































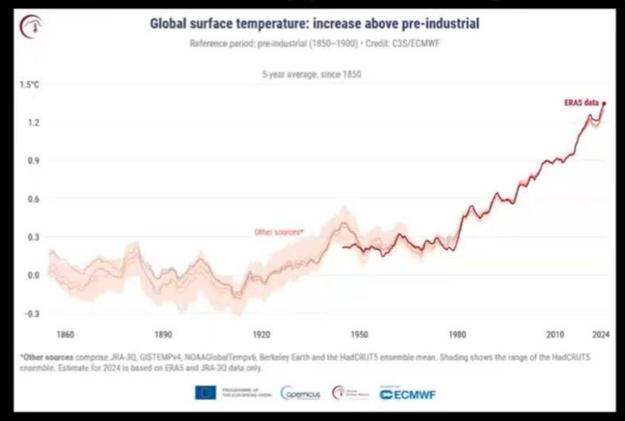








2024 - a second record-breaking year, following the exceptional 2023



- 2024 saw unprecedented global temperatures, following on from the remarkable warmth of 2023.
- 2024 also is the first year with an average temperature clearly exceeding 1.5°C above the pre-industrial level.









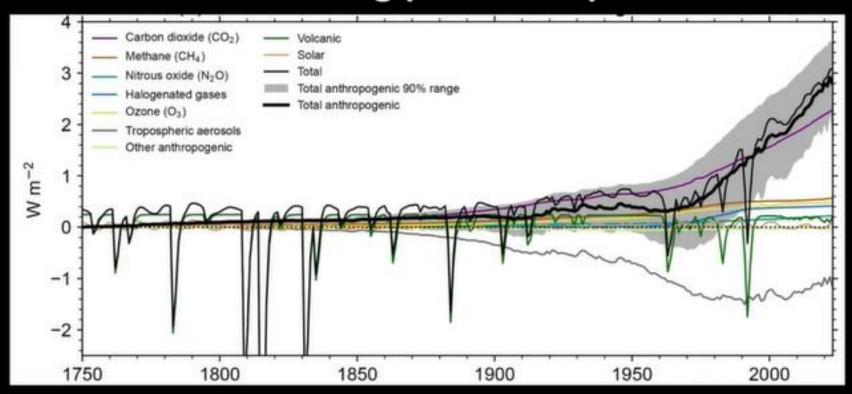








Effective Radiative Forcing (1750-2023)

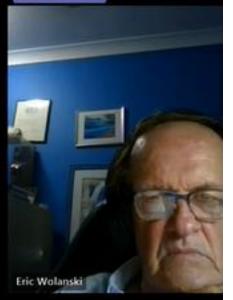


The estimate of ERF for 2023 is lower than in 2022. The main reason for the decline in 2023 relative to 2022 is a very strong contribution from biomass burning aerosol in 2023, particularly organic carbon emissions which strengthened the negative aerosol ERF. Sulfur emissions from shipping have declined since 2020, weakening the aerosol ERF and adding around +0.1 W m-2 over 2020 to 2023. However, the strengthened negative ERF from increased biomass burning likely dominated the effect of reduced shipping emissions.





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Source: Forster et al. (2024)

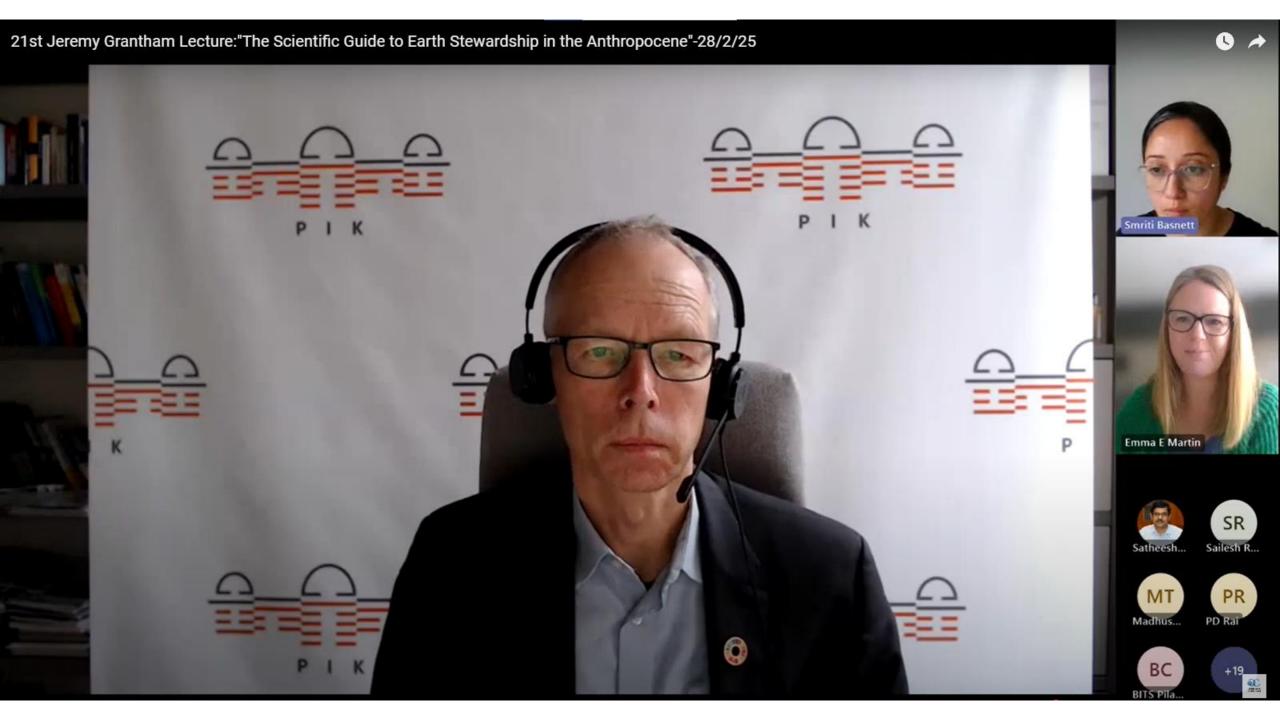








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