



State of Global Climate Report 2024

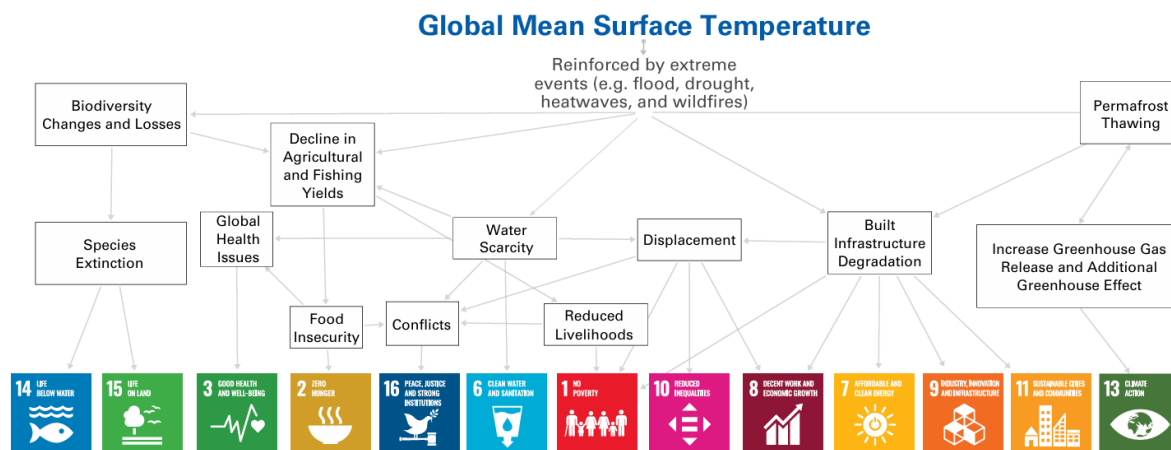
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Why in News?

According to the [State of Global Climate report 2024](#) of the [World Meteorological Organization \(WMO\)](#), global warming is nearing the **1.5°C Paris Agreement** threshold.

What are the Key Findings of the Global Climate Report?

- **Current Warming Levels:** Global warming stands at **1.34-1.41°C** above pre-industrial levels, with 19 of the last 20 months surpassing the **1.5°C threshold**.
 - The world could surpass the **1.5°C threshold by September 2029**.
- **Extreme Weather Events:** In 2024, record **displacements from cyclones, floods, and droughts** worsened food crises, while [heat waves](#) hit East Asia, Southeast Europe, the Mediterranean, West Asia, and the southwestern US.
- **Carbon Dioxide Levels:** In 2023, **atmospheric CO₂** reached **151%** of pre-industrial levels, the highest in **800,000 years**.
- **Cryosphere Decline:** [Arctic sea ice](#) hit record lows for **18 consecutive years**, while [Antarctic sea ice](#) saw its **2nd-lowest** extent in 2024.
- **Irreversible Impacts:**
 - **Ocean Warming:** 2024 saw the highest [ocean heat content](#) in **65 years**, with warming rates doubling since 1960.
 - **Sea Level Rise:** Global mean sea level reached a record high, with rates **doubling** from **2.1 mm/year (1993-2002)** to **4.7 mm/year (2015-2024)**.
 - **Glacier Melt:** The period **2022-2024** recorded the **most negative glacier mass balance**, with significant losses in **Norway, Sweden, Svalbard, and the tropical Andes**.
 - **Ocean Acidification:** pH levels are declining rapidly, particularly in the **Indian Ocean, Southern Ocean, and equatorial Pacific**, with irreversible effects over centuries.



Associated risks of increased global mean surface temperature and the Sustainable Development Goals

What is the World Meteorological Organization (WMO)?

Click Here to Read: [World Meteorological Organization \(WMO\)](#)

What is the Paris Agreement?

Click Here to Read: [Paris Agreement](#)

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