

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

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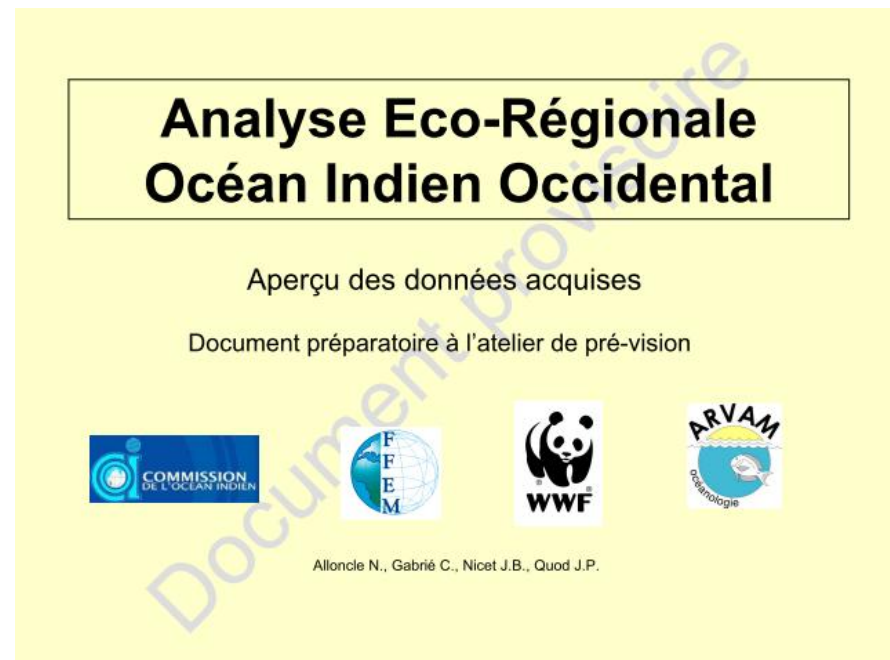
Ecoregional Analysis and Prioritization Process in the Western Indian Ocean Islands Marine Ecoregion (WIOMER)

- 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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Mapping anthropogenic drivers of
change for biodiversity conservation
planning in the Western Indian Ocean

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Prepared for:

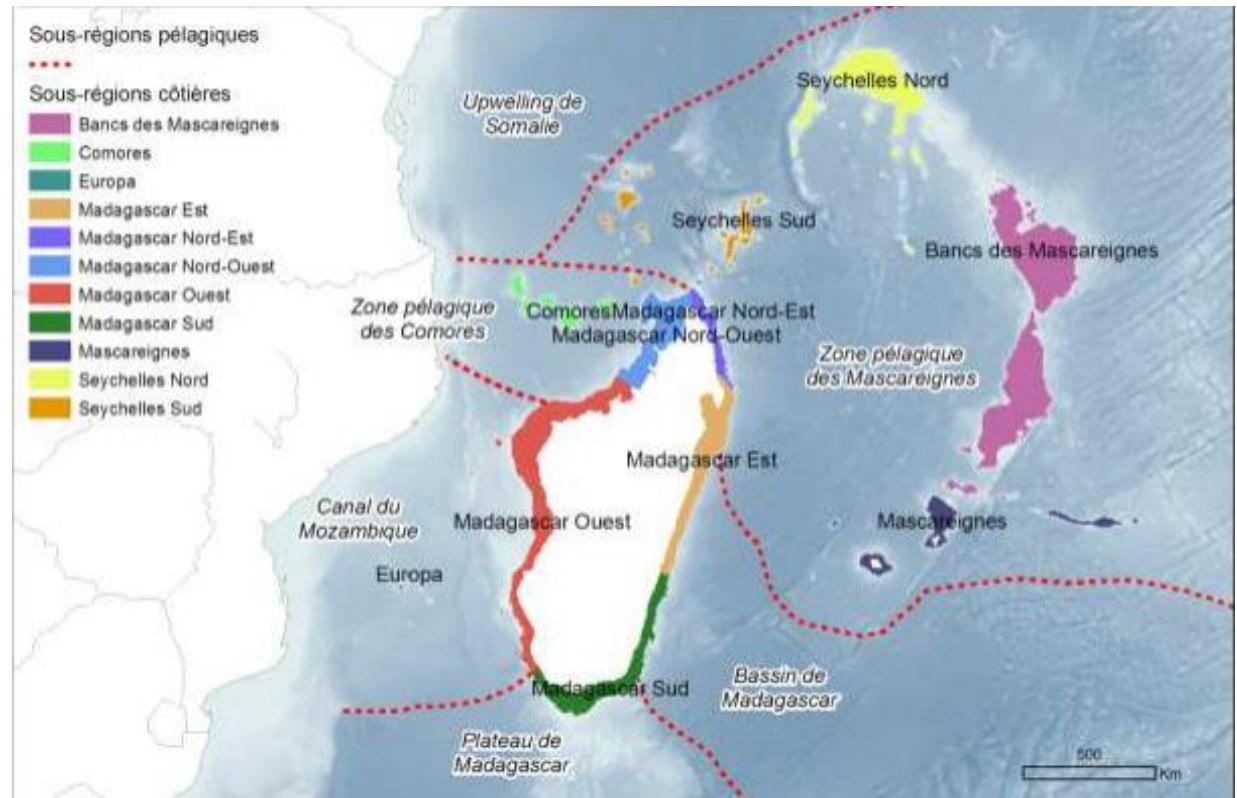
Marine Protected Area Network of the Indian Ocean Commission countries,
Indian Ocean Commission Project implemented by WWF Madagascar & West Indian
Ocean Programme Office.

