

Improving marine data accessibility and use in the Western Indian Ocean

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“data is the new oil”

Clive Humby-2006

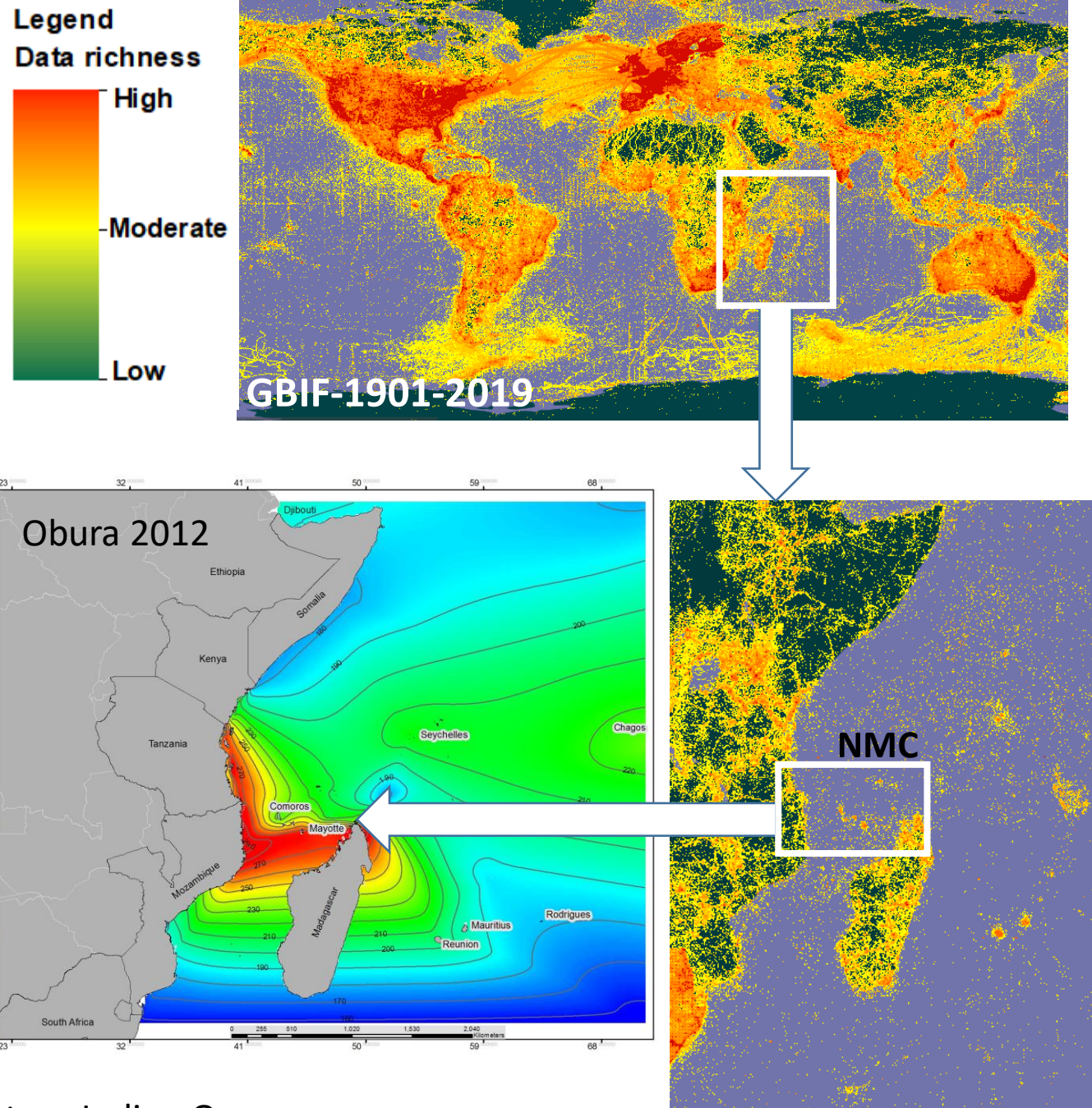
- If “crude” **data** can be extracted, refined, and **pipelined** to where it can impact policies in real time, its **value will soar**.
- If data can properly be shared across an entire ecosystem, and made accessible in the places where analytics are most useful, then it will become a real game changer, altering the way we make our management decision.



