



Regional Workshop on Ecosystem Monitoring

Status of National Data Centres and Successes and Challenges in Data Collection

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Current Status and Successes in Data Collection

CORAL REEFS

SEAGRASS

Datas on coral reefs (CR) monitoring are collected with contributions from member institutions of the Madagascar Coral Reef Network: **IH.SM, KORAI, Blue Ventures, MIHARI, CNRO, Conservation International, WWF, WCS, PRISM, and MNP**

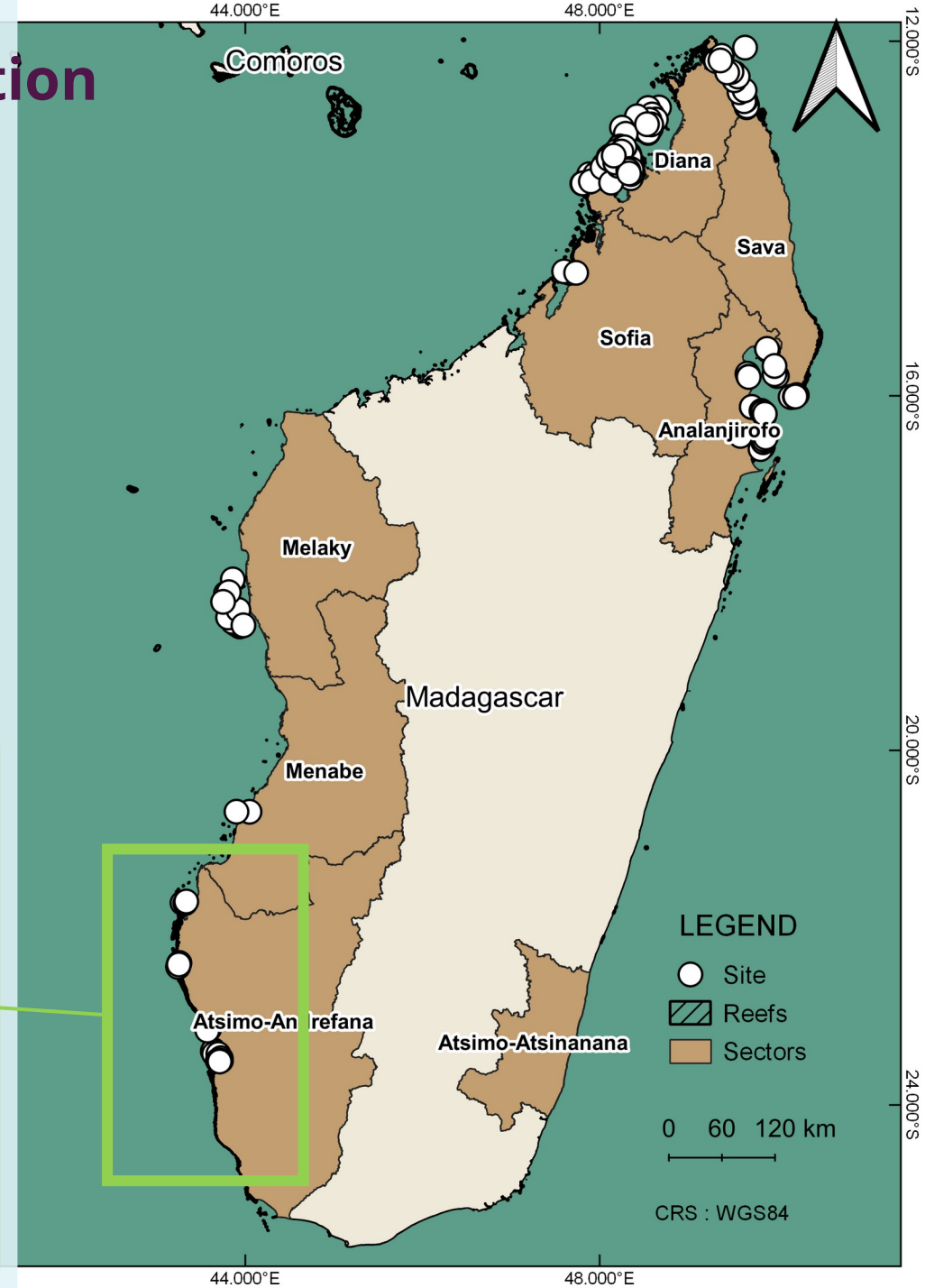
What have been done so far

- A standardized metadata system has been established to ensure consistency and uniformity in data collection and uses
- National report on the health of coral reefs
- Contribution to the regional and global CR report

Data collection underway [starts in the SW, will cover the country] :

on fauna (macroinvertebrate and ichthyofaunal), flora (specific diversity and biomass), physico-chemical parameters (substrate granulometry, temperature, light intensity, salinity, pH and dissolved oxygen) and data from the restoration sites.

Research on transplantation technics, Training of local communities (LC) on seagrass restoration and participative monitoring, Communities-led seagrass restoration initiative and awareness, Flowering and Fruitification monitoring, ecosystem value



Under continuous development since 2022 ...

