



IF SEA TEMPERATURE INCREASES, CORALS ARE IN BIG TROUBLE.

Here's what happens step by step.



1 CORAL BLEACHING



Corals have tiny algae called zooxanthellae living inside them. The algae give corals their color and 90% of their food through photosynthesis.

When water gets just 1–2°C above normal for a few weeks, the coral gets stressed and kicks the algae out.

Result: The coral turns completely white. That's "bleaching".

Bleached corals aren't dead yet. But they're starving.

2 DEATH + DISEASE



If hot temperatures last too long, the coral can't recover and dies.

Dead coral also becomes way more vulnerable to disease and algae overgrowth.

Once algae take over, it's really hard for new coral to grow back.

3 RIPPLE EFFECTS ON THE WHOLE REEF

Coral reefs support ~25% of all marine life even though they cover <1% of the ocean floor.



When corals die:

Fish lose homes → fish populations crash.

Coastal protection drops → reefs absorb wave energy. Without them, erosion and flooding get worse for Pacific islands.

Food + tourism collapse → communities that depend on reefs lose income.

4 SLOWER GROWTH + WEAKER SKELETONS

Normal conditions



Warmer water + acidification



Warmer water + ocean acidification makes it harder for corals to build their calcium carbonate skeletons.

So even surviving corals grow slower and are more brittle.

! THE THRESHOLD

Most tropical corals are adapted to a pretty narrow range:

23–29°C
/ 73–84°F

Even short heatwaves above that can trigger mass bleaching events.

That's why the 2014–2017 and 2023–2024 global bleaching events killed so much reef in the Pacific.

✓ THE GOOD NEWS

If temperatures drop back down within a few weeks, some corals can recover and re-absorb algae.



That's why cutting emissions and protecting local reefs from pollution and fishing helps buy them time.

THE RIPPLE EFFECTS REACH FAR BEYOND THE REEF.



Healthy reefs support healthy communities.



Reefs provide food security.



Reefs support jobs and local economies.



Reefs protect our islands, our culture and our future.



OUR ACTION TODAY
PROTECTS OUR REEFS TOMORROW.



Cut emissions to cool our planet.



Reduce pollution from land and sea.



Sustainable fishing keeps reefs strong.



Support local communities and traditional stewardship.