This "Mapping anthropogenic drivers of change for biodiversity conservation planning in
the WIO" work was funded by FFEM.



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

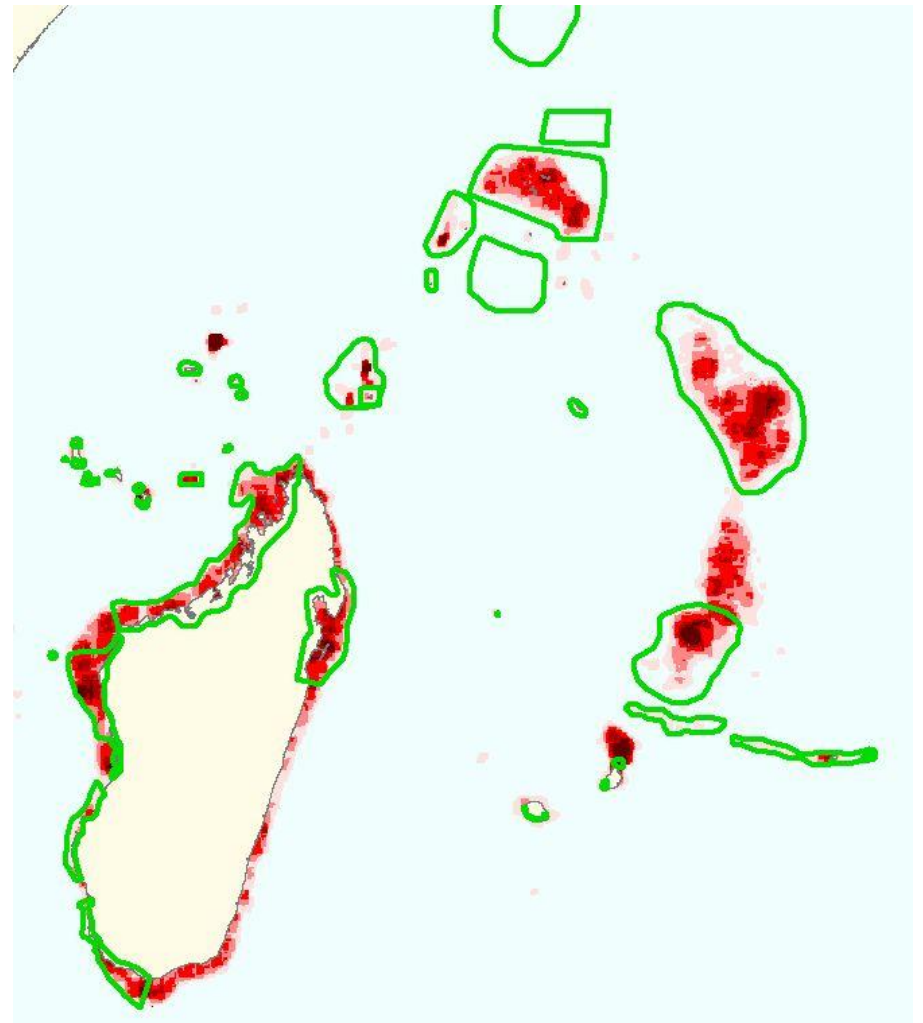
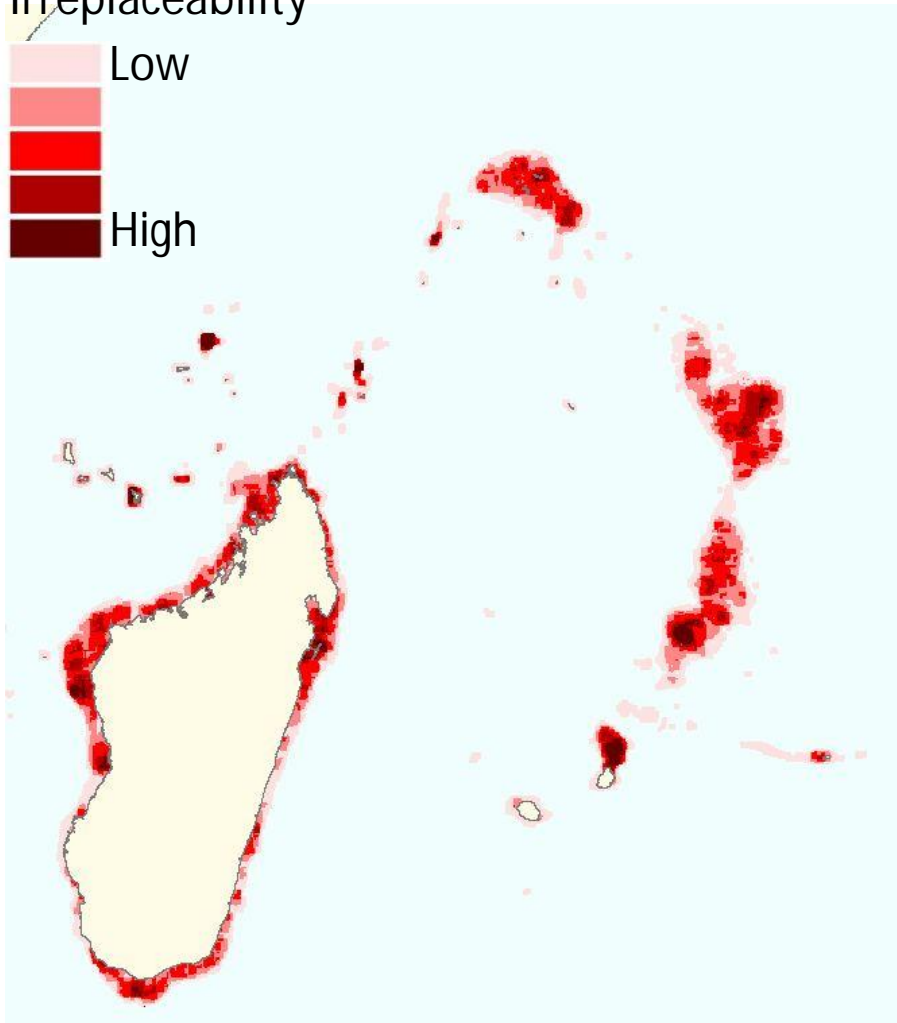
- Combining expert knowledge, and
- Marxan: a systematic conservation planning tool that indicates areas of irreplaceability of biodiversity features.
- Use of targets of 30% for both bioregions and habitats (reefs and mangroves).
- The layer resulting from the Driver of Change analysis was used as a cost layer.

Results (without Drivers of Change)

