunnus obesus Katsuwnous pelamis

metric tons

Statistical unit 1° square Purse seiner - All fishing mode

#### Oil and Gas activities

Planned Wells

#### **Contracts status**

Open Under negotiation Application

Pre-award

Force Majeure

Contract

#### DATA SOURCES:

MPAs - LMMAs: Compiled from various sources including the World Database of Protected Areas (WDPA)\*, local agencies and

\*IUCN and UNEP-WCMC (2015), The World Database on Protected Areas (WDPA) [On-line], Cambridge, UK: UNEP-WCMC. Available at: www.protectedplanet.net.

Convention on Biological Diversity. URL: https://www.cbd.int/ebsa/

Commercial shipping: JCOMMOPS (2014) - Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) in-situ Observing Platform Support centre (JCOMMOPS)

ALES (2015). Global Drilling Info. USGS. Restricted for WWF use only. Data were downlaoded on May 26, 2015.

IOTC Secretariat database (2014).

Author: E. Crochelet - Date: 12/2015 - Map n° MSP-2







# **MANAGING** THE COMPLEXITY

# ICZM/MSP

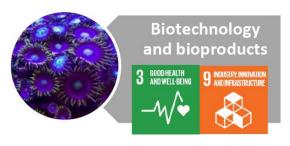
## **AGENDA 2030**















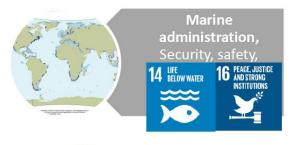












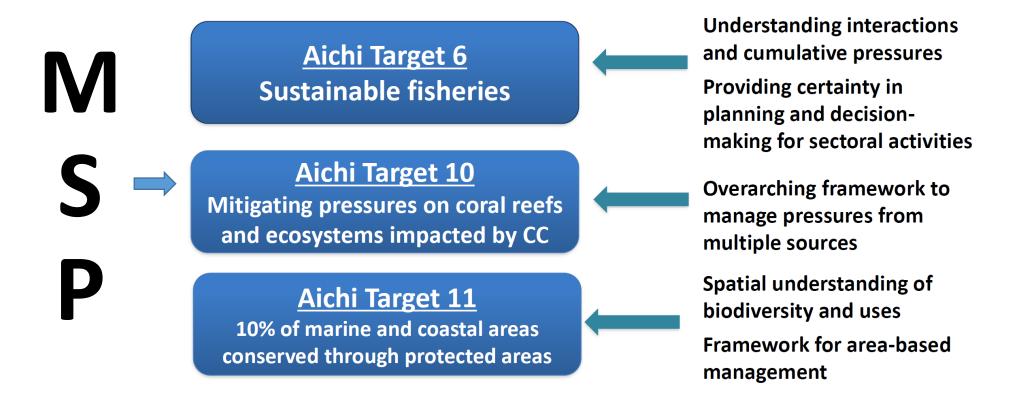




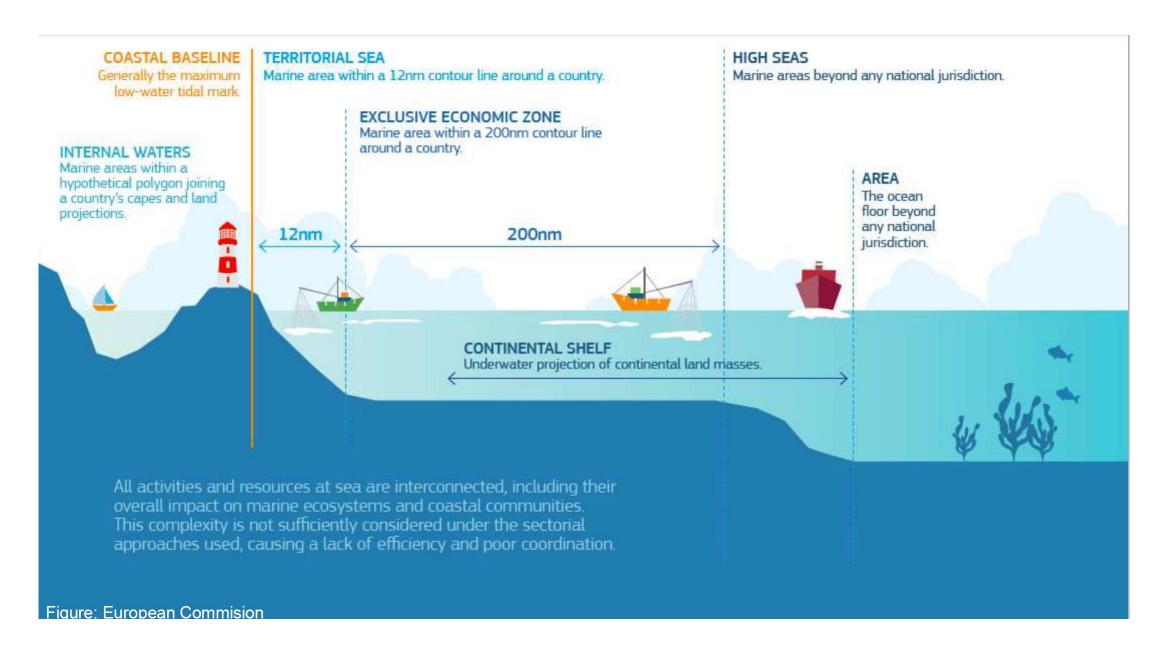




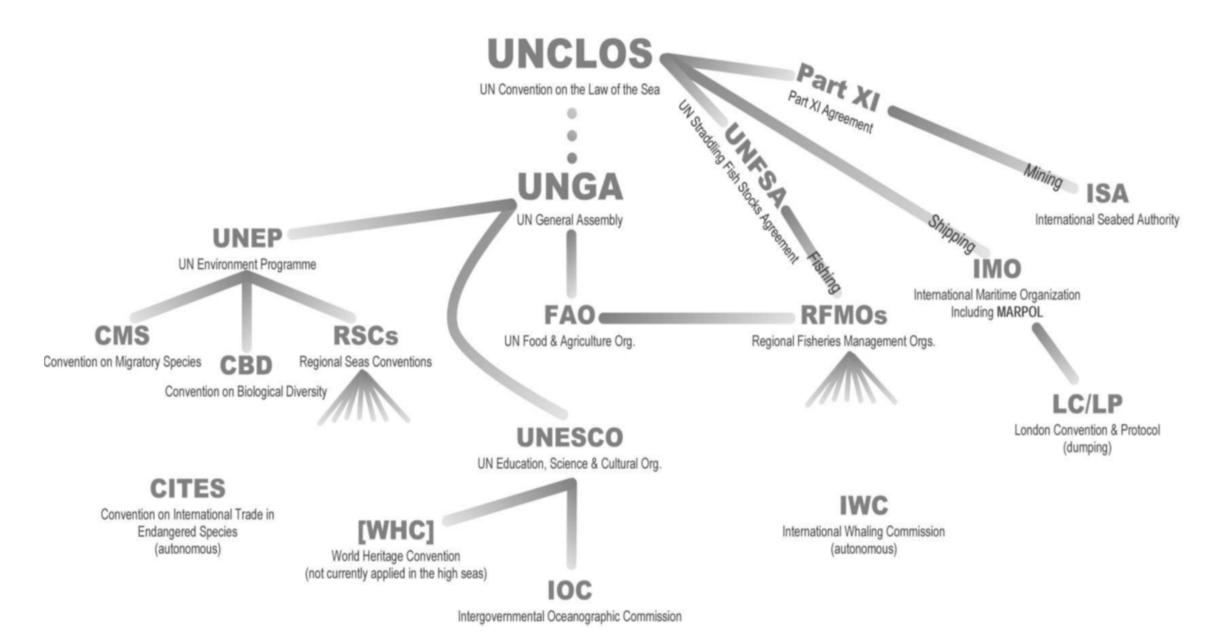
CDB COP 13 encouraged Parties in the implementation of MSP: to link closely to existing efforts to implement integrated marine and coastal area management, marine protected areas and other effective area-based conservation measures, as well as strategic environmental assessments, environmental impact assessments, pollution management, fisheries management and management of other economic activities, including tourism (decision XIII/9)



