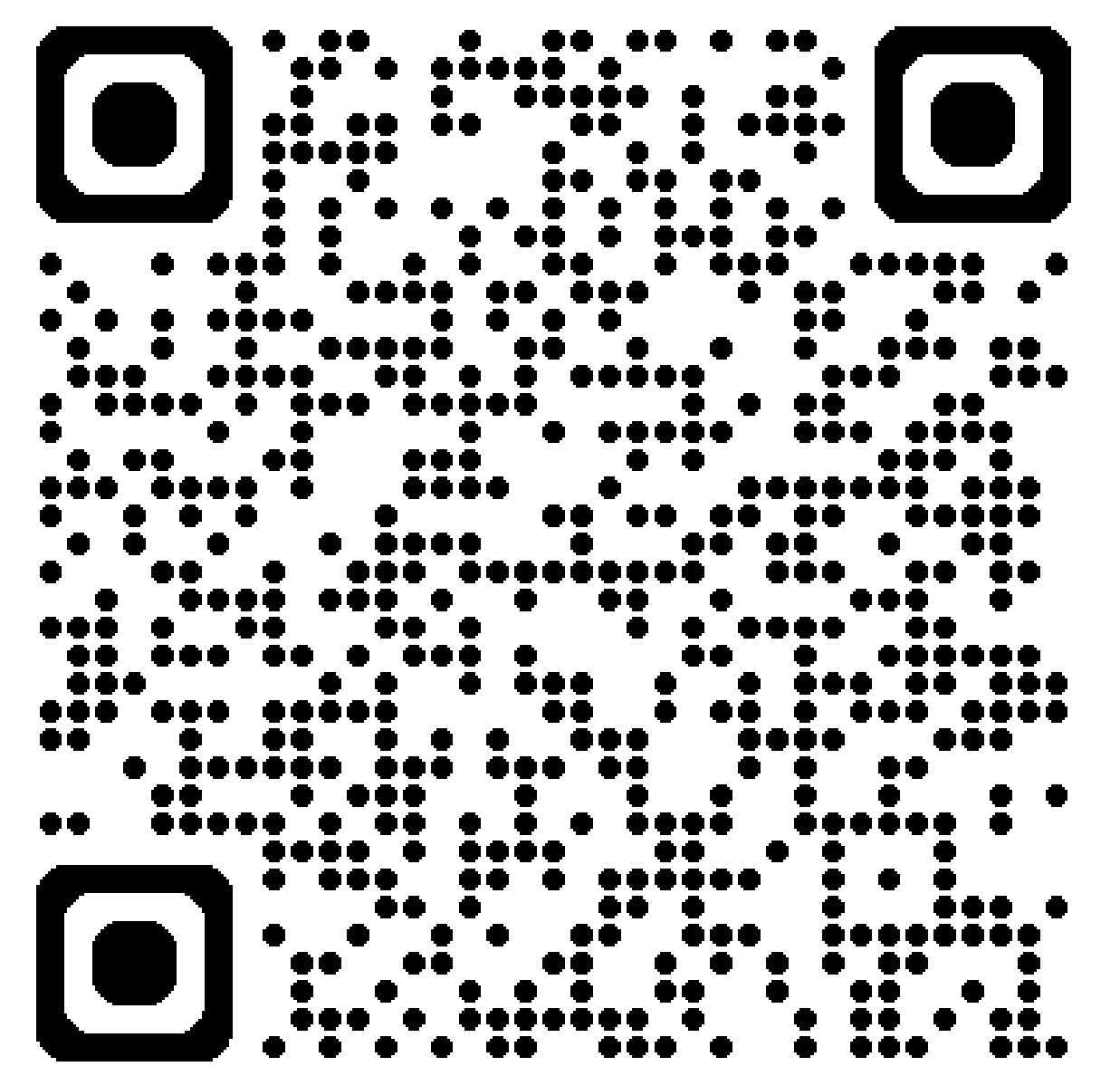




WORLD  
METEOROLOGICAL  
ORGANIZATION

# STATE OF THE GLOBAL CLIMATE 2024

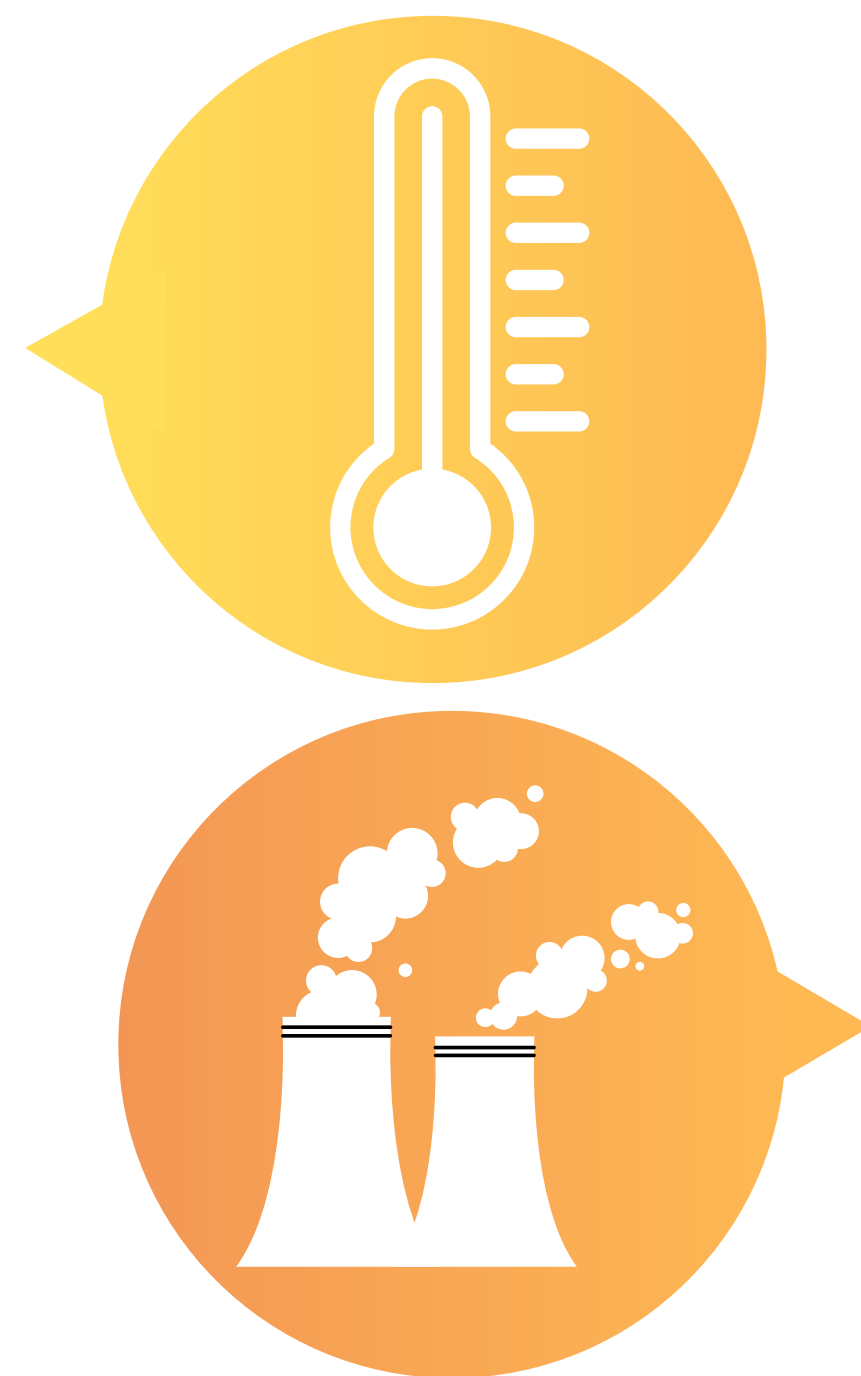
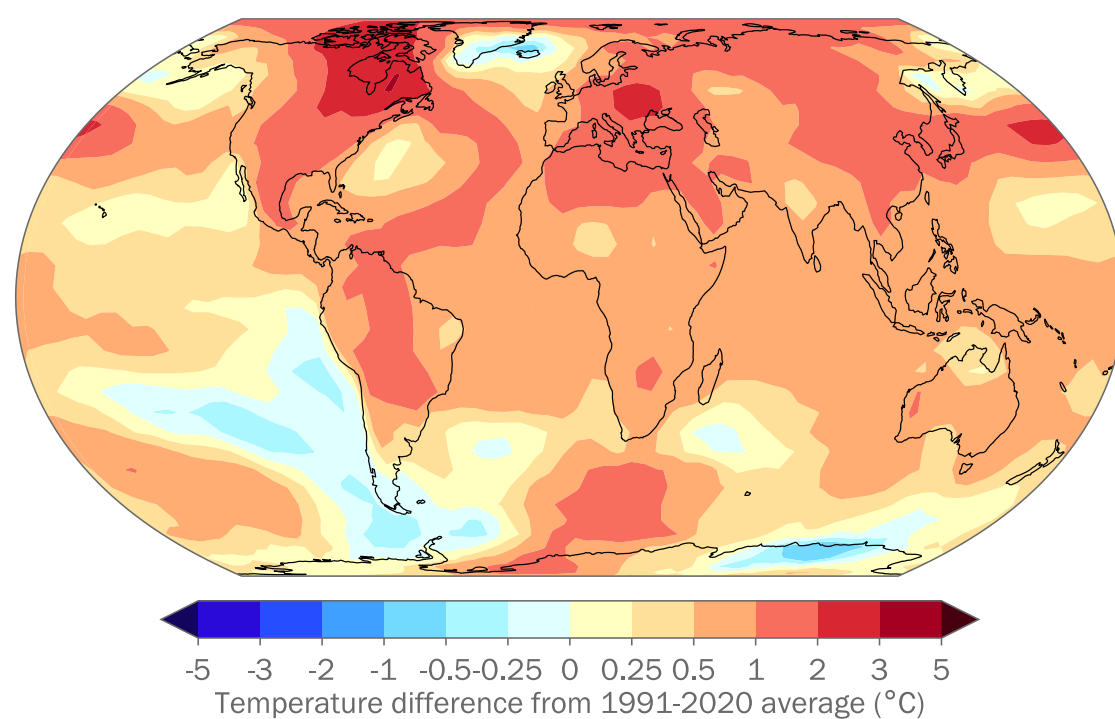
Interactive and PDF report



