The Fourth Global Bleaching Event

The Western Indian Ocean and the Story so Far

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

**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, submit this form.

**Method:**

- Conduct a 5-minute timed swim and observe the reef.
- Examine all visible hard corals, noting their growth shape (as below).
- Estimate the percentage of coral cover bleached in the area.
Jan 2024

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

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

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

20 Reports in Feb
27 Total Reports

- Moderate Bleaching reported in Kenya
- High Bleaching reported in Tanzania
- High Bleaching reported in Comoros
- High Bleaching reported in Mauritius
- Low Bleaching reported in Réunion

Images: Dr Ewout Knoester, Kisite-Mpunguti, Kenya Apr-2024
Moderate Bleaching reported in Kenya
High Bleaching reported in Tanzania
High Bleaching reported in Seychelles

Mar 2024

53 Reports in Mar
80 Total Reports

Images: Dr Melita Samoilys, Kisite-Mpunguti, Kenya 27-Mar-2024
Extreme Bleaching reported in Kenya
High Bleaching reported in Tanzania
High Bleaching reported in Seychelles
High Bleaching reported in Comoros

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
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

Images: Dr Ewout Knoester, Kisite-Mpunguti, Kenya Mar/Apr-2024
Looking Ahead

- Ongoing monitoring
- Continued reporting to CORDIO and NOAA
- Regional Bleaching Alerts

- May 2024
- June 2024
- July 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