**Data is useless if left unrefined & shared:
it only creates value once it's “mined”, analysed, and “pipelined”
to the right channel.**

The Problem

- Biodiversity data from the WIO is not being **actively curated** and made available in **open platforms**
- Data & info is therefore **inaccessible** to decision-makers, managers, nor scientists and assessment processes
- Consequently, WIO has been relatively **ignored and underemphasized** in global biogeographic analyses
- Data gaps have **masked** the true level of biodiversity of this region.



MASPAWIO

Marine Spatial Atlas for the Western Indian Ocean

An open access geospatial data repository for the Western Indian Ocean

MASPAWIO provides access to marine spatial datasets, providing layers useful for marine spatial planning, management and research, from multiple primary and secondary sources, and contributing compiled information into other regional and global repositories.



120 Datasets

Click to browse and download spatial data in standard formats.

[Explore layers »](#)



14 Maps

Browse and generate maps which can be shared publicly or restricted to specific users only.

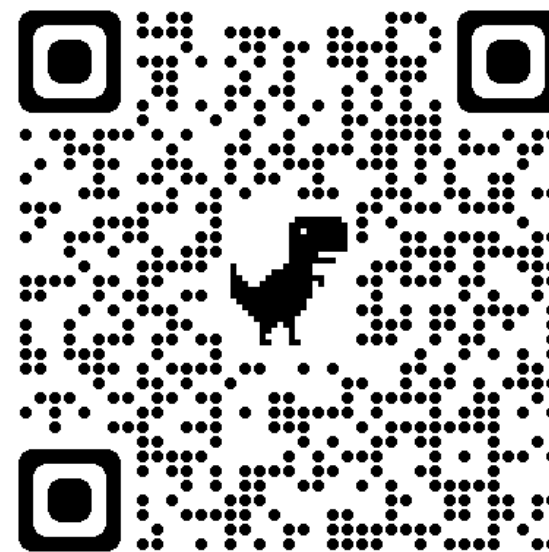
[Explore maps »](#)



11 Projects & Institutions

Discover various Geospatial datasets by different contributors and projects.

[See Projects »](#)



MASPAWIO focuses on the following countries in the Western Indian Ocean and Red Sea/Gulf of Aden



Comoros



Djibouti



France



Kenya



Madagascar



Mauritius



Mozambique



S.Africa



Seychelles



Somalia



Tanzania

About

MASPAWIO

Marine Spatial Atlas for the Western Indian Ocean

<http://maspawio.net>

- Open access web portal-host marine related dataset (ecological & physical data)
- Runs on GeoNode – Open source Spatial Data Infrastructure
- Hosted – Amazon Cloud Service (approx. USD 45/month)
- MASPAWIO started in **2015** and **2016** as a demonstrator tool for Marine Spatial Planning (MSP) in the countries of the Western Indian Ocean
- **2016-2017**- WIOMSA –Mozalink-project, and the Inter-Governmental Authority on Development (IGAD)-Mobilising Marine biodiversity project
- **2018-2023** Funding has been provided by the Norwegian Agency for Development Cooperation(Norad) through the Innovating and sharing knowledge for coastal resilience in Eastern Africa Project



