

Climate Change and Global Warming

Major abrupt climate change points-

1. **The Greenhouse Effect** - Gases such as CO₂, CH₄ (GHG) absorb heat, thus acting like a blanket warming Earth's surface. Today CO₂ is above 414 ppm. Ref. <https://scripps.ucsd.edu/programs/keelingcurve/>
2. The **total energy imbalance** now is about six-tenths of a watt per square meter. - It's about 20 times greater than the rate of energy use by all of humanity. **It's equivalent to exploding 400,000 Hiroshima atomic bombs per day 365 days per year.** That's how much extra energy Earth is gaining each day. TED talk 2012. James Hansen, Father of Global Warming Awareness, headed the NASA Goddard Institute for Space Studies from 1981 to 2013. **Current Global Temperature** trend is: <http://www.columbia.edu/~mhs119/Temperature/> **Analysis Graphs and Plots:** <https://data.giss.nasa.gov/gistemp/graphs/> Climate Change in a Nutshell: The Gathering Storm (18 December 2018 draft) http://www.columbia.edu/~jeh1/mailings/2018/20181206_Nutshell.pdf Ref. https://www.ted.com/talks/james_hansen_why_i_must_speak_out_about_climate_change
3. We are spewing **110 million tons of heat-trapping global warming pollution** into atmosphere every 24 hours, free of charge... We still rely on dirty, **carbon-based fuels for 85 percent of all the energy** that our world burns every year... Accumulated amount of man-made, global warming pollution that is up in the atmosphere now traps **as much extra heat energy as would be released by 400,000 Hiroshima-class atomic bombs exploding every 24 hours, 365 days a year...** But on a global basis, **93 percent of all the extra heat energy is trapped in the oceans...** From 2000, every year (excluding one) is hottest of last **800,000 years passed.** Ref. Al Gore Climate advocate, Nobel Laureate. https://www.ted.com/talks/al_gore_the_case_for_optimism_on_climate_change
4. As it turns out, the **so-called 40-year Climate Lag** is dangerously conservative. A paper in the 3 December 2014 issue of Environmental Research Letters <https://iopscience.iop.org/article/10.1088/1748-9326/9/12/124002> indicates that **maximum warming from carbon dioxide emissions occurs about one decade after a carbon dioxide emission.** Ref. The 40 Year Delay Between Cause and Effect <http://www.skepticalscience.com/Climate-Change-The-40-Year-Delay-Between-Cause-and-Effect.html>
5. A paper in the 27 March 2014 issue of Nature <https://www.nature.com/articles/nature13164> articulates the strong **interconnection between methane release and temperature rise:** "For each degree that Earth's temperature rises, the amount of methane entering the atmosphere ... will increase several times. As temperatures rise, the relative increase of methane emissions will outpace that of carbon dioxide." <https://www.sciencedaily.com/releases/2014/03/140327111724.htm>
6. **69 Self-Reinforcing Feedback Loops** have already been started. Increase in heat energy increases some variable which in turn increase heat energy within our system-habitat. Ref. Guy R. McPherson, @Guy_McPherson <https://guymcpherson.com/climate-chaos/climate-change-summary-and-update/>
7. UN chief António Guterres – **Climate change is an existential threat for most life on the planet** – including, and especially, the life of humankind.
8. **What is the meaning of our life if we work and live destroying the planet while sacrificing the future of our children ...and our decision, our concise decision is to reduce the opportunities for our children and grand children?** - To joint session US Congress April 25 2018 by French President Emmanuel Macron <https://www.youtube.com/watch?v=5a3d0LDXhJQ>
9. **Do you really love your children? You are stealing their future before their own eyes.** - Greta Thunberg <https://www.youtube.com/watch?v=mxTzzSPRxUE>
10. **Meat consumption is number one cause of Environment destruction.**
11. **90 percent of all large fish**, such as tuna and swordfish, **have disappeared from the oceans in the past 50 years.** Ref. <http://www.magicporthole.org/ocean-census.html>

12. **Very soon there would be no Arctic sea ice during summer.** The North Pole, (A/C of Earth) is warming twice as fast as the rest of the world for the past 50 years. Source: Arctic monitoring and Assessment Programme.