#### DIFFERING RESPONSIBILITIES LOCAL - PROVINCIAL - NATIONAL - REGIONAL - GLOBAL ...



#### BUT ALSO AT THE LEVEL OF GLOBAL OCEAN GOVERNANCE



### MSP IN THE WESTERN INDIAN OCEAN

A long maturation process (more than 10 years ...)

Started with Conservation (MPAs) and Fisheries issues ...

Some countries already engaged national MSP Processes, that are at different stages, other are in the inception phase.

A cross border initiative envisaged (North Mozambique Channel)



# STRENGTHENING THE REGIONAL DYNAMIC FOR MSP





### FORMAL ENGAGEMENT



Global and multilateral level Nairobi Convention

SWIOFC, IOC, etc...

National legal frameworks

and Policies

**Resolutions, Decisions** 

# ON THE GROUND ACTIVITIES

Networking
Workshops – meetings
Interpersonal contacts
Relations and exchange
Between stakeholders



# REGIONAL/CROSS BORDER COOPERATION NETWORKS and INITIATIVES

WIOMSA
Joint initiatives
Soft regulations
Cross border MSP
Regional projects and programs

# WIO REGIONAL APPROACH FOR MSP SOME GUIDING PRINCIPLES ...

Land – Sea Integration (ridge to reef and beyond...)

Linking EEZ and ABNJ ... Ocean continuum

A <u>step by step</u>, <u>structured</u> (validation steps) and iterative process ...

- Respecting subsidiarity and countries sovereignty ...
- Based on prospective and future-oriented approach ...
- ☐ Considering the response to capacity needs as a priority and a crucial outcome of the process

An M&E framework based on regional PEER review

## NEEDS ...

processes awareness organ organisation pilot champion national dedicated protocol trainers Erasmus collaboration building case projects learnt team communication tools interests baseline studies between databases Capacity lessons tracking progresses



# WIO REGIONAL APPROACH FOR MSP SOME ISSUES TO ADDRESS ...

Need for a consensual ENTRY POINT to avoid issues and more delays due to the complexity of MSP (let's move forward!)

Facing issues related to accessibility (or quality) of some sectoral data ...

Data heterogeneity and data sharing protocols/agreements

Regional support to MSP should have to contribute to the progresses of national MSP initiatives.

No one model fits all the situations taking into account the diversity of governance dispositions in the region

### TOWARD AN EFFECTIVE REGIONAL SUPPORT TO MSP

Marine and coastal biodiversity, habitats and cultural heritage may be a convenient entry point, taking advantage of:

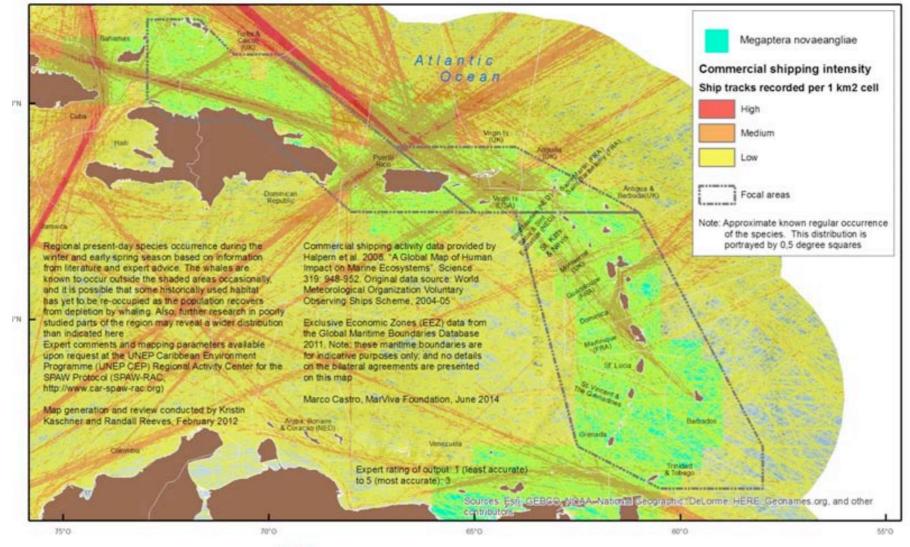
Relative availability of data, studies and models, Historical regional Cooperation – WIOMSA Importance of common heritage and shared natural resources

Building a shared and dynamic vision of regional biodiversity at different scales ... hospots ...

# TOWARD AN EFFECTIVE REGIONAL SUPPORT TO MSP

### Humpback Whale vs. Commercial Shipping Routes

(Megaptera novaeangliae)







# BLUE ECONOMY AND RAPID DEVELOPMENT CONTEXT

All the countries of the region are facing rapid development ...

MSP should be based on shared development scenarios 2030 – 2050 built on major demo-economic trends and climate change prospective.

This future-oriented approach should Involve REC... Toward the identification of next relevant and consensual « sectors » to integrate in MSP development.



## **NAIROBI** CONVENTION **Ocean and Blue Economy**

# **DECISION CP8/10**

### **NAIROBI** CONVENTION **DECISION CP8/13**

**Decision** To urge Parties to apply blue or ocean economy approaches as pathways for sustained economic growth, food security, poverty eradication, job creation

To *urge* Contracting Parties to cooperate in improving the governance of areas beyond national jurisdiction, building on existing regional institutions including the Nairobi Convention and developing area based management tools such as marine spatial planning to promote the blue economy pathways in the Western Indian Ocean Region.

#### Decision CP8/13: Enhancing Cooperation, Collaboration and Support with **Partners**

To agree to establish additional partnerships, including with regional economic communities, such as the East Africa Community, -----and ecologically or biologically significant marine areas as well as sustainable ocean initiative on capacity building of the Convention on Biological Diversity (CBD);

AND To *invite* all Contracting Parties and request the Secretariat to collaborate with the Secretariat of the Convention on Biological Diversity, Western Indian Ocean Marine Science Association and other partners on capacity building, implementation and sharing of experiences on integrated marine spatial planning in support of blue economy;

### PATHWAYS FOR A REGIONAL SUPPORT TO MSP

Data collection at national and regional scales (harmonization)?

Data analysis and regional integration technical workshops? Task forces?

Debriefing/feedback/validation public sessions at each step to national and regional actors, decision makers and stakeholders?

Regional support for aligned communication?
Regional support for capacity building on key technical issues, especially to fast track national MSP processes?
Implementation of common M&E framework based on regional peer review?
Promote twinning between national MSP processes (mentoring with actors

**Exchanges with other RSC (Abidjan especially)** 

out of the region)?

### **WORKING GROUPS**

#### **30' ..... 4 QUESTIONS ....**

- 1. From your point of view, what are the biodiversity thematics linked with MSP for which a regional support would be expected?
- 2. What additional thematics appears really relevant and prioritary in your national context?
- 3. What kind of regional support/activities would be expected, or welcomed from regional actors?
- 4. What should be the next steps? (pilot projects)

#### **3 WORKING GROUPS:**

1: TAKAMAKA Room: Somalia, Kenya, Tanzania ....

2: GRASS Room: Seychelles, South Africa, Mauritius

3: FLAMBOYANT Room: Comoros, Mozambique, France