Marxan

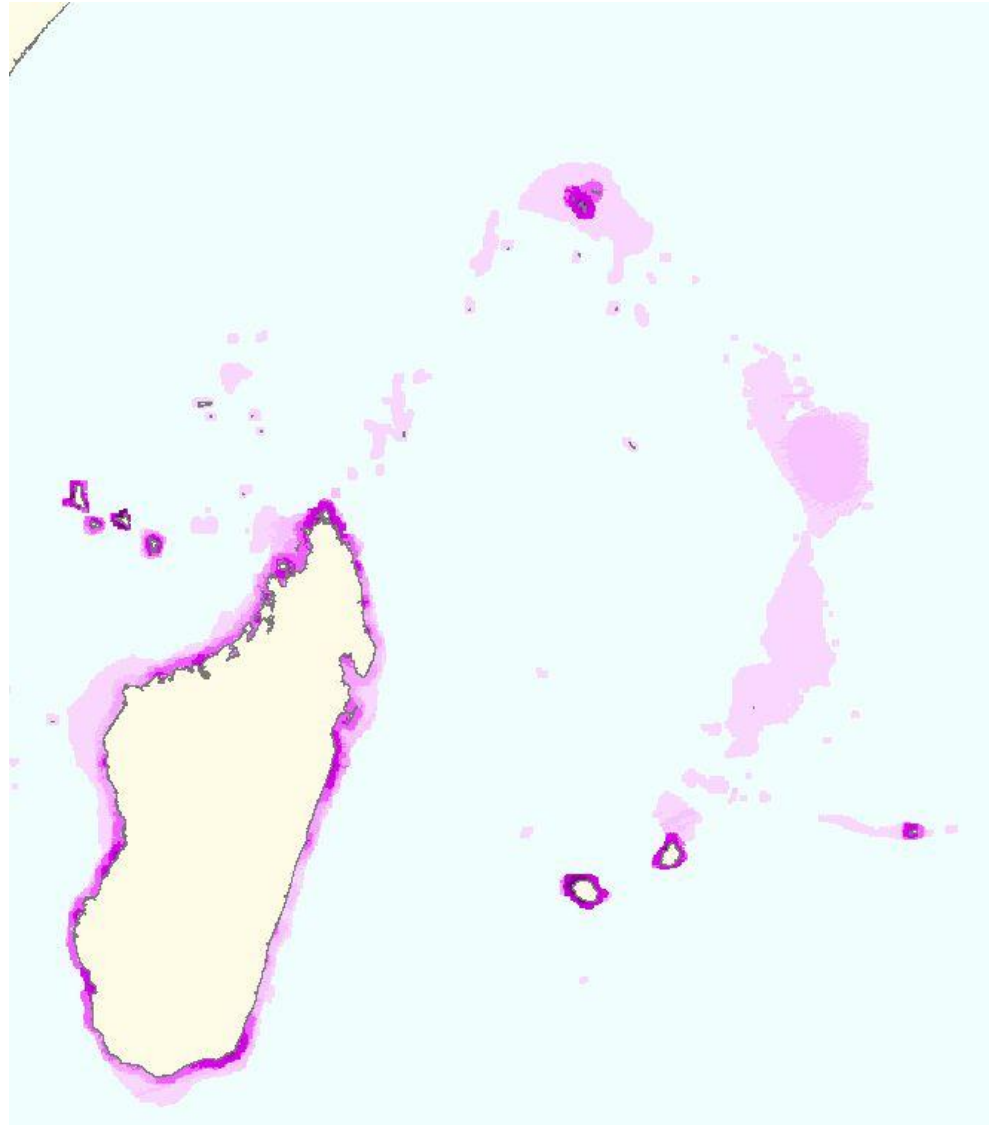
Marxan +  Experts inputs

Irreplaceability



Drivers of Change Results

(applied to planning units)