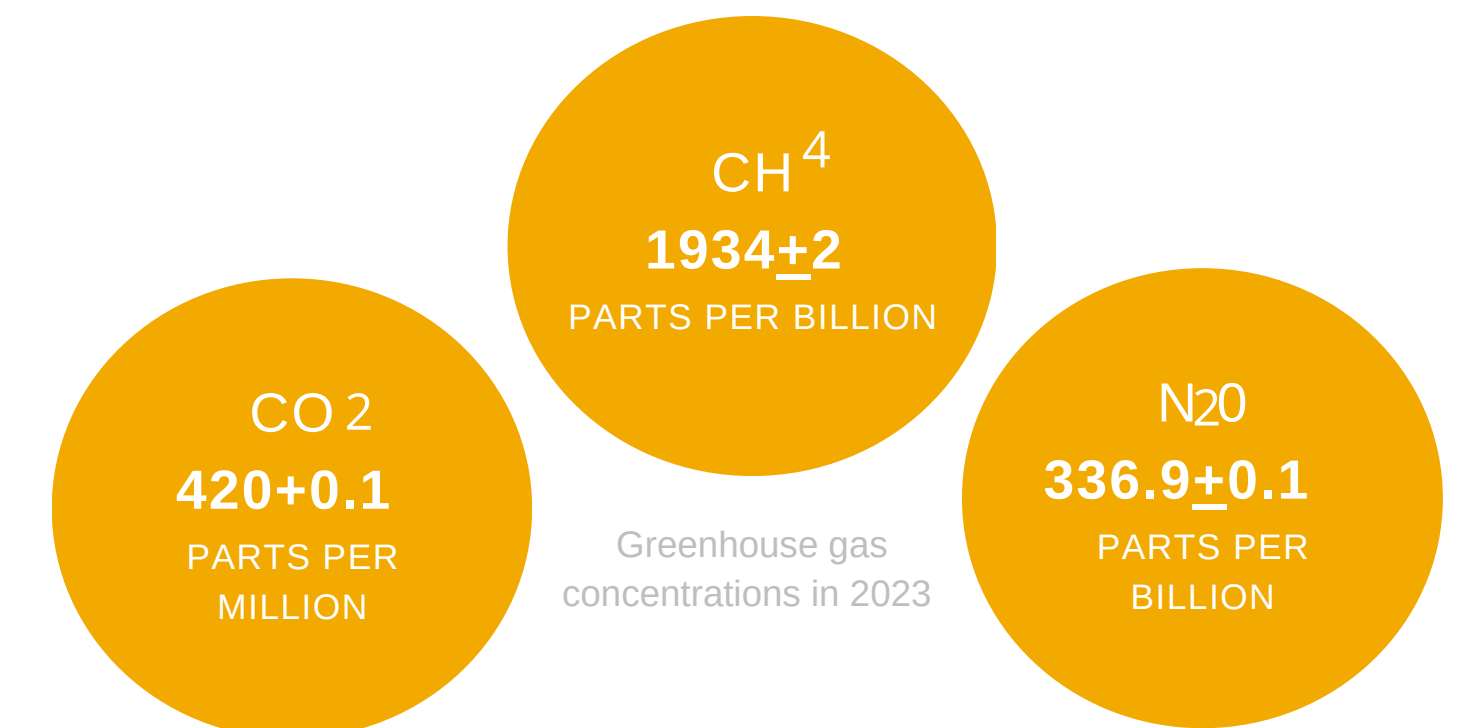
It was the warmest year  
on record

**$1.55 \pm 0.13$  °C**