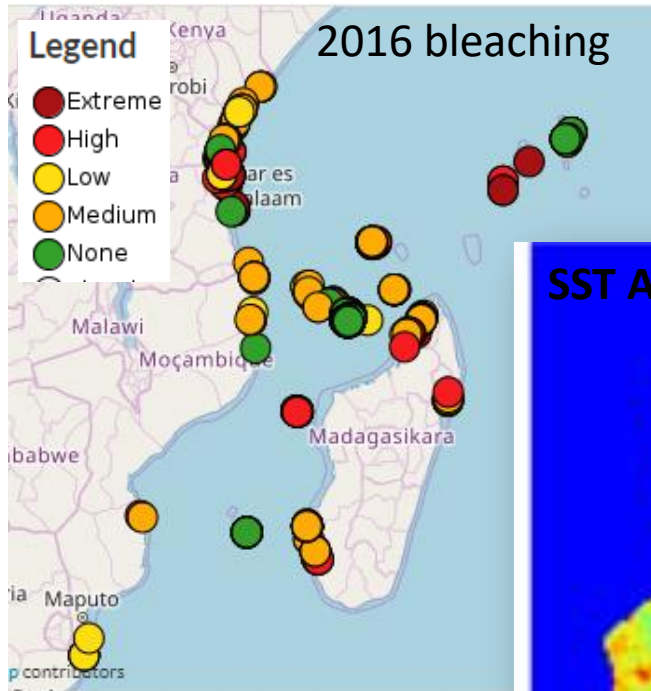
Norad

Norwegian Agency for Development Cooperation

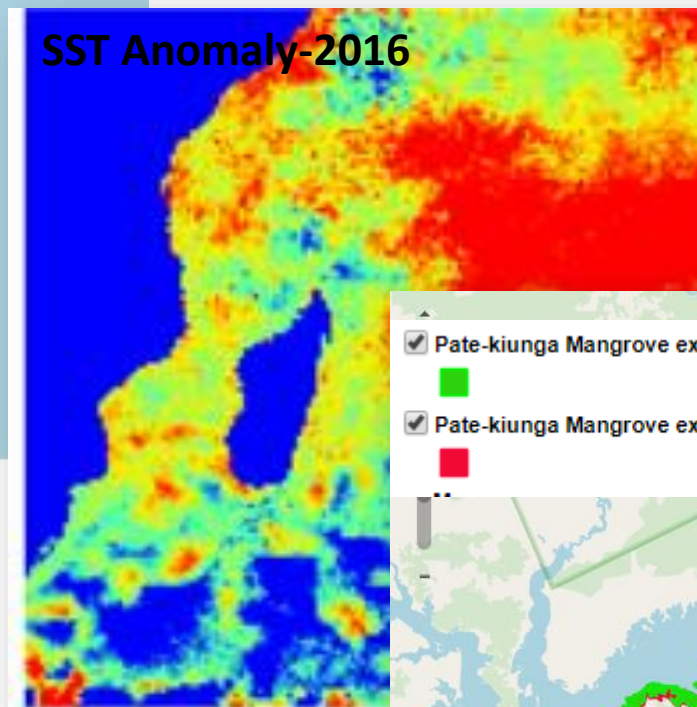
Portal status

<http://maspawio.net>

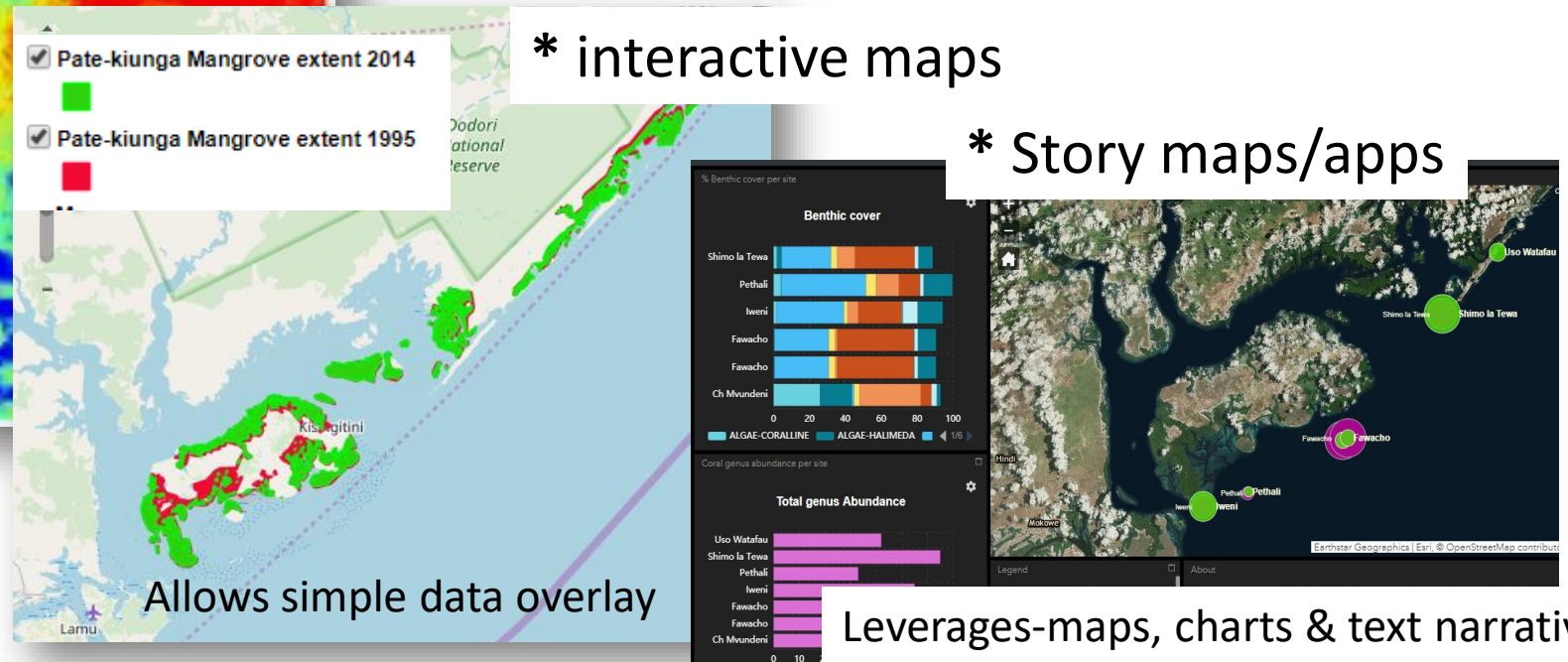
- MASPAWIO currently hosts a total **120** static layers