13. **Oceans being heated by one atom bomb explosion per second from past 150 years. Now 3-6 atom bomb per second.** Source: PNAS, 2019.

14. **A third of Himalayan ice cap doomed,** finds report

<https://www.theguardian.com/environment/2019/feb/04/a-third-of-himalayan-ice-cap-doomed-finds-shocking-report>

15. **Growth of carbon dioxide in the atmosphere is accelerating.** <https://arctic-news.blogspot.com/2019/01/accelerating-growth-of-carbon-dioxide-in-the-atmosphere.html>

16. Furthermore does hardly anyone speak about the fact that **we are in the midst of the sixth mass extinction, with up to 200 species going extinct every single day, that the extinction rate today is between 1,000 and 10,000 times higher than what is seen as normal.** - What we do or don't do right now will affect my entire life and the lives of my children and grandchildren. What we do or don't do right now, me and my generation can't undo in the future? - Today, we use 100 million barrels of oil every single day. - we can't save the world by playing by the rules, because the rules have to be changed. Everything needs to change -- and it has to start today. - **Greta Thunberg at TED 2019** -

https://www.ted.com/talks/greta_thunberg_the_disarming_case_to_act_right_now_on_climate

17. **Warming seas will increase frequency of extreme storms** - https://phys.org/news/2019-01-seas-frequency-extreme-storms.html?fbclid=IwAR3n9S1_2J1-LeLRjKUOW3NXIZ5-m0JVmKj9EwFSUXwIPJfRpFCENNYQmQw

18. **Bees Are Facing Yet Another Existential Threat** -

<https://www.motherjones.com/environment/2019/01/bees-are-facing-yet-another-existential-threat/?fbclid=IwAR2zPPZVboCGuQjbG289OMwGpD-l5cJVTxWX2SaDaDgYTMnwufzpyFhzfIU>

19. **13 Reasons Why the Humanity Would Hardly Survive the Global Warming** -

<https://www.youtube.com/watch?v=SA8saNzV11g>

20. World Meteorological Organization announced it, too, measured 2018 as the fourth warmest on record placing it behind 2016, 2017 and 2015...Petteri Taalas, secretary general of the WMO. **“The 20 warmest years on record have been in the past 22 years.** The degree of warming during the past four years has been exceptional, both on land and in the ocean.” On 07.01.2019 Source:

<https://www.theguardian.com/environment/2019/feb/06/global-temperatures-2018-record-climate-change-global-warming>

23. David Wallace-Wells on climate: ‘People should be scared – I'm scared’ -

<https://www.theguardian.com/environment/2019/feb/03/david-wallace-wells-on-climate-people-should-be-scared-im-scared>

a.) astonishing fact that **more than half of the carbon we have emitted into the atmosphere from burning fossil fuels was emitted in the past 25 years,** that really shocked me. This means we have burned more fossil fuels since the UN established the Intergovernmental Panel on Climate Change (IPCC) than in all of the centuries before

24. **"The End of Ice":** Antarctica and humanity in the age of climate disruption

<https://www.youtube.com/watch?v=N7BeUxCGp2k> For every ppm rise of CO₂, there is “one foot” of sea level rise. **At present, it's 135 feet sea level rise is in pipeline.** ... Jamail points out that, “The oceans have absorbed 93% of all the heat that humans have added to the atmosphere. That's enough heat for example, that if they hadn't been absorbing that heat the temperature of the atmosphere would be 97 degrees [Fahrenheit] hotter than it is right now.”

Solution: -ve Energy & Carbon footprint based lifestyle like our Gurusatta, vegetable based diet with plantation for biodiversity and use of *Vedic* method (*Gayatri* & *Yagya*) to reduce solar luminance by approximately 1% (~2.4W/m) to balance energy within system.