Indian Ocean Marine Heat Wave Advisory Bulletin

Indian National Centre for Ocean Information Services (INCOIS)
Ministry of Earth Science (MoES), Govt. of India
URL:https://incois.gov.in/oceanservices/mhw/index.jsp

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Marine Heat Wave Status over the Indian Ocean.

Regions	Spread of Marine Heat Wave (% of Area)			Remarks
	Watch	Alert	Warning	
Arabian Sea	15%	08%	03%	• **Arabian Sea:** Predominantly **Watch conditions (15%)** with widespread **Alert conditions (8%)** and localized **Warning conditions (3%)** are observed along the coast of Gujarat, Maharashtra, Goa, Karnataka, and Kerala – **Maybe Mild Impact:** coral reef ecosystem, marine productivity, coastal ecosystems.
Bay of Bengal	09%	--	--	• **Bay of Bengal:** Predominantly **Watch conditions (9%)** are observed along the coast of West Bengal, Bangladesh, Myanmar, and the Andaman & Nicobar Islands.
Southern Indian Ocean	13%	04%	01%	• **Southern Indian Ocean:** Widespread **Watch conditions (13%)** with localized **Alert (4%)** and isolated **Warning (1%)** observed south of **Madagascar** and across the subtropical southern Indian Ocean - **Maybe Mild Impact:** open-ocean productivity.
South China Sea	10%	01%	--	• **South China Sea:** Predominantly **Watch conditions (10%)** with localized **Alert (1%)** are observed in the central and northern South China Sea.
Red Sea & Gulf of Aden	01%	--	--	• **Red Sea & Gulf of Aden:** Isolated **Watch conditions (1%)** are observed in isolated regions of the Red Sea and Gulf of Aden region.
Persian Gulf	03%	01%	--	• **Persian Gulf:** Moderate **Watch conditions (3%)** with localized **Alert conditions (1%)** are observed across the Persian Gulf.

For a brief report on the current Marine Heat Wave bulletin, please visit:https://incois.gov.in/oceanservices/mhw/index.jsp
For clarifications, please contact: webmaster@incois.gov.in

Note on MHW categories level:

- **"Watch":** The anomalous temperature range from 0 to 0.5 degrees above the 90th percentile of daily climatology
- **"Alert":** The anomalous temperature range from 0.5 to 1 degree above the 90th percentile of daily climatology
- **"Warning":** The anomalous temperature range of more than 1 degree above the 90th percentile of daily climatology

Date: 02 JUL 2026

Brief Report: Indian Marine Heat Wave Alert Bulletin

Background: The Indian National Centre for Ocean Information Services (INCOIS) is a research organization under the Ministry of Earth Science (MoES), Government of India, which has carried out research and development on Marine Heat Wave based on the prolonged anomalous temperature above the 90^{th} percentiles of daily climatology calculated using OISST data over the Indian Ocean, including the South China Sea. The intensity of MHW and its different categories of products, such as 'Watch' (SST anomaly from 0 to 10), 'Alert' (1-2), and ' Warning' (> 2 °C), were generated daily and hosted on a web-GIS interface (URL: https://incois.gov.in/oceanservices/mhw/index.jsp). The study area of this service is dividedinto six ocean basins (Arabian Sea, Bay of Bengal, Persian Gulf, Red Sea, southern Indian Ocean and South China Sea) and fourteen sectors off the Indian states (Gujarat, Maharashtra, Goa, Karnataka, Kerala, Lakshadweep, South Tamil Nadu, North Tamil Nadu, South Andhra Pradesh, North Andhra Pradesh, Odisha, West Bengal, Andaman and Nicobar Islands) for sectoral analysis. INCOIS also assessed the intensity of MHW and its impact on marine ecosystems, including coral reefs, seagrasses, seaweeds, and fisheries, with adverse effects on biodiversity and species shifts due to future climate change.

Based on daily MHW advisories of the past seven days, a weekly summary report was generated and presented in the form of a bulletin comprising a summary of the MHW status in each ocean basin. This will provide an overview of the MHW status across different ocean basins, helping stakeholders such as ecologists, fishermen, coastal managers, tourists, and ocean researchers.

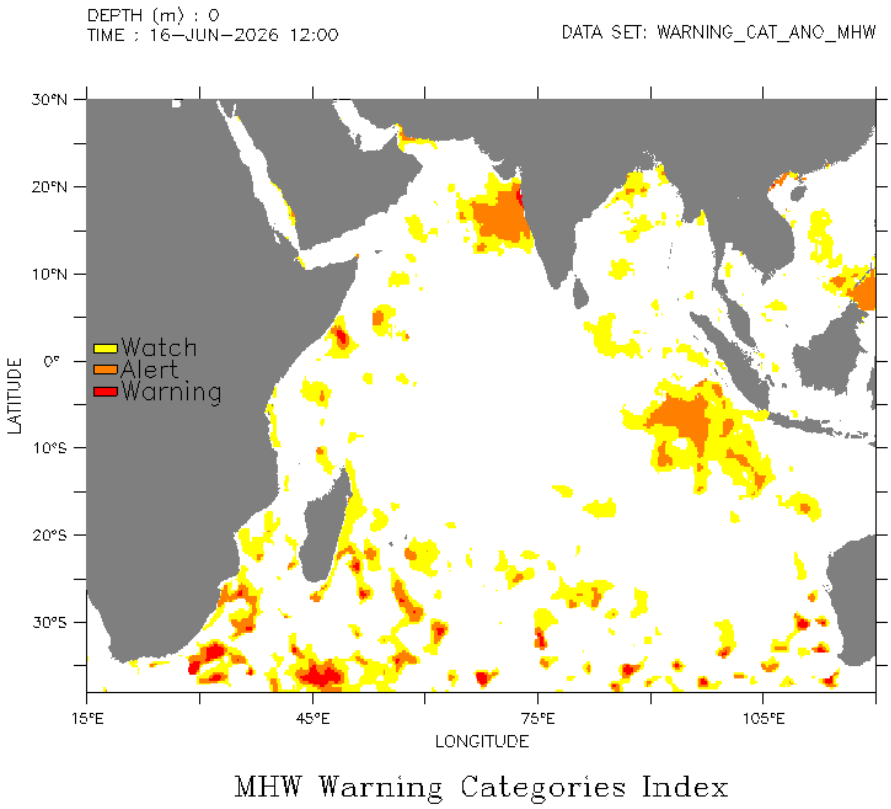

Fig: Spatial distribution of Marine Heat Wave categories over the Indian Ocean