

The Fourth Global Bleaching Event

The Western Indian Ocean and the Story so Far

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14th May 2024

Image: Dr Ewout Knoester, Kisite-Mpunguti, Kenya – April 2024

CORDIO


The Western Indian Ocean



 **10**
Countries

 **65**
Million People

 **11,000 – 20,000**
Marine Species

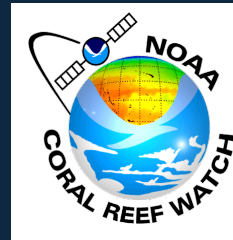
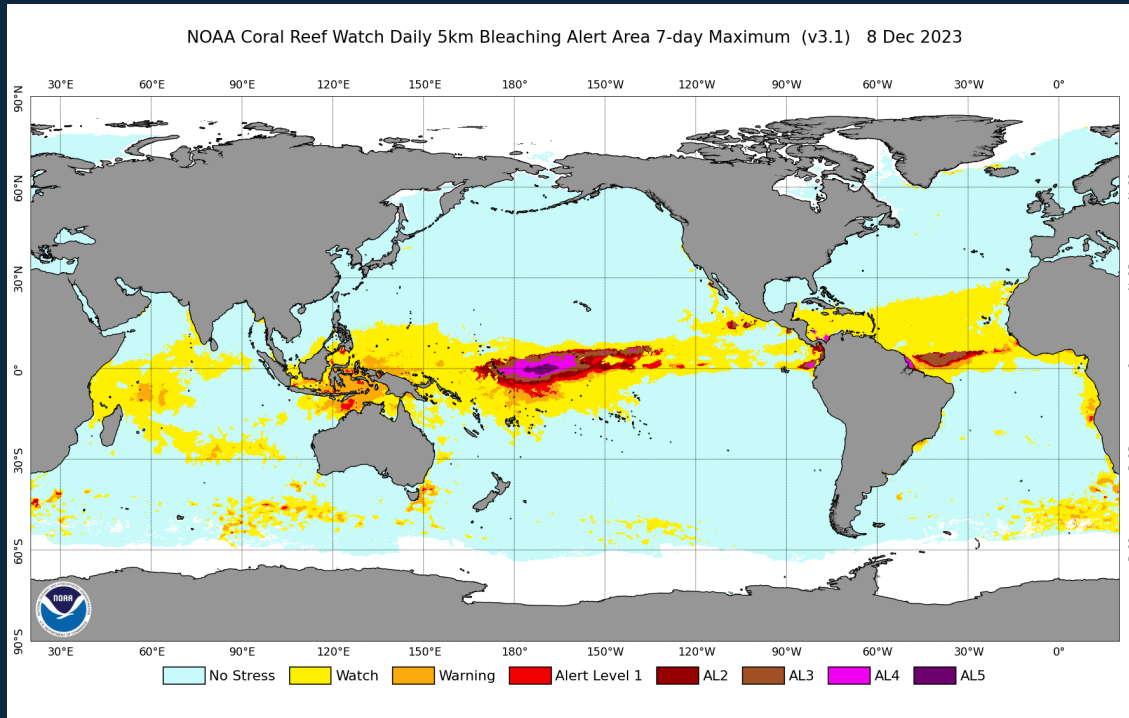
 **22%**
Endemism

 **38%**
Coral Species

 **20**
Billion Annually



Preparing for the 2024 Bleaching



Preparing, Monitoring, and Responding to Coral Bleaching in the Western Indian Ocean

Presenters:



Dr. Karin Moejes

Senior Scientist & Manager
CORDIO East Africa



Dr. Derek Manzello

Coordinator
NOAA Coral Reef Watch



Swaleh Aboud

Scientist & Project Manager
CORDIO East Africa



James Mbugua

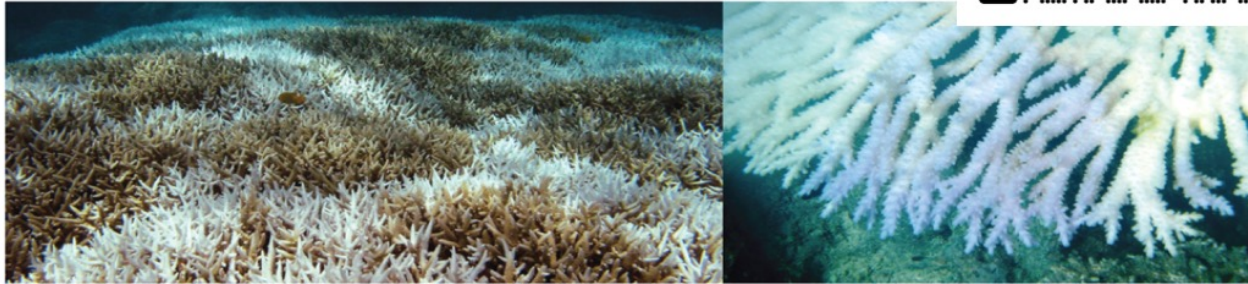
Project Manager
CORDIO East Africa

Host:

