## 2024 Set to Become Warmest Year on Record

By Don Sutherland

2024 will easily become the world's hottest year on record so far. Only unprecedented cold for the remainder of December on a global basis would avert such an outcome.

2024 is also the latest year to see extreme events that were enhanced by climate change or were only made possible on account of it. July 2024 witnessed an <a href="extreme heatwave">extreme heatwave</a> in parts of Greece, Italy, Spain, Portugal, France and Morocco that would have been "virtually impossible" without human-induced climate change. During May-June 2024, climate change resulted in <a href="heatbeing more extreme and more persistent">heat being more extreme and more persistent</a> than it would otherwise have been. Large parts of the Asian continent experienced <a href="mailto:record-heat">record-heat</a> during April and May 2024 that was amplified by climate change. Parts of the Southwestern United States experienced an unprecedented autumn heatwave with Phoenix setting or tying daily records on 21 consecutive days.

Nevertheless, COP 29 produced another global failure to address climate change. The Conference failed to mention the role of fossil fuels. It did not establish binding and enforceable targets for reducing the burning of fossil fuels and greenhouse gas emissions. It reaffirmed the role of natural gas—a fossil fuel—as a "transitional" fuel.

Perhaps by 2100, with the world having warmed 2.6°C-3.1°C, and perhaps more if emerging cloud feedbacks enhance the warming, historians will look back at the 2000-2024 period for insight into how humanity failed to address the warming before it became truly dangerous. In doing so, they will find that human failure was a deliberate choice. Humanity possessed sufficient and credible information to understand climate change, they had a growing body of information demonstrating that climate change was affecting extreme events (heat, drought, excessive rainfall), and they had strong understanding of the cause of that warming: mainly the burning of fossil fuels. The historians will also find that humanity was aware of the consequences of failing to address the challenge of climate change, including the inevitable rise in sea level that, by 2100, was reclaiming parts of coastal cities and driving populations to higher land. In their analysis, the generation of leaders during 2020-2024 will stand convicted by time of profound abdication of their responsibility to their populations.

Today, even as the pathways to respond have narrowed, humanity can choose a different future. By 2100, today's choices will have locked in a future that would have become present reality.

Researchers looking back will find that today's society was imprisoned by status quo bias. They will find that at virtually every moment of choice, leaders exaggerated the costs of societal change to cleaner technology—technology that already exists—while rallying around fossil fuels as "cheap," "dependable," "reliable," and even, all things considered, "beneficial." They will find that even as colleges and universities have been teaching the sunk cost fallacy for generations, political and business leaders largely maintained the status quo through a psychological commitment to a dangerous source of energy that had underpinned society since the Industrial Revolution. The end result was systemic inertia that locked in a hotter future that had been avoidable.

Would a rational society actually choose a hotter future that adversely impacts crop production, warms and acidifies the oceans decimating food chains, exposes trillions of dollars of real estate to sea level rise, accelerates an increase in extinctions, and precipitates concurrent weather extremes far beyond those that are occurring right now? What if that society learned that some of the cloud feedbacks that increased the sensitivity of climate to greenhouse gases in the paleoclimate record were starting to appear in the evidence? Unambiguously, no.

But a society blinded by status quo bias, soothed by the siren song of climate change denial, and led by those who lack courage, imagination, and the ability to see beyond the present, might well take that path. The failure of COPS 28 and 29 despite the records and extremes that were set in 2023 and 2024 offers a glimpse of the power of status quo bias.