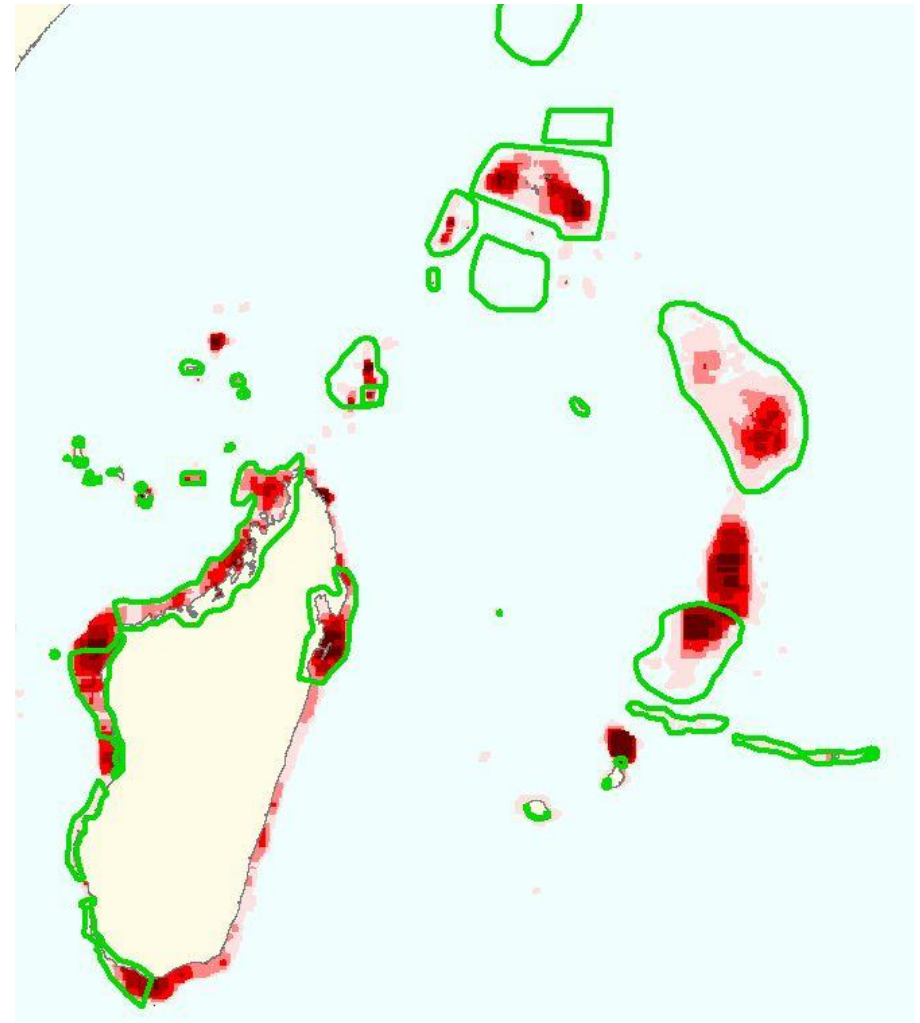
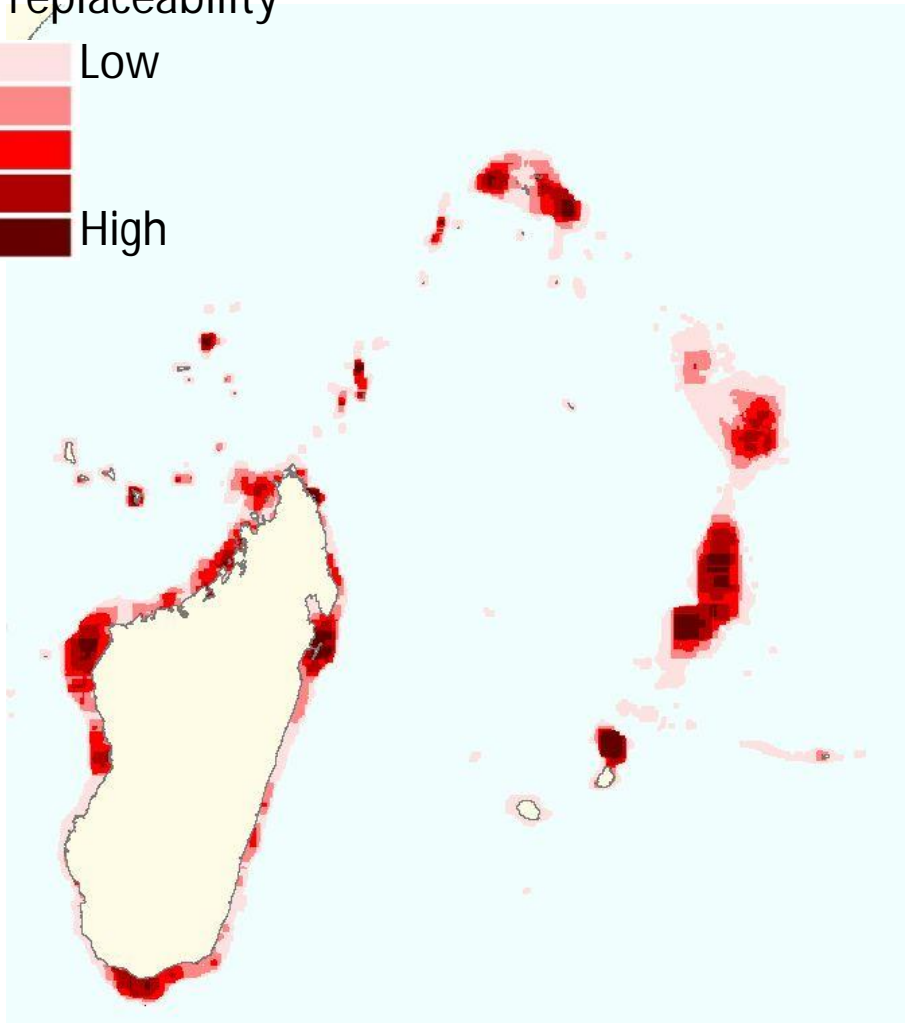