Caitlin Lustic, South Florida
Marine Conservation Manager
The Nature Conservancy



Preparing for the 2024 Bleaching



CORAL BLEACHING MONITORING GUIDE WESTERN INDIAN OCEAN - 2016

Compiled by David Obura



Funded by
the European Union



Indian Ocean Coral Bleaching Reporting Form

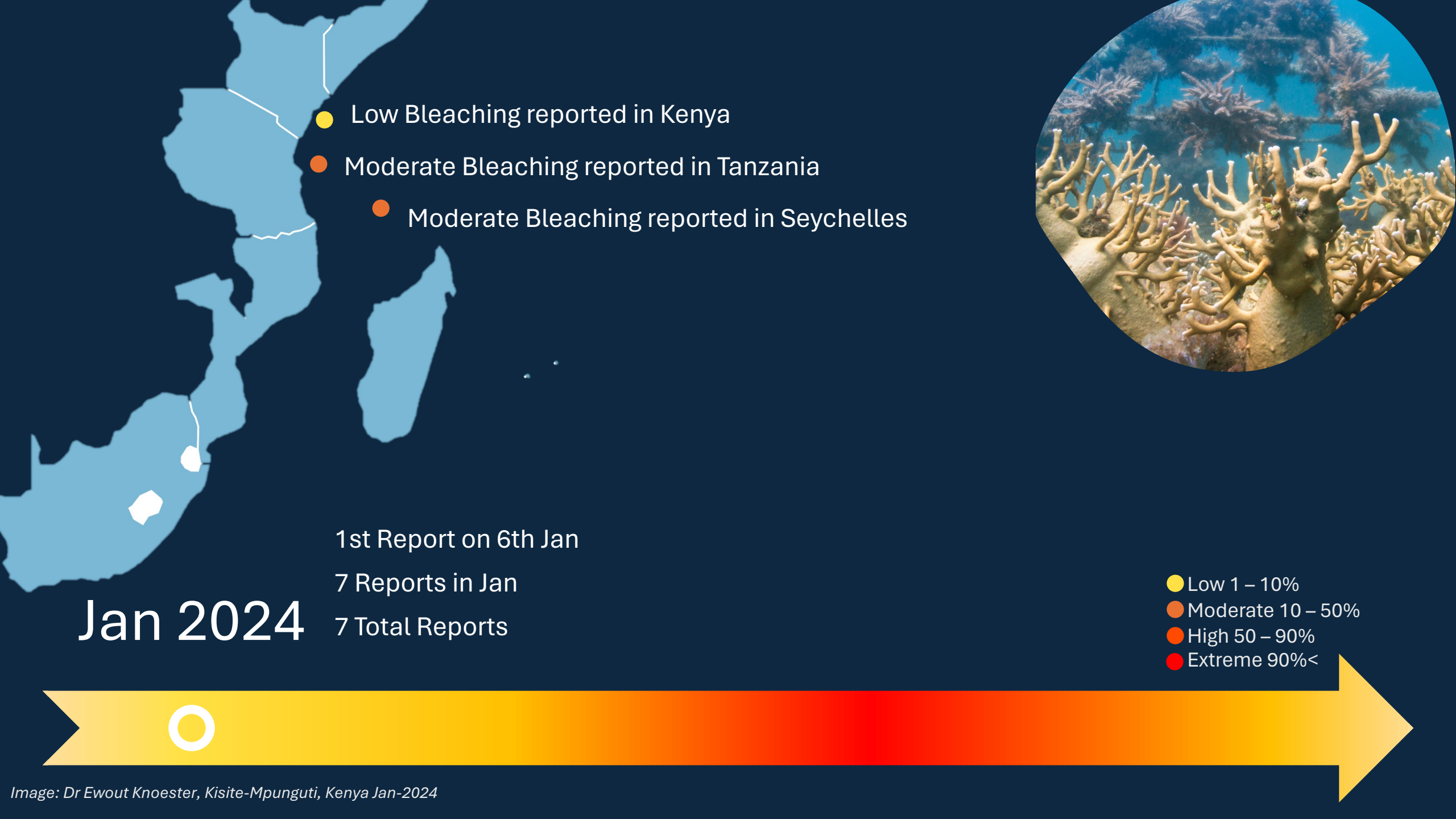
Dear partners,

In our efforts to better understand the impacts of coral bleaching events in the region, we are seeking consistent, basic-level coral bleaching data from our partners across the region. Please use this form to contribute to this initiative. When you dedicate approximately 15 minutes to applying the method outlined below, please submit this form.