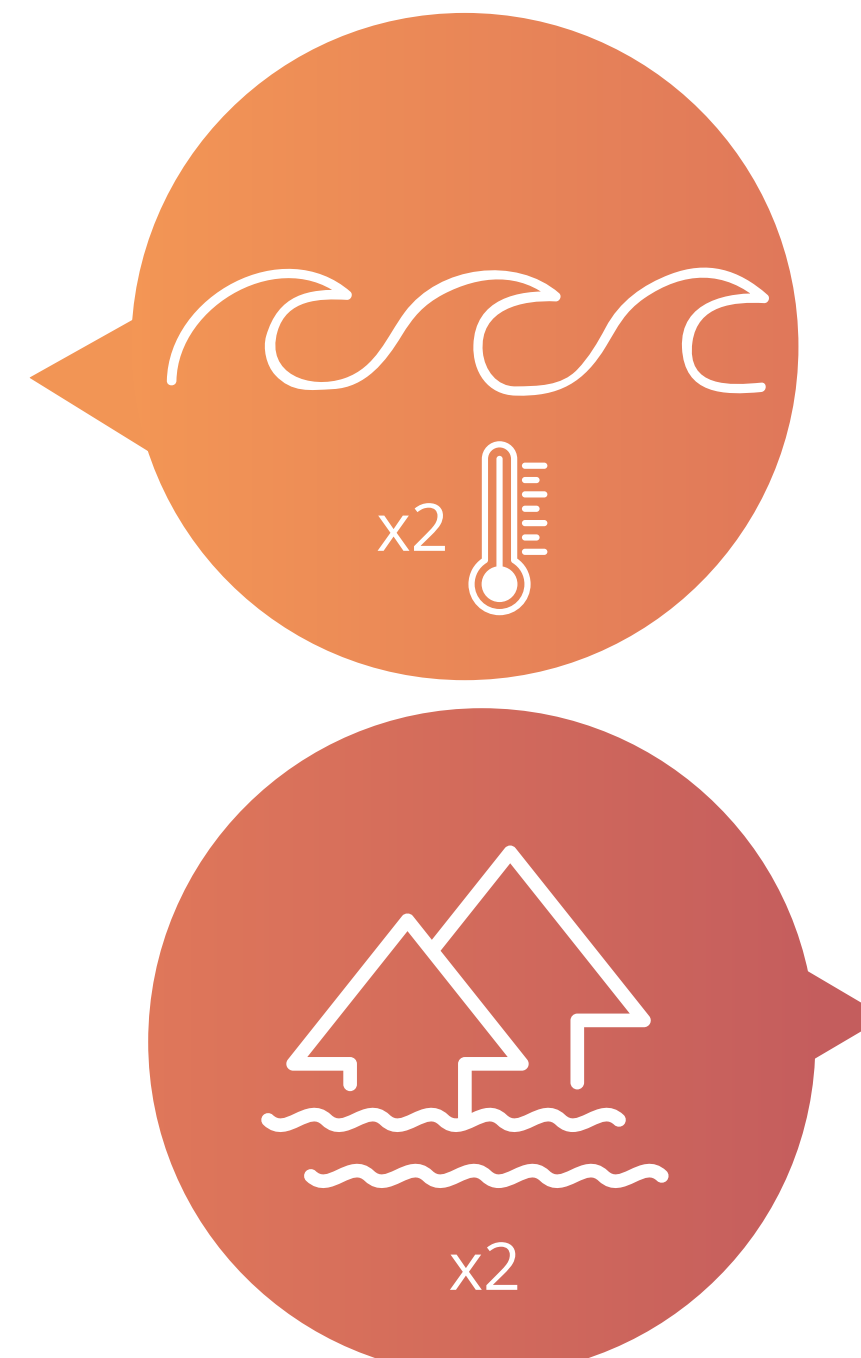
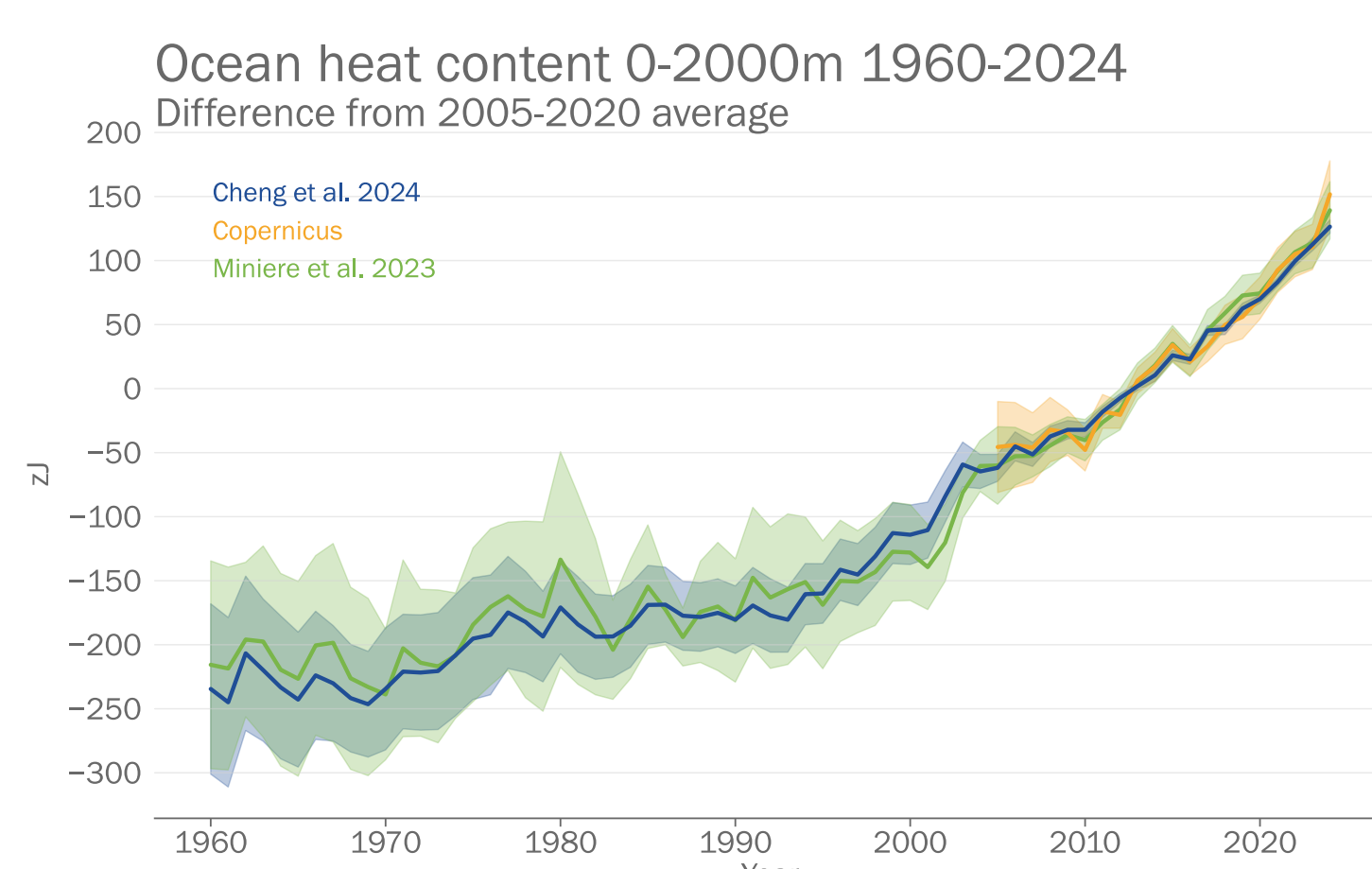
above the 1850-1900  
average.



