SCIENTIFIC INFORMATION IN SUPPORT OF THE OBJECTIVES OF UPCOMING CBD REGIONAL WORKSHOPS TO FACILITATE THE DESCRIPTION OF EBSAs

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Ecoregional Analysis and Prioritization Process in the Western Indian Ocean Islands Marine Ecoregion (WIOMER)

- Programme of the Indian Ocean Commission (IOC), implemented by WWF,
- Funded by the Fonds Français pour l’Environnement Mondial (FFEM), WWF and Conservation International,
- Results subject to intensive consultation under the auspices and direction of the Indian Ocean Commission.
Compilation of scientific data & information

Scientific data & information  WIOMER Atlas

- Bathymetry
- Oceanography
- Habitats
- Species
- Anthropogenic impacts
- Coral reef threats/bleaching
- Cyclones
- Marine protected areas
Mapping anthropogenic drivers of change for Biodiversity conservation planning in the Western Indian Ocean

Drivers of Change modeling & mapping

- Fishing activities
- Proximity to developed urban areas
- Tourism activities
- Watershed pollutions
- Shipping activities & harbours
- Land-sourced sedimentation

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Coastal Biogeographic Subunits

- Using a General Dissimilarity Model (GDM): a statistical technique based on environmental and biodiversity data and allows to spatially predict the patterns of ecological community composition.

- **Six pelagic subunits** proposed based on analyses of biophysical data (Marxan & Sites-based clustering analyses of oceanographic, physical, and biological data, such as habitats and species distributions).

- **Eleven (11) subunits** identified along with their adjacent watersheds for coastal and shallow water ecosystems.
Marine Prioritization Process

• Combining expert knowledge, and
• Marxan: a systematic conservation planning tool that indicates areas of irreplacibility of biodiversity features.
• Use of targets of 30% for both bioregions and habitats (reefs and mangroves).
• The layer resulting from the Driver of Change analysis was used as a cost layer.
Results (without Drivers of Change)

Marxan

Marxan + Experts inputs
Drivers of Change Results
(applied to planning units)
Results (with Drivers of Change)

Irreplaceability
Low
High

Marxan

Marxan + Experts inputs
Prioritized Areas + MPAs
WIOMER Proposed Priority Seascapes & Sites

1. Oceanic Basin North Seychelles
2. Mahe Plateau
3. Amirantes Plateau
4. Oceanic Basin Amirantes
5. Coco de mer
6. Aldabra
7. Cosmoledo
8. Astove
9. Providence Plateau
10. Farquhar
11. Alphonse
12. Saya de Malha
13. Agalega
14. Eastern Bank
15. Quatre Vingt Brisants
16. West coast Reunion Island
17. Le Grand Brulé
18. South West coast Mauritius
19. Ile Plate
20. Saint Brandon
21. Glorieuses
22. Juan de Nova
23. Bassas da India
24. Europa
25. Tromelin
26. West Soudan Bank
27. East Soudan Bank
28. Antalaha – Mahavelona
29. Onilahy Linta
30. Mangoky Onilahy
31. Maintirano Belo sur Tsiribihina
32. Saint André
33. Complexe Trois Baies
34. Ambre
35. Mananjary

36. North East Madagascar
37. South West Grande Comore
38. Mitsamiouli
39. Moheli
40. Vailleu Bank
41. Bimini
42. Ouani
43. Iris Bank
44. Lagon Sud Mayotte
45. Geyser Zélée Bank