Method:

- Conduct a 5-minute timed swim and observe the reef.
- Examine all visible hard corals, noting their growth shape (refer to the table below).
- Estimate the percentage of coral cover bleached in the area.





- Low Bleaching reported in Kenya
- Moderate Bleaching reported in Tanzania
- Moderate Bleaching reported in Seychelles



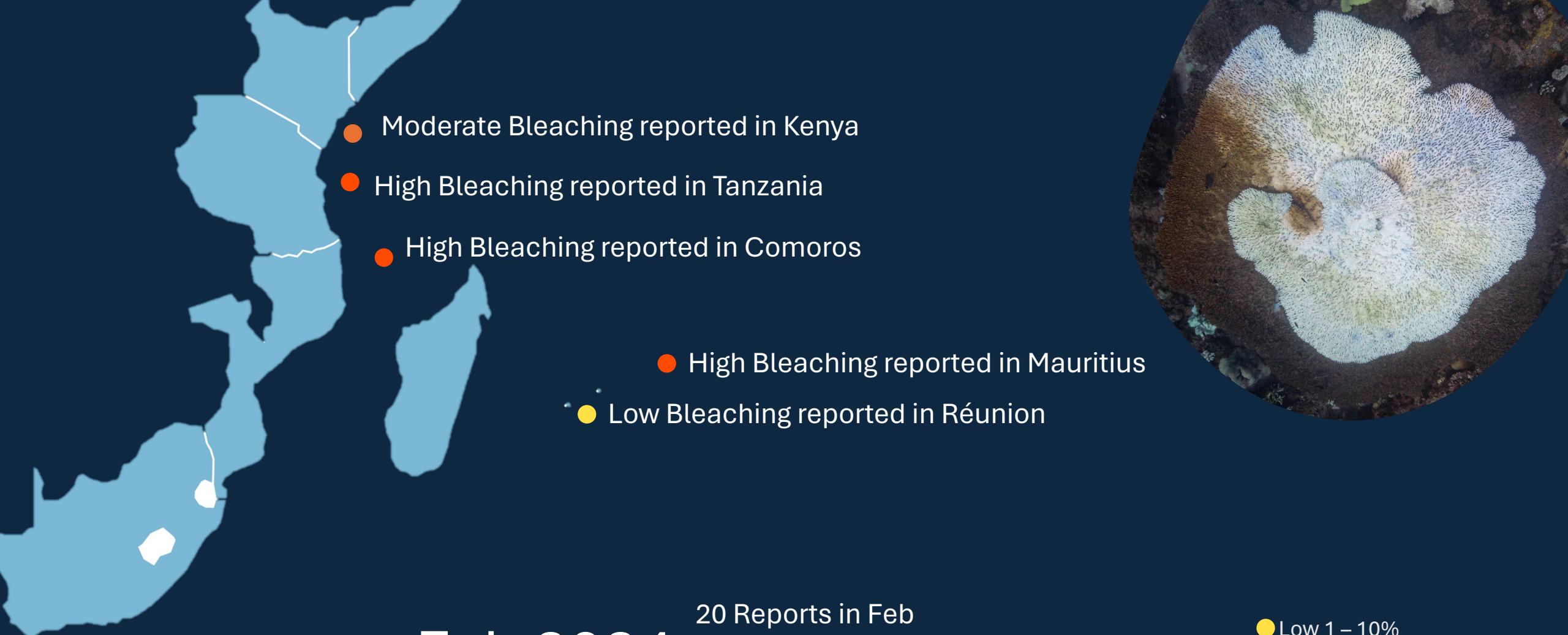
Jan 2024

1st Report on 6th Jan
7 Reports in Jan
7 Total Reports

- Low 1 – 10%
- Moderate 10 – 50%
- High 50 – 90%
- Extreme 90%<



Image: Dr Ewout Knoester, Kisite-Mpunguti, Kenya Jan-2024



Feb 2024

20 Reports in Feb

27 Total Reports

- Low 1 – 10%
- Moderate 10 – 50%
- High 50 – 90%
- Extreme 90%<





- Moderate Bleaching reported in Kenya
- High Bleaching reported in Tanzania
 - High Bleaching reported in Seychelles



