

EPISODE 1

# Yes, people are changing the climate

## 2 ANSWERS TO SCEPTICAL QUESTIONS

“Isn’t it true that the Earth has been hotter and cooler in the past?”

Yes, the Earth has experienced natural climate fluctuations over its long history unfolding across billions of years. However, coinciding with the **Industrial Revolution**, the world has undergone **profound transformations**. One telling indicator of this transformation is the **concentration of carbon dioxide (CO<sub>2</sub>) in the atmosphere**. The recent surge in carbon dioxide levels is closely intertwined with a concurrent **rise in global temperatures**, serving as a stark indicator of **human influence** on the planet.

“Couldn’t it be possible that the current increase in global temperature is caused by natural factors?”

While natural climate factors, like orbital variations, solar activity, and volcanic activity, have an influence on the climate, the current global **warming trend cannot be attributed solely to natural factors**. Over the past century, **human actions** have caused a rapid increase in the concentration of CO<sub>2</sub> in the atmosphere, which, along with other greenhouse gases, is the **primary driver** of the recent 1.2°C **global temperature rise**. This marks a clear **departure from natural climate patterns**.

### 3 FAST FACTS

**6 sec.**

– that’s how long human existence on Earth would be if we condensed the planet’s 4.5-billion-year history into just one day.

**1.2 °C**

– the global temperature surge since the Industrial Revolution<sup>1</sup>. While this increase may seem modest, it is remarkably significant considering the brief time span of change.

**100x**

– how much faster the annual increase in atmospheric carbon dioxide has been over the past 60 years compared to previous natural increases<sup>2</sup>.

<sup>1</sup> Copernicus 2023, <sup>2</sup> Climate.gov 2023

## 3 KEY TAKEAWAYS

- ▶ The Earth has been warmer in the past, but that was before human society came to life on earth.
- ▶ People are the drivers of change today, and it is up to us where the climate goes from here.
- ▶ We are in a precious window during which human choices and actions will determine our future path.

## 3 ESSENTIAL RESOURCES

- ▶ Humans are a recent addition to Earth. This [chart by Our World in Data](#) shows the world’s population over the last 10,000 years.
- ▶ This [chart](#) illustrates the increase of global CO<sub>2</sub> and temperature within the last 1,000 years.
- ▶ What’s really warming the world? These charts by Bloomberg depict the impact of [natural factors](#), [human factors](#) and the [combination of both](#).