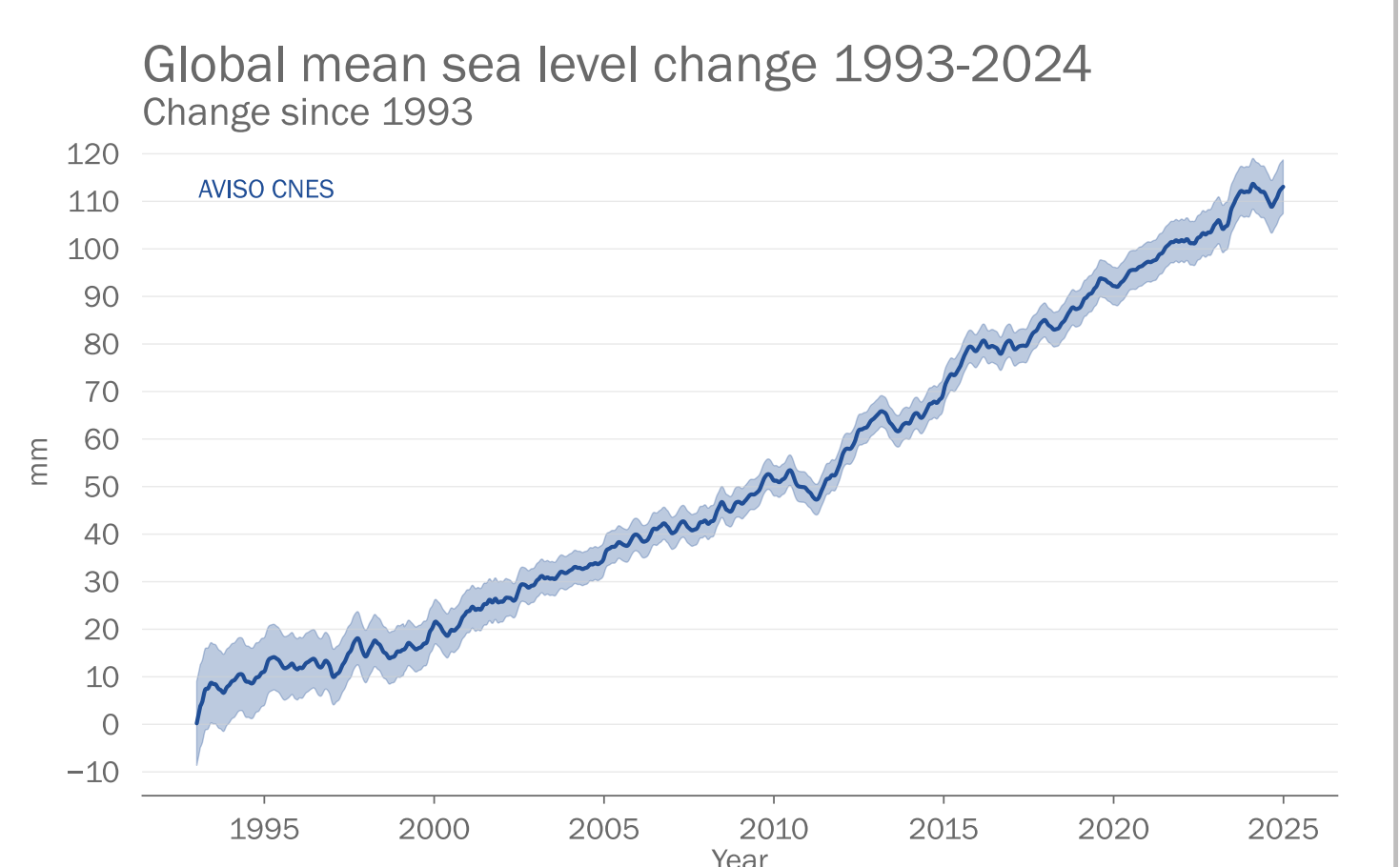
In 2023, the atmospheric  
concentration of carbon  
dioxide, methane and  
nitrous oxide, **reached  
the highest levels in  
the last 800 000 years.**