- Vector = 34 (points, lines & polygons)



- Raster= 81-(digital aerial photographs, imagery from satellites, digital pictures, or even scanned maps)



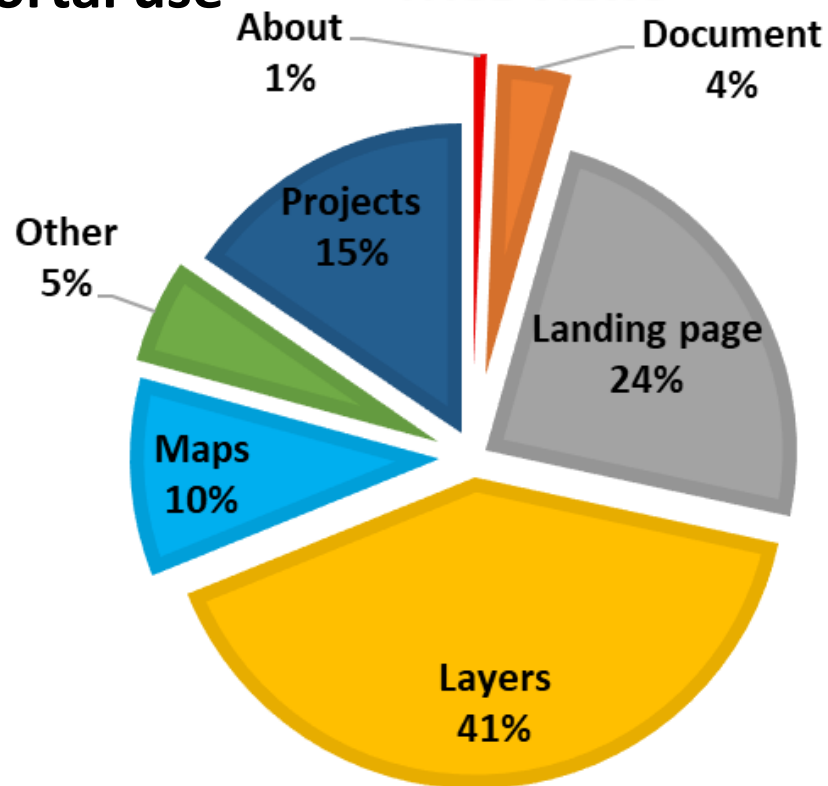
Portal analytics and use

- 15K page views

- users

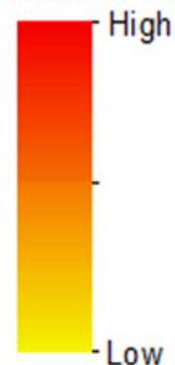
Portal use

PAGE VIEWS



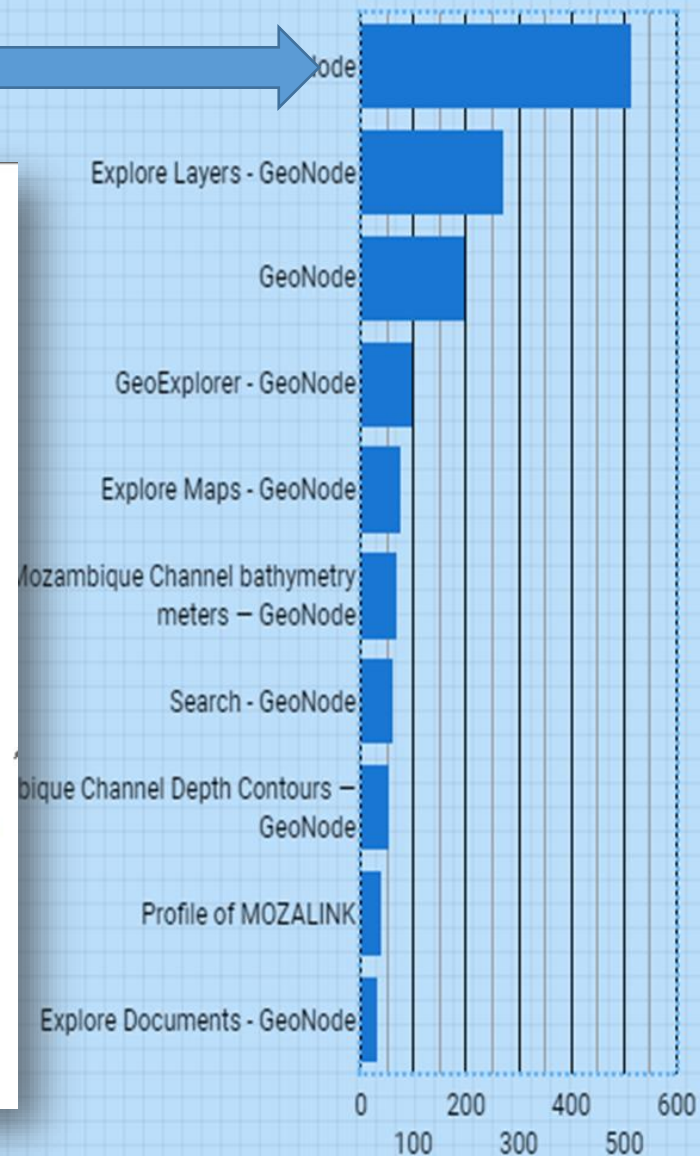
Users per country

Number of users



Popular pages

Pageviews



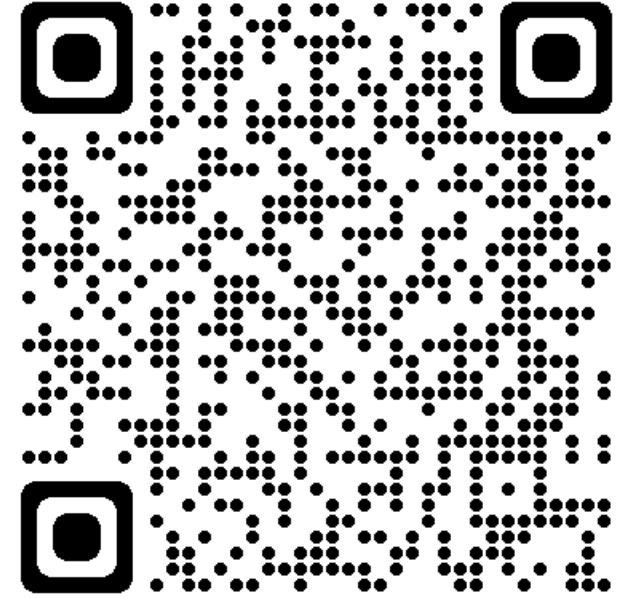
https://cordio-data-portal-cordioea.hub.arcgis.com

CORDIO Data and Information Portal

Search, Visualize, Download, & Create Maps

Search data

This platform is used to share data, information, and, knowledge to enable active participation in the management and conservation of marine ecosystems and resources. Users can explore, visualise, print and download data to solve important marine related issues. Let's achieve our goals together!



