

# CLIMATE CHANGE

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- # About **67 percent** of the electricity generated globally was from fossil fuels (coal, natural gas, and petroleum) in 2014, dumping millions of tons of carbon dioxide, arguably the prime reason for global warming, into the atmosphere.
- # The EPA reports that **carbon dioxide emissions in the U.S. increased about 7 percent** between 1990 and 2013, with emissions from fossil fuel electricity generation being a leading factor in the overall growth in emissions.
- # U.S. **carbon dioxide emissions from energy consumption rose 3 percent** in the first six months of 2014 compared to the same period in 2013, reversing a downward trend from 2012 to 2013.
- # China, the world's highest emitting country, is **responsible for 29 percent** of carbon dioxide emissions in 2012, expects to see its emissions continue to increase and peak in 2030.
- # Since the start of the Industrial Revolution, the **Earth has warmed by about 0.9 degrees Celsius.**
- # Even if all new emissions halted entirely, the Earth is likely to continue to become about 0.6 degrees Celsius warmer, or a total of **1.5 degrees Celsius over pre-Industrial Revolution times.**
- # According to the Environmental Protection Agency for about every 2°F (about 1.11 degrees Celsius) of warming, the expectation is to see:
  - \* 5 to 15% reductions in the yields of crops as currently grown
  - \* 3 to 10% increases in the amount of rain falling during the heaviest precipitation events, which can increase flooding risks
  - \* 200 to 400% increases in the area burned by wildfire in parts of the U.S.
- # **Key dates**
  - \* 1990: The first report by the U.N.'s Intergovernmental Panel on Climate Change (IPCC) says the world has warmed and future warming is likely.
  - \* 1995: Second IPCC report detects "signature" of human-caused greenhouse effect warming, says that serious warming is likely in the coming century.
  - \* 1997: Kyoto Protocol established setting targets for industrialized nations to reduce greenhouse gas emissions. (rejected by US Senate in advance).
  - \* 2001: Third IPCC report states that global warming, unprecedented since the end of the last ice age, is "very likely," with highly damaging impacts.
  - \* 2005: Kyoto treaty goes into effect, signed by major industrial nations except U.S. Work to retard emissions accelerates in Japan, Western Europe, U.S. regional governments and corporations.
  - \* 2007: Fourth IPCC report reports that the cost of reducing emissions would be far less than the damage they will cause
  - \* 2015: The twenty-first session of the Conference of the Parties (COP) and the eleventh session of the Conference of the Parties to the United Nations Framework Convention on Climate change will take place from November 30 to December 11, 2015, in Paris, France.

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