- Low 1 – 10%
- Moderate 10 – 50%
- High 50 – 90%
- Extreme 90%<

53 Reports in Mar
80 Total Reports

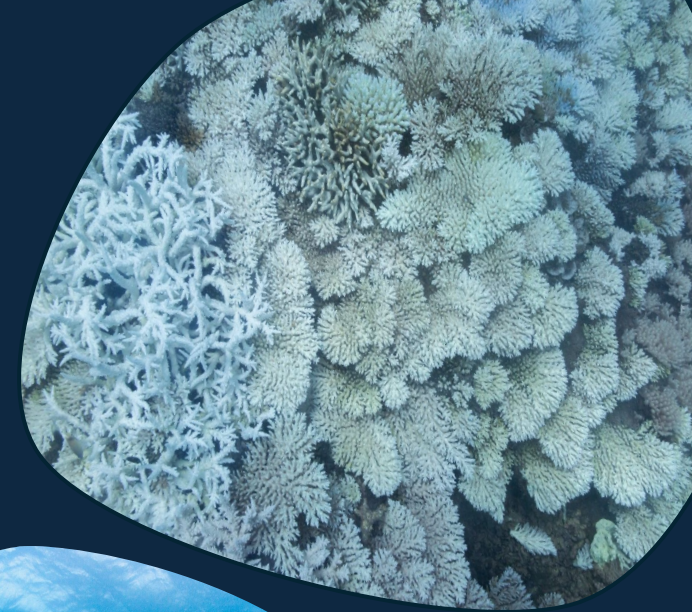
Mar 2024





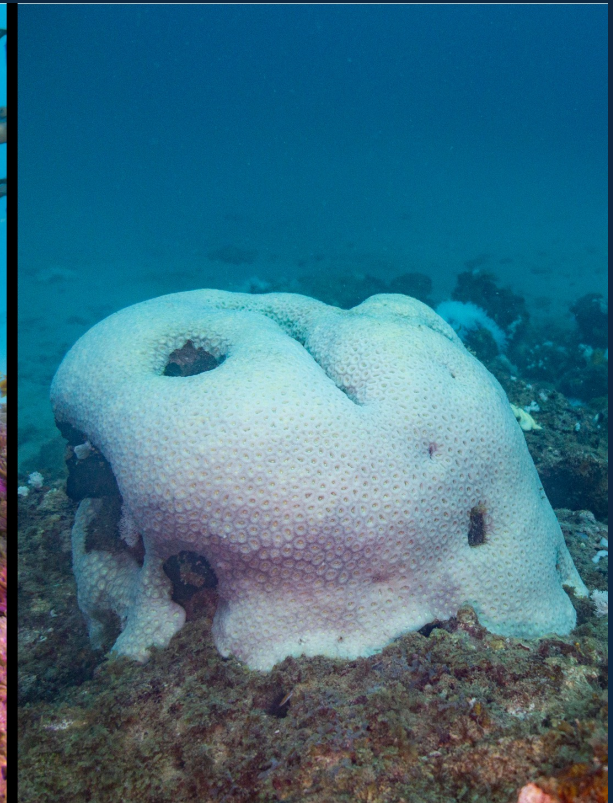
- Low 1 – 10%
- Moderate 10 – 50%
- High 50 – 90%
- Extreme 90%<

50 Reports in Apr
 130 Total Reports **Apr 2024**



Images: Dr Ewout Knoester, Kisite-Mpunguti, Kenya Apr-2024

Images: Dr Ewout Knoester , Shimoni and Kisite-Mpunguti, Kenya Jan/Apr-2024



Jan 2024

Apr 2024



Initial Insights from Kenya's South Coast

- 15-25% mortality
- High mortality of sensitive species (Acropora, Pocillopora)
- Loss of soft corals
- Increased predation
- Some resilient genera (Galaxea, Coscinarae)
- Mixed responses in species like Echninopora and Gonipora



