



# Coral Reef Monitoring Network developed by the Indian Ocean Commission

Secretariat of the Indian Ocean Commission

General Assembly of the International Coral Reef Initiative

By Said Ahamada

[Said.ahamada@coi-ioc.org](mailto:Said.ahamada@coi-ioc.org)

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# Introduction

- Creation in Nosy Be Madagascar, October 1997 as SWIOIS GCRMN Node: Comoros, Madagascar, Mauritius, Reunion/France and Seychelles.
- The objective is to contribute to the integrated coastal zone management of the Southwestern Indian Ocean Islands States through coral reef health status monitoring
- Funding: PRECOI-UE; GEF, WWF/FGEF; ReCoMaP-COI/UE; CORDIO, National funding
- Focal points and Responsible Ministries of IOC members countries

# 1. Monitoring sites/stations

Countries	GCRMN expert level	Names of sites/sector
Comoros	20	Mitsamiouli, Itsandra, Moroni, Itsamia, Fomboni, Nioumachoua, Wani, Bimbini and Moya.
Madagascar	60	Main tirano, Grand recif Tulear, Belo sur mer/Andranopasy, Andavadoaka, Beheloka, Itampolo, Androka.
Mauritius/ Rodrigues	46 (35+11)	Trou aux Biches, Bambou virieux, Anse la raie, Albion, Blue Bay, Ilot au benitiers, Baie du Tombeau, Pointe aux sables, Belle ombre , Belle Marre, Trou d'eau douce est, Poude d'or, Bacalava, Riviere banane, Ile aux fous, Grand bassin, Passe demie, Passe cabri, North aux iles aux sable.
Reunion	31 (14+17)	Saint Giles, Saint Leu, Saint Pierre, Etang Sale.
Seychelles	27	Baie Ternay, Ste Anne, Curieuse, Port Lonny, Airport, Ile Terese, Conception Islands, Anse Major, Whales Rock, Whillies Bay, L'Ilot , Corsair, Therese Islands
<b>Total</b>	<b>184</b>	

## 2. Contents of monitoring

- Phyco-chemical parameters: temperature and salinity
- Biological parameters:
  - Benthos for coral cover: LIT and Quadrats
    - Scenario 1 and 2 → GCRMN expert level and Reef Check level
  - Fish accounts: from 2 categories to 12 indicator species
  - Marine biodiversity inventories
- Socioeconomic parameters: coral reef and associated ecosystems activities and management

# 3. Monitoring partnership

- **International:** GCRMN, Reef Check
- **Regional:** Nairobi convention coral reef task force, CORDIO, IOC MPA Managers Network
- **National:** MPAs, Ministries of environment, Universities, NGOs, CBOs