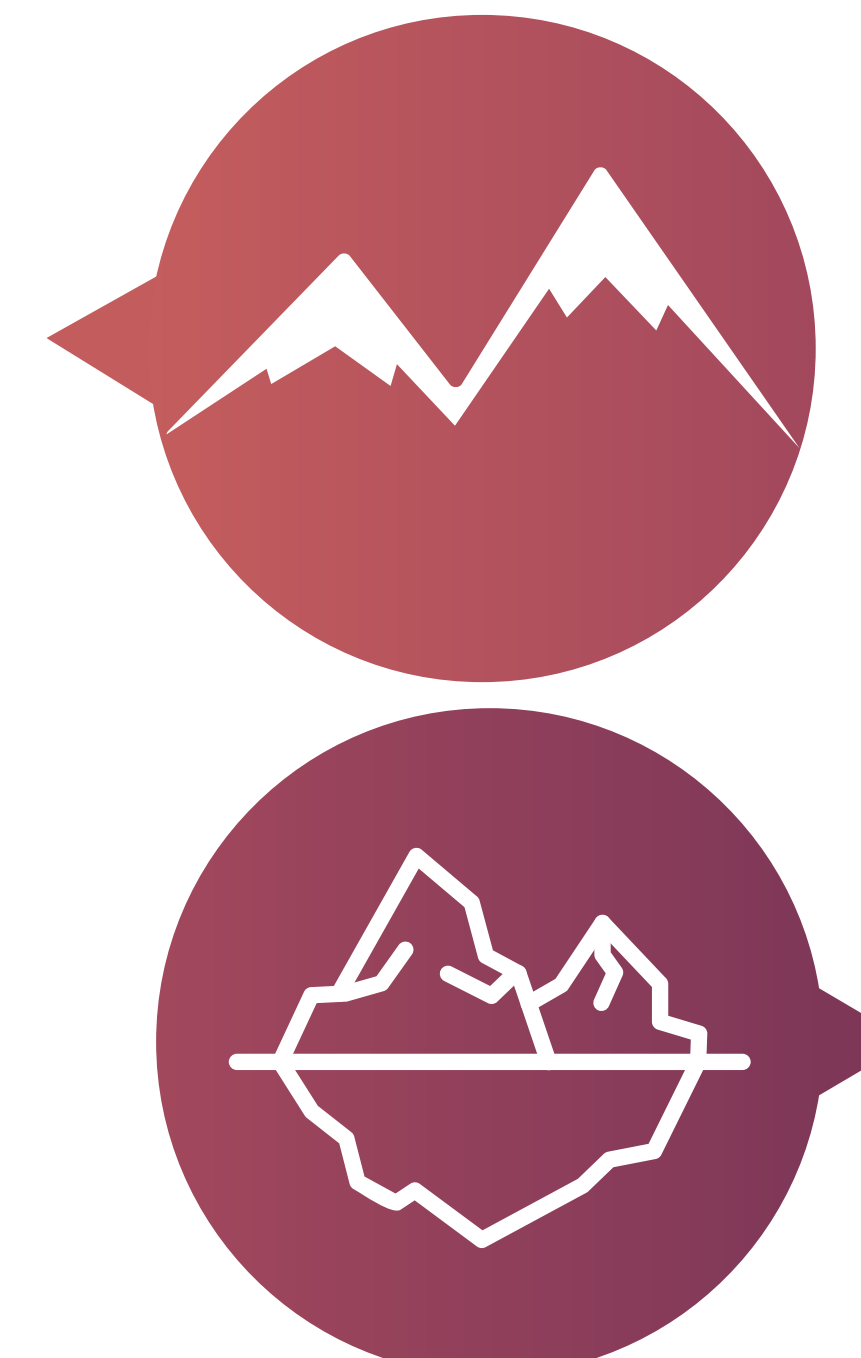
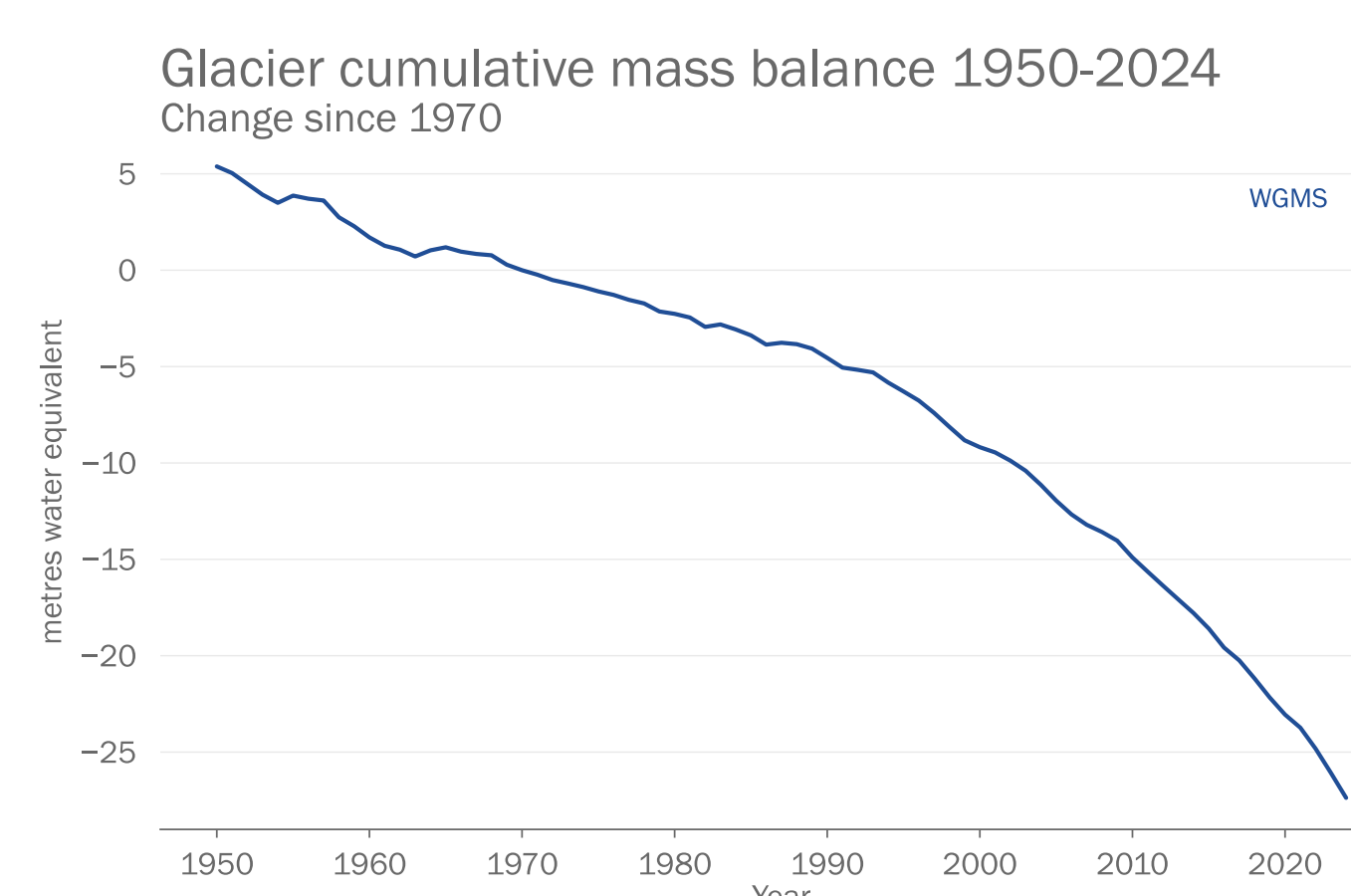
In 2024, **ocean heat  
content reached the  
highest level in the  
65-year observational  
record.** The rate of  
warming from 2005–  
2024 is more than  
twice that observed  
from 1960–2005.