Results (with Drivers of Change)

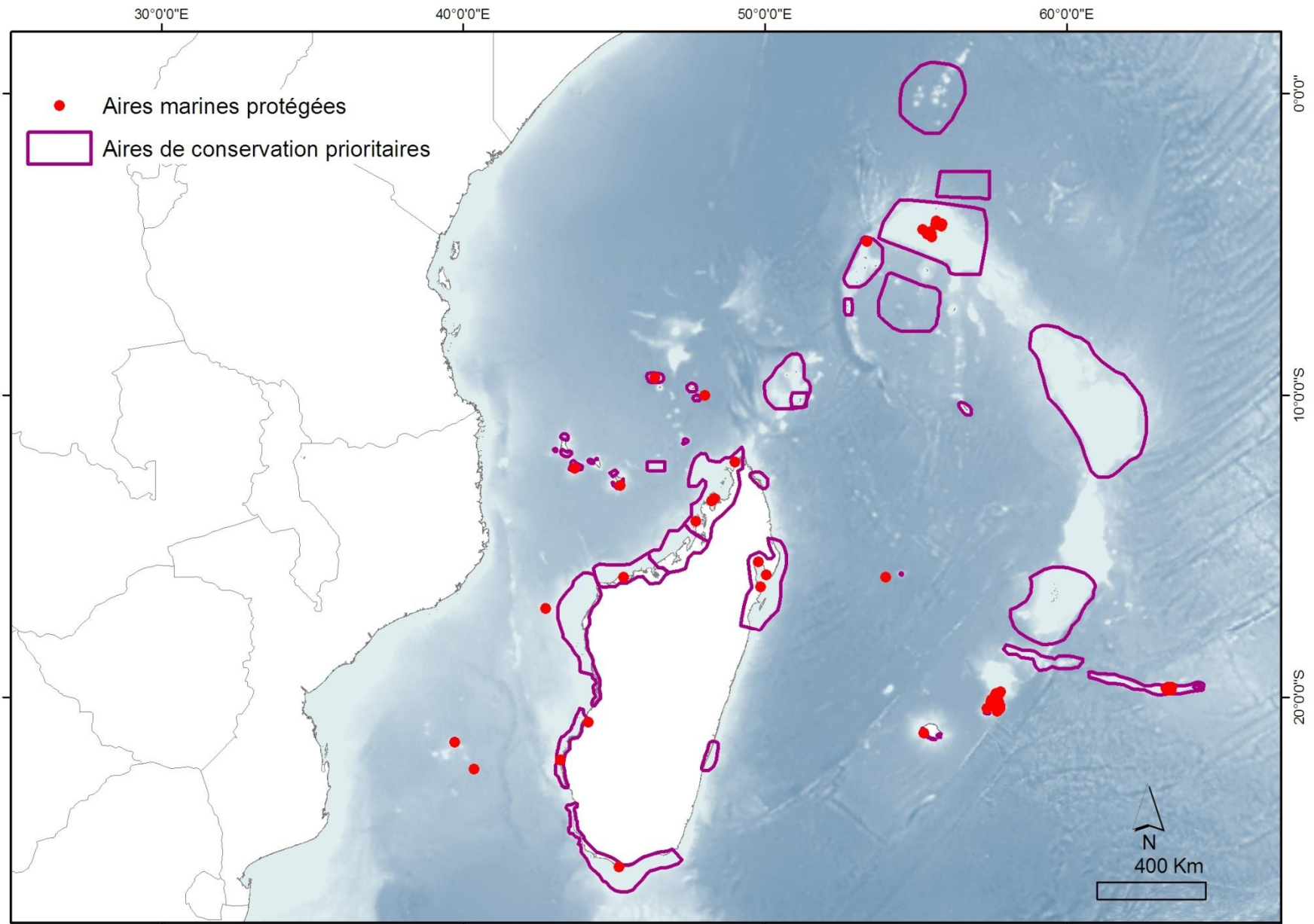
Marxan

Marxan +  Experts inputs

Irreplaceability

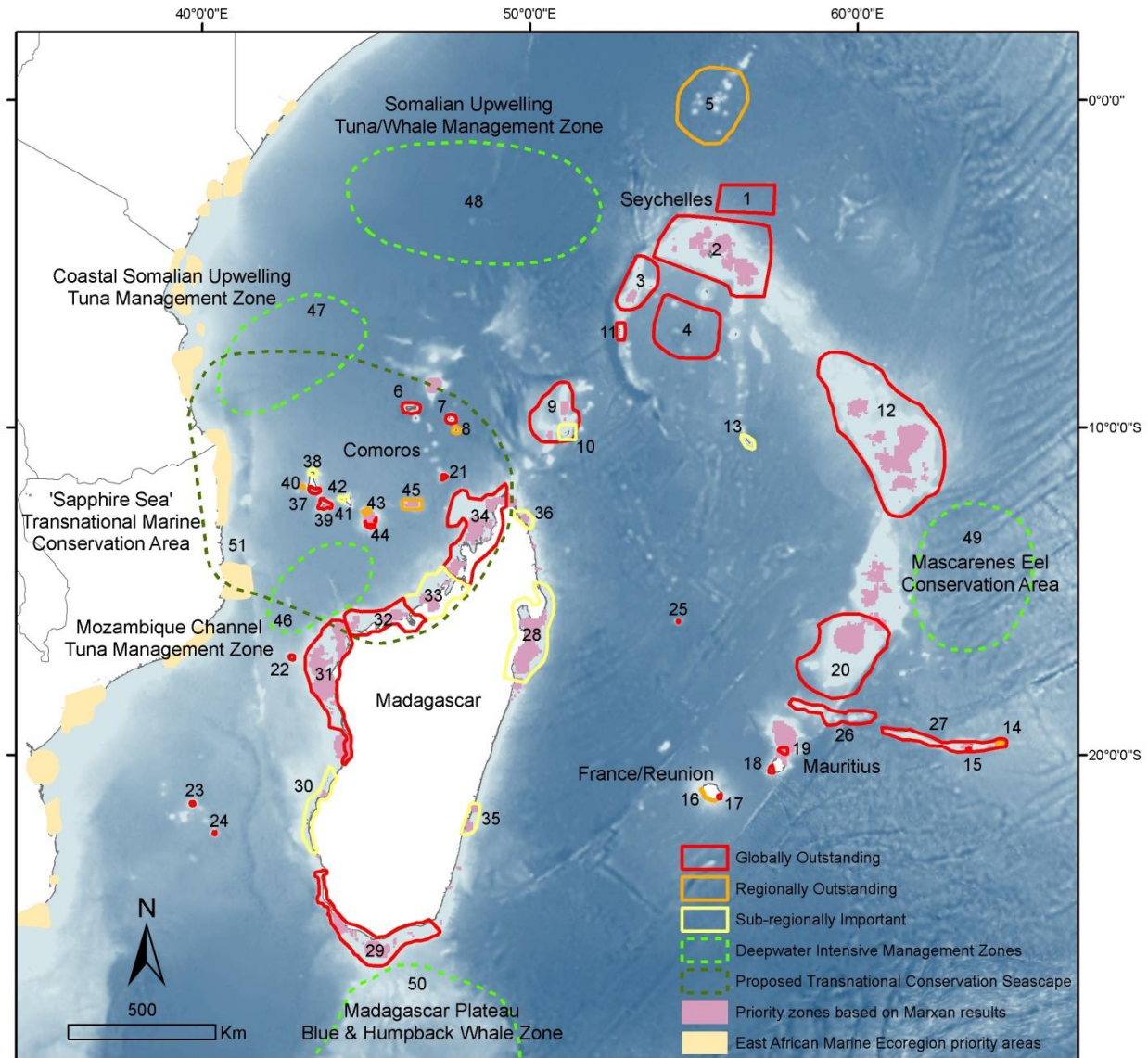


Prioritized Areas + MPAs



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- Vaillieu Bank
 41 - Bimbini 42- Ouani 43 - Iris Bank 44- Lagon Sud Mayotte 45- Geyser Zélée Bank