Explore our data and information by category

Ctd

Benthic monitoring effort at coral reef sites in the Western Indian Ocean

This interactive map shows GCRMN coral reef monitoring sites and their period of survey in the WIO. Zoom, drag, and click to explore.



Legend

Period of most recent survey

- Before 2010
- 2010-2015
- 2016 and after

#Years surveyed

- 1
- 2-6
- 7-12
- 13-17
- 18-23

#Total site

1,008

#Sites (Before 2010)

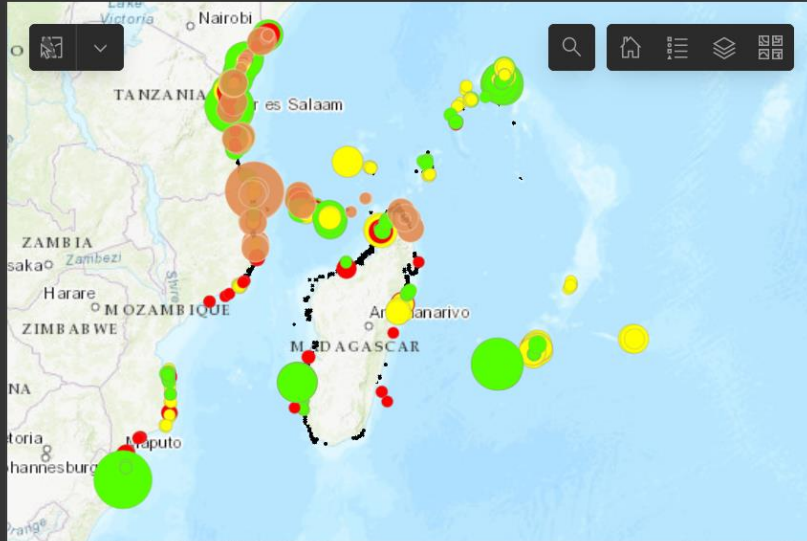
209

#Sites (2010-2015)

406

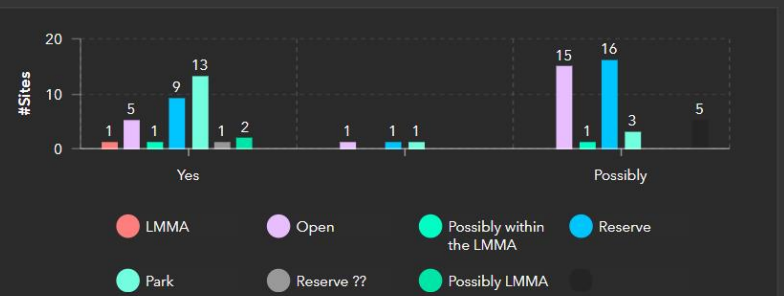
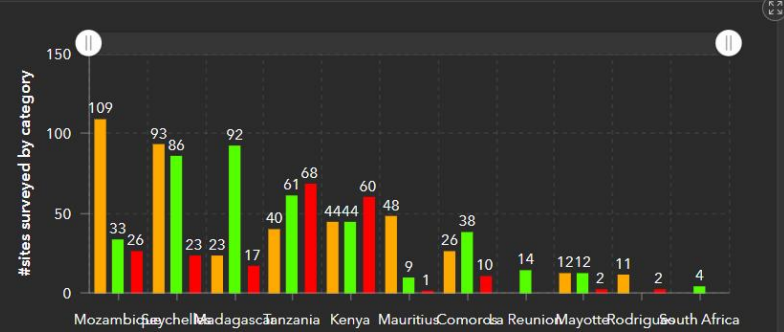
#Sites (2016 & after)