May 2024



Looking Ahead



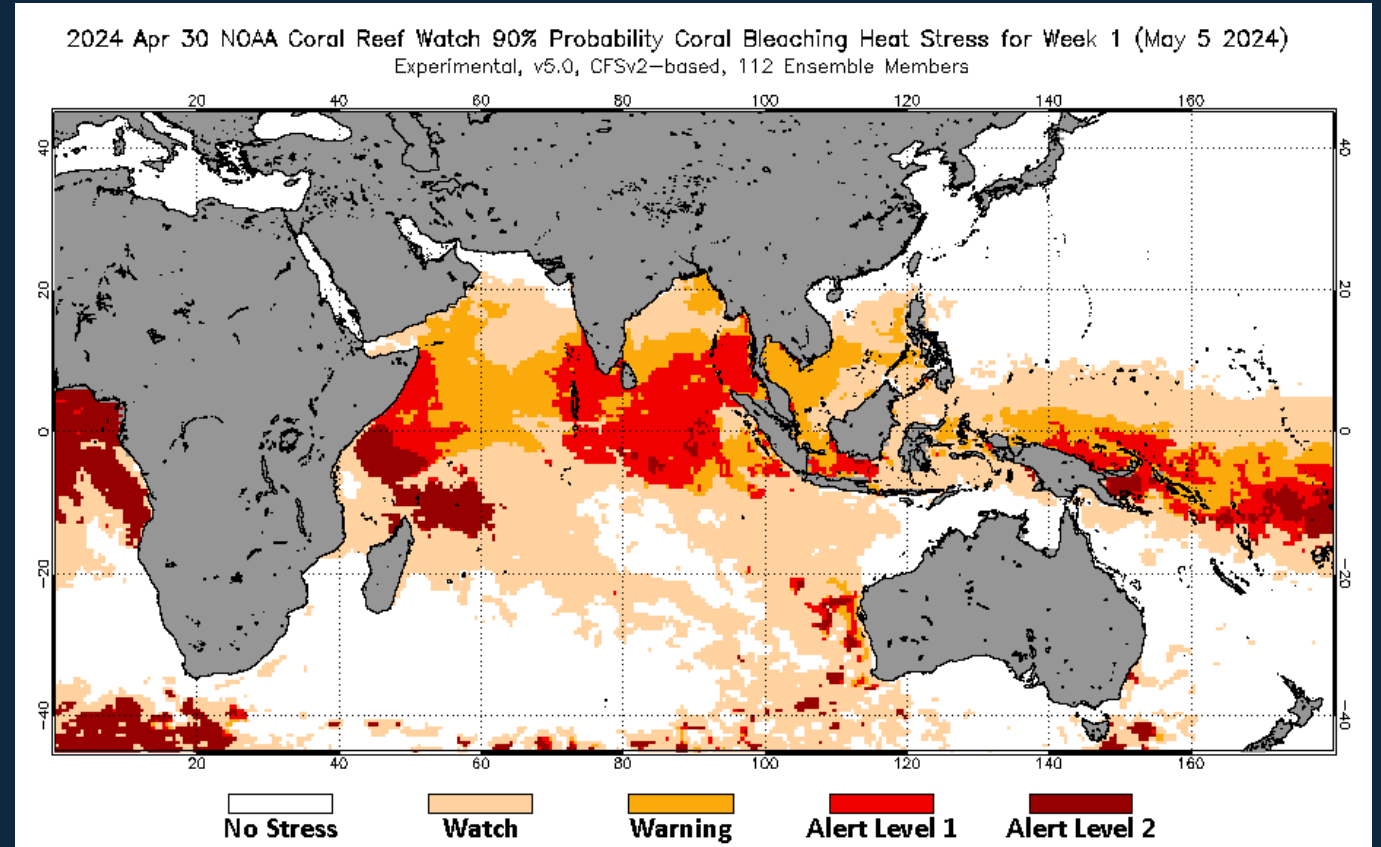
Ongoing monitoring



Continued reporting to
CORDIO and NOAA



Regional Bleaching Alerts



May 2024

July 2024

June 2024

Aug 2024

Lessons Learnt

Successes



Early warning from NOAA Coral Reef Watch



National coordinated and collaborative effort



Citizen science for bleaching observations

Challenges



Regional coordinated bleaching monitoring and reporting



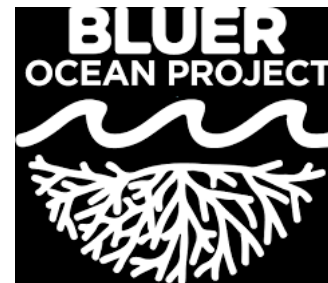
Sharing timely bleaching observations



Lack of dedicated funding for bleaching monitoring efforts



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des Comores



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