



Bleaching, change and hope

Background reading for teachers

This reading gives you the background for each slide, with sources you can check.

Bleaching events

The fourth global bleaching event, from early 2023 to mid-2025, exposed 84% of the world's reef area to bleaching-level heat stress, compared with 21% in 1998, 37% in 2010 and 68% in 2014 to 2017. NOAA scientists now describe an era of near-annual bleaching, and note that not all reefs bleached even under high temperatures.^{1, 2}

Projections

The IPCC projects that coral reefs will decline by a further 70 to 90% at 1.5°C of global warming, with larger losses (over 99%) at 2°C.³

Local action

Reducing local stressors such as overfishing, sedimentation and nutrient pollution is widely recommended to improve reef resilience and recovery. It cannot replace emissions cuts, and the debate is designed to bring out exactly that balance. The Apo Island reserve, covered in the Fish, fishers and no-take zones module, is a local example of long-term protection.

Sources

1. NOAA NESDIS (2026). World's fourth mass coral bleaching event likely ended in 2025. [nesdis.noaa.gov](https://www.nesdis.noaa.gov)
2. GCRMN (2026). The most intense global coral bleaching event on record has likely ended. [gcrmn.net](https://www.gcrmn.net)
3. IPCC (2018). Special Report on Global Warming of 1.5°C, Summary for Policymakers. [ipcc.ch/sr15](https://www.ipcc.ch/sr15)

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