

# Stress indicator of coral and zooxanthellae

What is this chart for?

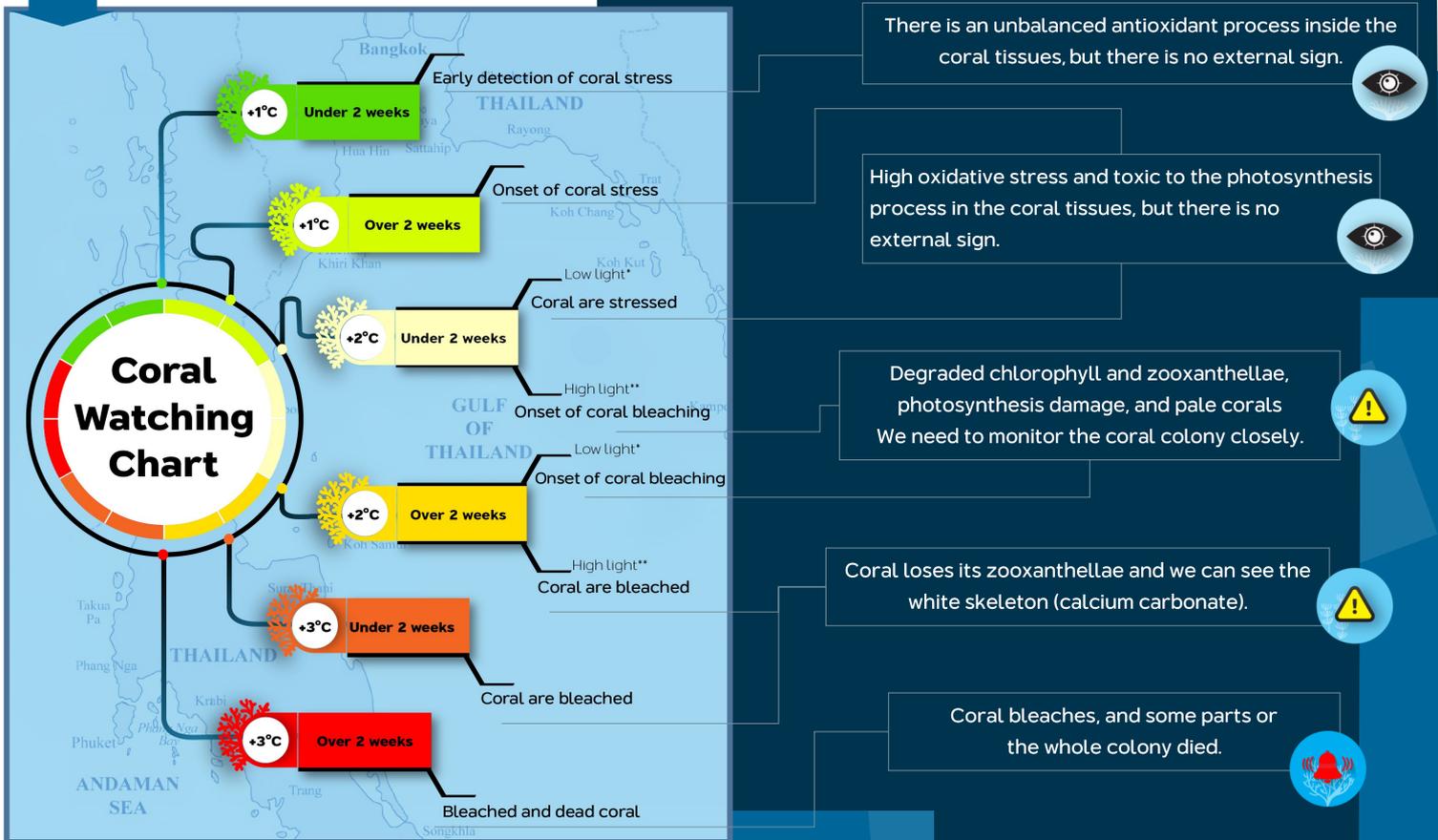
Coral stress assessment and coral bleaching severity

Who can use it?

Local staffs/ volunteers/ coral reef network/ general public

## How to assess

- Measure the seawater temperature in coral reef and investigate the increasing value from the average normal temperature
- Assess base on criterion of **increasing temperature** (+1, +2 or +3 °C) together with **continual increasing period**
- In case of temperature increases 2 °C from the normal temperature; **light data** should be considered with the assessment
- Measure the underwater light intensity or transparency in order to categorize coral reef under high light (clear water) or low light (turbid water)



\* Underwater light intensity < 300 μmol photons m<sup>-2</sup> s<sup>-1</sup> / 16,000 Lux or water clarity < 5 m  
 \*\* Underwater light intensity > 300 μmol photons m<sup>-2</sup> s<sup>-1</sup> / 16,000 Lux or water clarity > 5 m

## Recommendation

Closely monitor the corals and measure seawater temperature and light intensity in coral reefs

- Reduce human activities, e.g., snorkeling, dumping of wastes or trash, anchoring, fishing
- Build shade to protect corals from high light in some reef areas, e.g., the areas with high biodiversity of source colonies, the areas with heat-tolerant corals

- Temporarily close areas to protect coral reefs from disturbances
- Reduce the activities that pollute water, e.g., discharge of pollutants and nutrient runoff, drilling, coastal development
- Preserve the key/critical ecosystems, especially the herbivorous fish communities, to support coral recovery
- Monitor and report the status of coral bleaching