The Current Status of Coral Bleaching in the Brazil Region

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On behalf of: Department of Ocean and Coastal Management
Secretariat for Climate Change
Ministry of Environment and Climate Change
Governance of the coastal and marine zone strengthened and integrated to climate change agenda

Conservation of coastal and marine ecosystems vulnerable to climate change implemented

Mitigated vectors of marine and coastal zone degradation

Antarctica monitored and protected in terms of mitigating the impacts of the presence of BR

Include the ocean and coastal zone in climate policy in an integral and permanent way.

Figure 11.6. Estimated average cover of live hard coral within each subregion comprising the Brazil region. The solid line represents the estimated mean and associated 80% (darker shade) and 95% (lighter shade) credible intervals, which represent levels of uncertainty. Grey areas represent periods during which no field data were available. The proportion of all coral reefs in the Brazil region within each subregion is indicated by the % of coral reefs.
BR – 2023- 2024 Actions


Severe Bleaching in Florida

37th ICRI Hawaii

Alert meeting with government (MMA, ICMBio, IBAMA, Navy)

COP28 - Brazil joins the Coral Reef Breakthrough

1st Meeting with monitoring teams to map out support needs for bleaching monitoring

Feedback to researchers on possibilities for supporting bleaching monitoring

Bleaching starts

Launch of call for projects - 30 million reais - BNDES

Bleaching Reports from Monitoring teams

Webinar ICRI NOAA

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Webinar ICRI NOAA
2024: the most severe event
Regional Virtual Station (NOAA)

DHW

Noronha ★ ✭ >90% <1%
Rocas Atoll ★ ✭ 1-10% <1%
Pirangi 50-90% 1-10%
Maracajau 50-90% 1-10%
Tamandaré ★ ✭ >90% 10-50%
Maragogi ★ ✭ >90% 50-90%
Sergipe 50-90% 50-90%
Boipeba 10-50% 1-10%
Corumbau 1-10% <1%
Abrolhos ★ ✭ 1-10% 0-50%

Five long term monitoring sites ★ ILTER Sites/CNPQ (★ 20 yr)
✪ Reef Check sites
INCT, NGOs, Universities

Regional Virtual Station (NOAA) | DHW
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Fernando de Noronha | 18.5
Maracajau | 22.1
Costa dos Corais | 20.9
Todos os Santos | 20.1
Abrolhos | 14.6
Trindade and martim vaz | 11.0
Coral Vivo Bleaching Monitoring network - 2021

20 PONTOS MONITORADOS
17 COM BRANQUEAMENTO
10 EM SITUAÇÃO GRAVE
Costa dos Corais - Brazil
Twenty three species of stony corals and five species of hydrocorals are registered along the Brazilian coast; six species are endemic; at least three are red listed as under threat (IUCN)
Coral bleaching reaches new depths in the South Atlantic

Seamounts of the Northern Brazilian Chain Expedition
UFPE - CEPENE/ICMBio - BRCOS - WWF Brasil
April 11-26, 2024

Underwater video mapping using the Docamper towed video system
36 film of video transects on the seamountic top of 7 seamounts, over 200 hours of underwater video recordings
500 km of bathymetric survey on top and flanks of the seamounts

Branqueamento de corais é registrado a 60 metros de profundidade
Fenômeno foi observado pela primeira vez no Atlântico Sul
The Northeast Brazilian region has a population of 18 million people living on the coast corresponding to 47% of all coastal Brazil population.

Coral reefs have enormous importance to coastal communities through coastal protection, food security, tourism, well being and culture.

The 2024 event was the most extreme to record, affecting severely all but the southernmost region (Abrolhos) that however was affected during previous events.

The western South Atlantic is not a climate refugia and Brazilian coral reefs are not tolerant to intense heat stress, being at severe risk in presente conditions and trends.

Reduction of carbon emissions through reduction of fossil fuel consumption and deforestation as well as increasing conservation and promoting restoration of local conditions is essential to prevent extreme losses.
(i) Integrate the research of the Brazilian Research Network on Global Climate Change (Rede Clima) with other national and international networks;

(ii) Provide support for strategies and initiatives of the Ministry of Science, Technology, and Innovation related to the goals outlined in the SDGs;

(iii) Identify opportunities for climate change adaptation actions, for the economic valorization of renewable energy potential and Brazilian biodiversity as a central element of the bioeconomy.