WELCOME TO

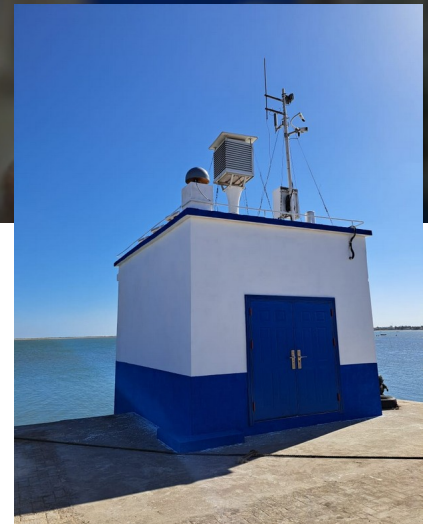
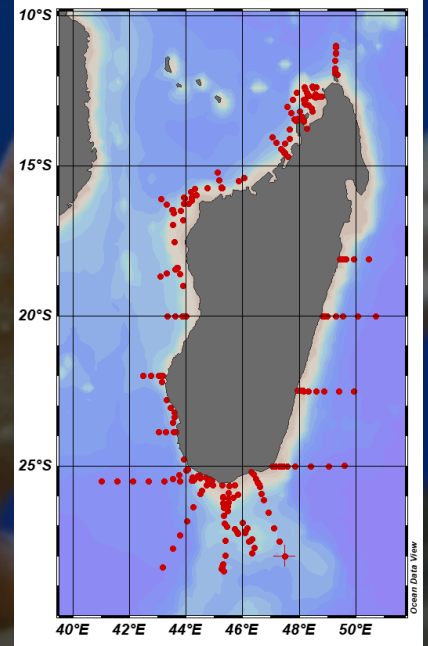
Madagascar Coastal and Marine Atlas

Public Map

Access Our Database

ARMS Resotre

Fisheries & Corecrabe



Types of data

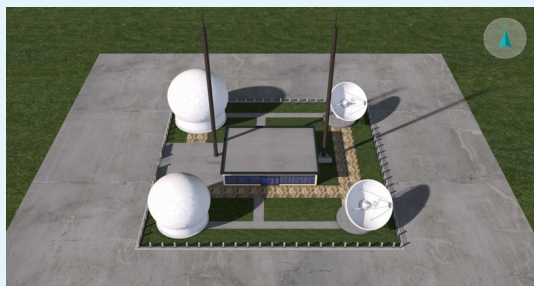
- Physical oceanography (from satellites, digital models, or research expeditions)
- Coastal habitats
- Ocean parameters
- Marine biotechnology
- Fisheries and Aquaculture
- Deep sea ecology
- Sea level rise obs. (FIO)
-

Challenges in Data Collection

- Delays and incomplete data : Some institutions are reluctant to share their data or require approval from higher management levels (**sometimes from their Global Head quarter**).
 - Some data is not in raw form, hindering consistent and uniform analysis and results.
- **Very heterogeneous data on marine habitats in Madagascar**

What is next ?

- Datas will be used for GCRMN reports and publications 2025-2026 and the NCRA process.
- On-time National Report on Coral Reefs **and Other Ecosystems**
- Development of training programs and monitoring methodology adapted to local stakeholders and **for a minimum standard methods**
- Water quality monitoring / pollution
- Satellite ground station (Collaboration with SIO)



Needs:

- Training staff on ocean and coastal modelling
- Develop products that would be easily accessed by end-users
- Workflow automatisation for data visualization and dissemination
- **Improve data infrastructures**
- **Funding for the maintenance of the infrastructures**

Habitat	Data source	Surf_km2
Mangrove	Bunting et al., 2016	2587
	Bosire et al., 2016	3140
	Global Mangrove Watch (2016)	2580
	Ocea, IH.SM (2013)	2822
Coral reefs	UNEP-WCMC, WorldFish Centre, WRI, TNC (2010). Global distribution of coral reefs	3400
	Obura 2016, Coral and Biogenic habitats	2230
Seagrass	RCMRD	1046
	UNEP-WCMC, Short FT (2017). Global distribution of seagrasses (version 6.0). Sixth	255.4
	Allen Coral Atlas, 2020	2760

Medium and Long term goals

Available physical oceanographic data

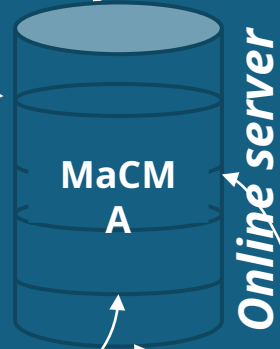
Current research projects at IH.SM

Other Master and Doctorate researches

NGO

Private sector

Public sector



Feed back, Adapt, Improve

Feed Regional or Global Platforms



Physical servers



END USERS

NEEDS:

1- Internet

2- Wiring

3- Online server

4- Anti-power cut

5- **Recruitment of engineers in networks and database and data analysts**

6- Security system

7- New premises for the storage of servers (because too noisy)

8- Cooling system

HISTORICAL INFORMATION

- 1997-2000: Entry of Madagascar in the ODINAFRICA Consortium
- December 6, 2000: Establishment of the NODC within the IH.SM by the 4 Ministries (Higher Education, Scientific and Research, Environment, Meteorology with the support of IODE, ODINAFRICA, IOC-UNESCO, etc.)

MISSION

- Collect
- Archiving
- Quality control
- Dissemination of oceanographic data and information in various formats to users



NODC
National Oceanographic Data Center
MADAGASCAR

Aina Le Don NOMENISOA,

Head of the Madagascar National Oceanographic Data Center

National Focal Point of IOC-UNESCO

**Misaotra !
Thank
you. Merci.
Obrigado.
Asanteni.**



**ASCLME scientific cruise 2009
The Malagasy TEAM (from IH.SM)**