**In 2024, global mean  
sea level reached a  
record high** in the  
satellite record. From  
2015-2024, sea level rose  
at an annual rate of  
4.7mm, compared to  
2.1mm from 1993-2002.

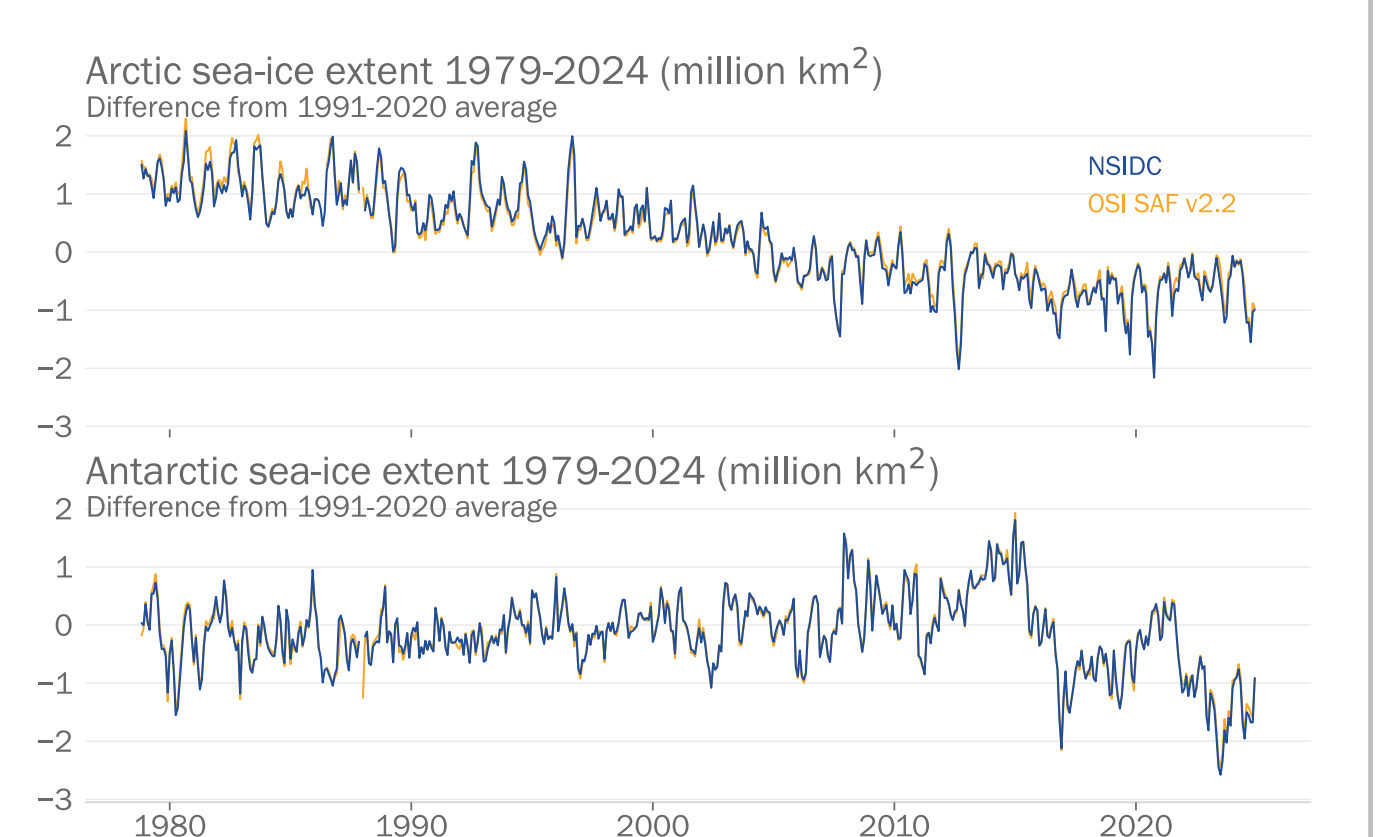


**Unprecedented glacial  
loss.** 2021-2024 was the  
most negative three-  
year glacier mass  
balance on record.  
Exceptional losses were  
experienced in Norway,  
Sweden, Svalbard and  
the tropical Andes.

