‘Earth warming at record rate but no proof climate change accelerating’

92% of last year’s record heat was caused by humans, finds study by group of 57 scientists

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The rate Earth is warming hit an all-time high in 2023 with 92 per cent of last year’s surprising record-shattering heat caused by humans, top scientists calculated.

The group of 57 scientists from around the world used UN-approved methods to examine what was behind last year’s burst of heat. They said even with a faster warming rate they don’t see evidence of significant acceleration in human-caused climate change beyond increased fossil fuel burning.

Last year’s record temperatures were so unusual that scientists have been debating what was behind the jump and whether climate change is accelerating or if other factors are in play.

“If you look at this world accelerating or going through a big tipping point, things aren’t doing that,” study lead author Piers Forster, a Leeds University climate scientist, said. It’s pretty much explained by the buildup of carbon dioxide from rising fossil fuel use, he and a co-author said.

Last year, the rate of warming hit 0.26 degrees Celsius per decade — up from 0.25 degrees Celsius the year before. That’s not a significant difference, though it does make this year’s rate the highest ever, Forster said.

Still, outside scientists said this report highlights an ever more alarming situation.

The team of authors — formed to provide annual scientific updates between seven-to-eight-year major UN scientific assessments — determined last year was 1.43 degrees Celsius warmer than the 1850 to 1900 average with 1.31 degrees of that coming from human activity. The other 8 per cent was due mostly to El Niño and also a freak warming along the Atlantic and just other weather randomness. On a larger 10-year time frame the world has warmed about 1.19 degrees Celsius since pre-industrial times, the report in the journal Earth System Science Data found.

The report also said that as the world keeps using coal, oil, and natural gas, Earth is likely to reach the point in 4.5 years that it can no longer avoid crossing the internationally accepted threshold for warming: 1.5 degrees Celsius.

University of Michigan environment dean Jonathan Overpeck and Berkeley Earth climate scientist Zeke Hausfather, neither of whom were part of the study, said they still see acceleration. Hausfather pointed out the rate of warming is considerably higher than 0.18 degrees Celsius per decade of warming that it was between 1970 and 2010.

Wednesday’s report didn’t find enough warming from other potential causes. The report said the reduction of sulphur pollution from shipping was overwhelmed last year by carbon particles put in the air from Canadian wildfires. The report also said an undersea volcano that injected massive amounts of heat-trapping water vapour into the atmosphere also spewed cooling particles with both forces pretty much cancelling each other out.

Texas Tech climate scientist and chief scientist at the Nature Conservancy Katharine Hayhoe said “the future is in our hands. It’s us — not physics but humans — who will determine how quickly the world warms and by how much”. **PTI**

AT A GLOBAL TIPPING POINT

- 2023 was **1.43°C warmer** than the **1850 to 1900** average
- Of this, **1.13°C** came from human activity
- **8%** was caused by El Niño and other weather events
- Increased fossil fuel burning can cause Earth to get warmer by **1.5°C in 4.5 years**
- **Reduction of sulphur pollution** was cancelled out by Canadian wildfires

1.5°C target limit may be surpassed by 2028: WMO

The UN weather agency is predicting an 80 per cent chance that average global temperatures will surpass the 1.5°C target within the next five years. The World Meteorological Organisation (WMO) said Wednesday that the global mean near-surface temperature for each year from 2024 to 2028 is expected to range between 1.1 and 1.9°C hotter than at the start of the industrial era. There’s nearly a one-in-two chance — 47 per cent — that the average global temperatures over that entire five-year span could top 1.5°C. **AP/PTI**