## 4. Participation in international efforts

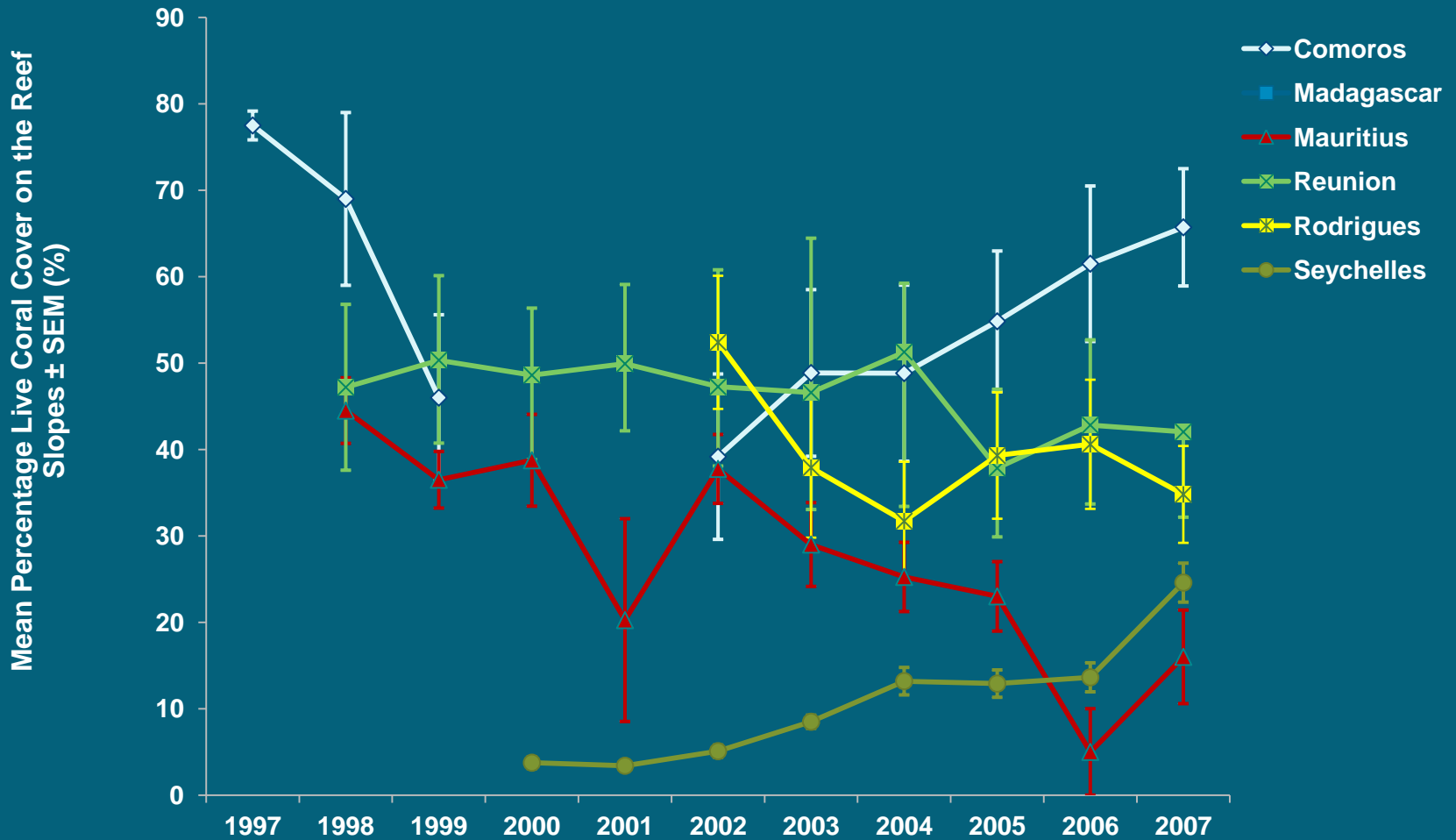
- Contribution to GCRMN Status reports
- Mauritius Strategy for the Small Islands Developing States
- International Convention on Biological Diversity
- ICRI

# 5. Outputs

- Coral reef Monitoring guidelines
- Guidelines for vulnerability shallow coral reef mapping
- Atlas of Vulnerability of shallow coral reefs
- COREMO DATA BASE
- Training and Equipment
- Annual regional reports
- Contribution the GCRMN status report



# 6. Key findings (1): 2008



## 6. Key findings (2): 2010

Comoros	<ul style="list-style-type: none"> <li>- Important recovery observed since 1998 bleaching</li> <li>- important degradation observed in the 2 last years in usual healthy reefs especially in the marine park of Moheli</li> <li>- 46% coral cover</li> </ul>
Madagascar	<ul style="list-style-type: none"> <li>- 380 coral and 788 fish species inventoried</li> <li>- Recent studies concluded on severe degradation of coral reef around Madagascar due to cyclones and human activities</li> </ul>
Mauritius	<ul style="list-style-type: none"> <li>- 159 coral species inventoried</li> <li>- Important decline in coral cover during the last years. But coral are still healthy in reef slope of Rodrigue Islands for about 45% Coral cover</li> </ul>
Seychelles	<p>Important recovery since 1998 except 2008 and 2009 where is noticed a decline of about 1 to 2% of coral cover</p>
Reunion	<ul style="list-style-type: none"> <li>- Serious decline of coral cover mainly <i>Acropora</i> in the reef slopes of Saint Giles and Etant Sale during the last decade</li> <li>- stable coral cover in degraded reef flat but unstable in healthy reef flats</li> <li>- Observed bleaching in 2009</li> <li>- 20% Coral cover</li> </ul>

# 7. Notable successes and challenges

- Successes

- Coral reef monitoring capacities built and strengthened
- Establishment of a regional pool of expertise
- Regular monitoring in the field

- Challenges

- Centralization and harmonization of data from different stakeholders
- Difficulty to conduct properly the coral reef monitoring in Comoros, Rodrigues and Madagascar due to financial shortages
- Regularity of the regional meetings and reports
- Formalization of the network and institutional anchorage
- Sustaining financial capacities

# Conclusion

- Much initiatives highlighting importance of coral reef but few concrete supports to coral reef monitoring and conservation
- Survival of the network despite funding shortages
- Perspectives for:
  - strengthening the existing coral reef facility with the SISDS-SM
  - coral reef conservation and restoration with the FGFEF project on marine conservation and ICZM
  - network management and data exchange with the biodiversity management program
- The vision is the set up of an South western Indian Ocean Islands States coral reef observatory and trust fund

**THANK YOU**