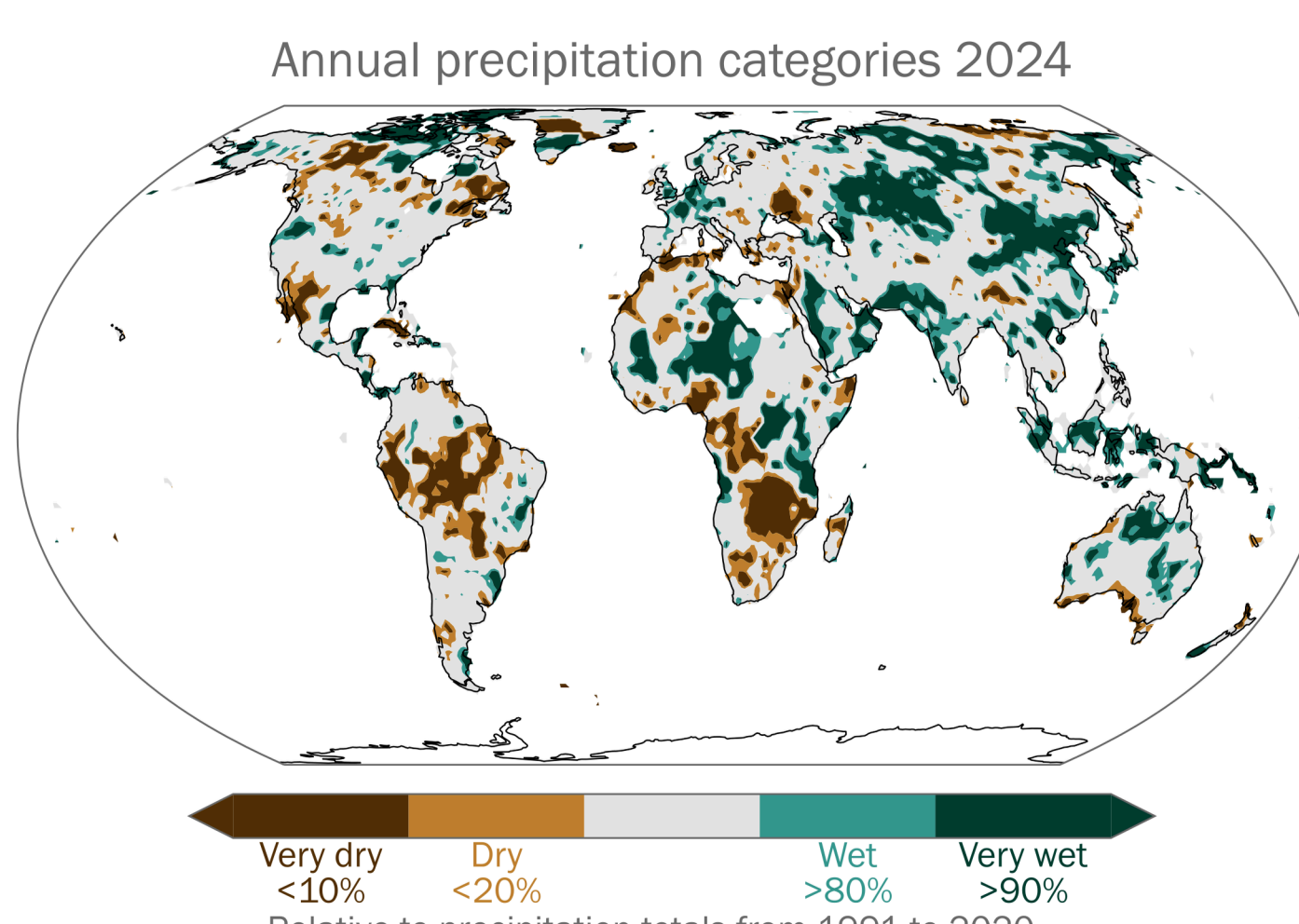


**Arctic & Antarctic sea  
ice extent were both  
below average.**

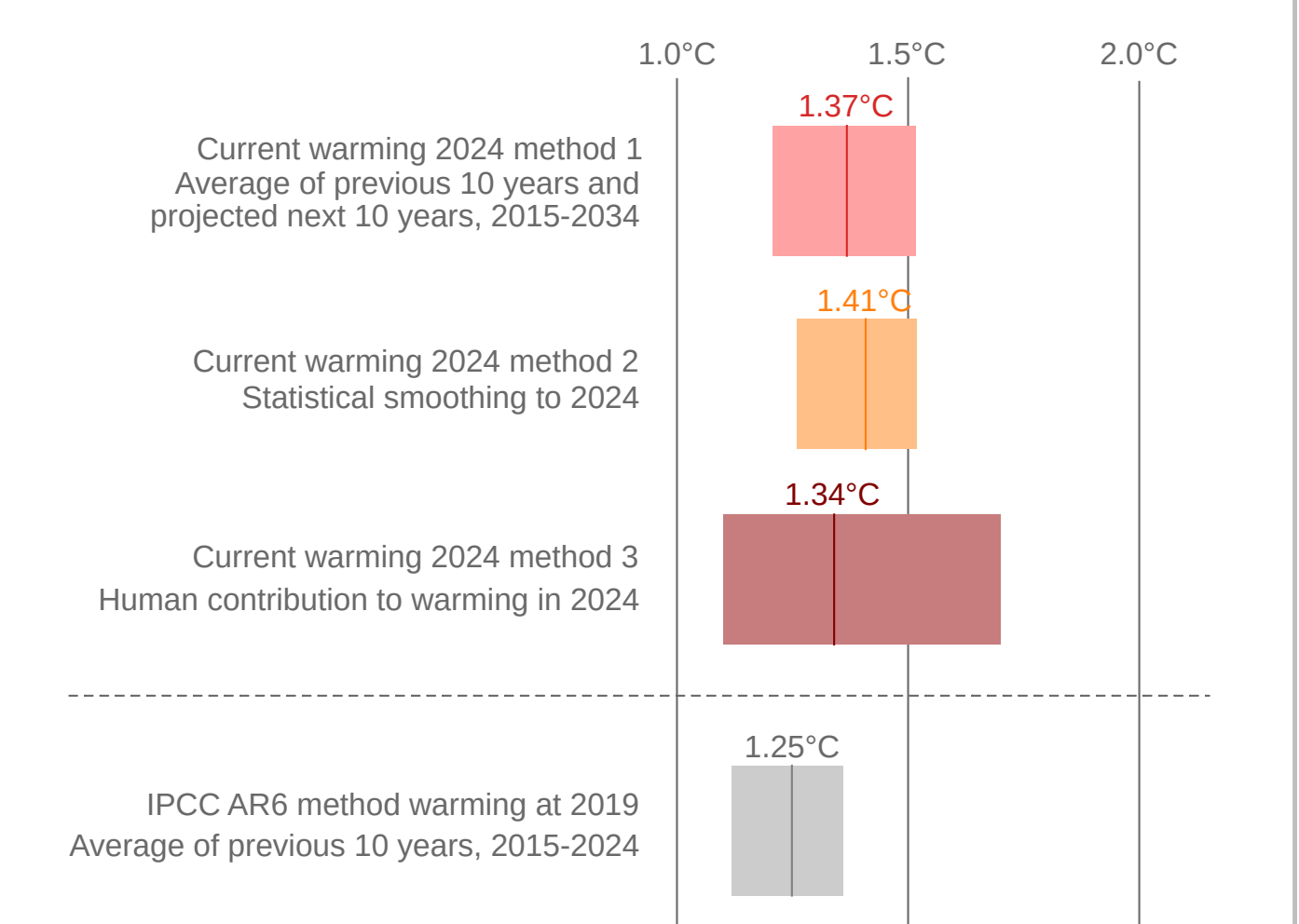
The annual minimum  
and maximum of  
Antarctic sea-ice extent  
were each the second  
lowest in the observed  
record.



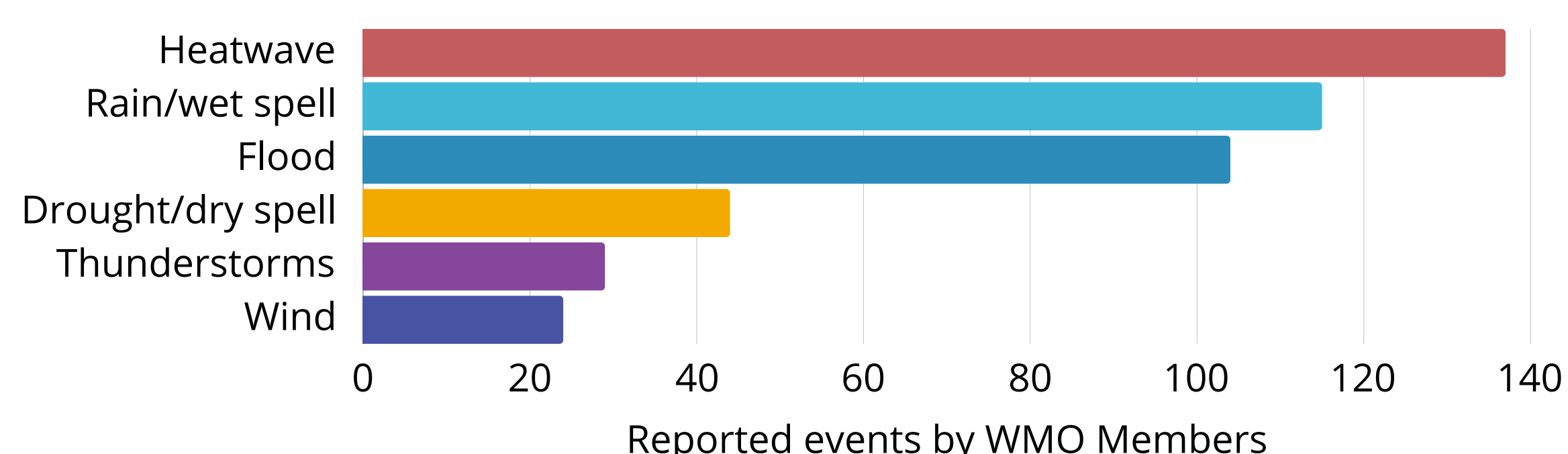
**2024 brought large  
regional variations  
in precipitation:** with  
some regions having  
an abnormally wet  
year and others  
abnormally dry.



**One year above 1.5°C  
does not mean the  
Paris Agreement has  
not been met.** Best  
estimates of long-term  
global warming remain  
below 1.5°C.



Diverse **extreme events** had **widespread impacts** in 2024



**103**  
WMO Members  
reported

**>824k**  
displacements

**617**  
Total reported  
events

**1.1m**  
injuries

**152**  
“unprecedented”  
events

**1.7k**  
deaths