393



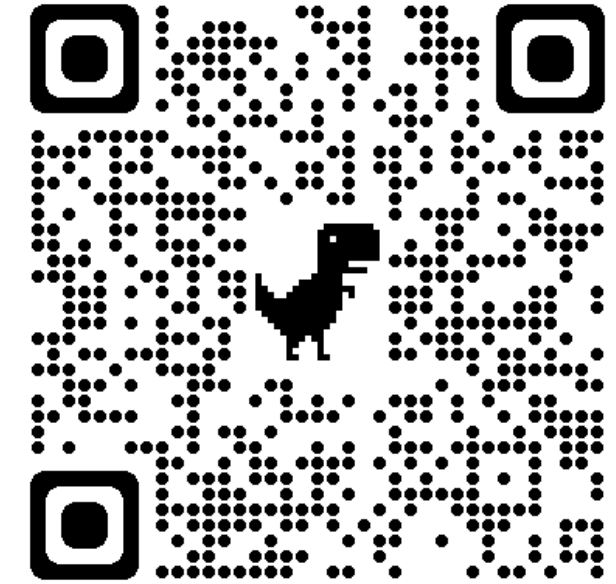
Esri, HERE, Garmin, FAO, NOAA, USGS Powered by Esri

This dynamic map shows coral reef monitoring sites in the Western Indian Ocean where benthic data has been collected, in relation to the most widespread recent coral bleaching events in 2010 and 2016. Each site has been categorised into 3 color groups (red, yellow, green) based on the last year of survey - before 2010 (old), 2010-2015 (yellow), and 2016 or after (green). The size of each circle represents the number of years each site has been monitored with larger circles indicating a larger number of years (5



Kenya potential reef survey sites grouped by preference and categorised by management regime

Last update: 4 seconds ago



<https://cordioea.maps.arcgis.com/apps/dashboards/a0b59a388e6847f2ae4c4f0d340f9fb2>

Challenges

- Data sharing bureaucracies
- **Data hoarding**

Ongoing developments

- Improve on the **content** and **utility** i.e. generate targeted indicators and make them available through the portal
- **Channel** MASPAWIO data to more formal regional and global repositories such as the i.e. **Nairobi Convention Clearing House Mechanisms** and **Ocean Biogeographic Information System (OBIS)** etc.
- Integrate the portal with an **Integrated Publishing Toolkit** instance that allows for data publication into the **Global Biodiversity Information Facility (GBIF)**, generation of citable metadata



Data deposition



Data accessibility

Solutions

The screenshot shows the GitHub interface for a private repository named 'CORDIOEA / CORDIOEA-WIO-GCRMN-data-training-course'. The repository is currently empty, with 0 stars, 0 forks, and 1 watch. The 'Wiki' tab is selected, showing a 'Home' page. The page was last edited by 'jmbugua' on June 11, 2021, and has 2 revisions. The main content of the page is a welcome message and a paragraph describing the Global Coral Reef Monitoring Network (GCRMN). A sidebar on the right shows a list of pages, with 'Home' selected and 'Context and Approach' listed below it. The sidebar also indicates there are 30 pages in total.

Search or jump to... / Pull requests Issues Codespaces Marketplace Explore

CORDIOEA / CORDIOEA-WIO-GCRMN-data-training-course Private

Edit Pins Watch 1 Fork 0 Star 0

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

Home

jmbugua edited this page on Jun 11, 2021 · 2 revisions

Welcome to the *WIO Global Coral Reef Monitoring Network data training course* wiki!

The [Global Coral Reef Monitoring Network \(GCRMN\)](#) is one of the few global sources of quantitative data on the status and trends of coral reef systems globally, providing an information source to global observation networks (e.g. GOOS) and policy-relevant indicators. A vital component of the GCRMN structure is the formation of regional nodes, that serve as an intermediary between local data providers and the broader global network. In addition to the aggregation, standardising and reporting of individual country data within a GCRMN region, the regional nodes also play a key role in training and capacity building for local data providers (GCRMN Governance & Implementation Plan 2019).

Pages 30

Home

Context and Approach

- Why be excited about this training course
- Links to SDG Goals and CBD Aichi Targets

Sharing is Caring

Thank you!

Comments/suggestions/questions

