

"Climate change is the single greatest threat to a sustainable future but, at the same time, addressing the climate challenge presents a golden opportunity to promote prosperity, security and a brighter future for all."

Ban Ki-Moon, Secretary General of UN (2007-2016)

Introduction to the problem and scale

- There have always been natural fluctuations in the Earth's temperature, but scientific evidence now shows that temperatures are rising faster than at any other time. The Earth has warmed by around 1°C since the beginning of the Industrial Revolution and this has been driven mainly by human activity.

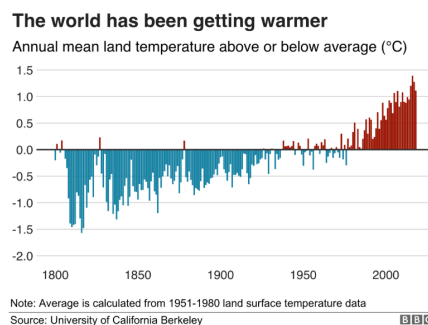


Chart taken from the BBC Website (1)

- In 2019, the **Intergovernmental Panel on Climate Change (IPCC) Report 2019 (2)** issued a warning that *"rapid, far-reaching and unprecedented changes in all aspects of society"* were required to limit global warming to 1.5°C. The report went on to highlight that a *"rise between 1.5°C and 2°C may push both human societies and natural ecosystems past critical thresholds for catastrophic change"*. The IPCC report highlights for the first time a clear link between lifestyle choices and warming, citing four key areas where change should take place: energy generation, land use, cities and industry. The Special Report was commissioned as part of the **2015 Paris Agreement** when 197 countries agreed to tackle manmade climate change.
- The Paris Agreement set a target to keep global warming to below 2°C, with a further aspiration to keep within 1.5°C. It provides a long-term direction of travel for countries along with a new system of regular five-year review cycles. In 2023, a *'global stocktake'* will take place to measure overall progress towards achieving the Paris Climate targets. Governments agreed to publish their commitments known as Nationally Determined Contributions (NDC's) which

outline proposed actions to be taken to reduce emissions. Country progress reports will take place every two years.

- According to the NOAA 2019 Global Climate Summary, the five warmest years in the 1880–2019 record have all occurred since 2015, while nine of the 10 warmest years have occurred since 2005. (3)
- As the Earths' *average global temperature* rises, the impact of extreme weather conditions will intensify causing more severe droughts, heatwaves, hurricanes and floods. Increased volatility of extreme weather patterns is already affecting farmers and food producers across the world affecting crop production and resulting in lost harvests. The FAO estimate crop yields could fall between 10-25% by 2050 as a result of climate change. (4)
- Sea levels are rising as glaciers and ice sheets melt due to global warming, it is estimated these could rise to between 0.4m and 0.82m by 2018-2100. (5)
- Rises in sea level will threaten the livelihoods of those living in coastal and river areas currently estimated at 60% of the world population and will prompt large scale migration - a cause for growing conflict. (6)
- The climate crisis is also a health crisis: the same emissions that cause global warming are responsible for more than one-quarter of deaths from heart attack, stroke, lung cancer and chronic respiratory diseases. (7)
- Increased carbon dioxide emissions are also impacting the oceans and threatening many marine species and ecosystems. Ocean acidification negatively impacts corals, plankton, and shellfish. (8)
- Warming oceans are also leading to more outbreaks of algal blooms which negatively impact fish populations. (9)
- Wild animal and plant populations are also impacted– it is estimated that around 20-30% of plants and animals are likely to disappear as global temperatures rise between 1.5°C and 2°C. (10)

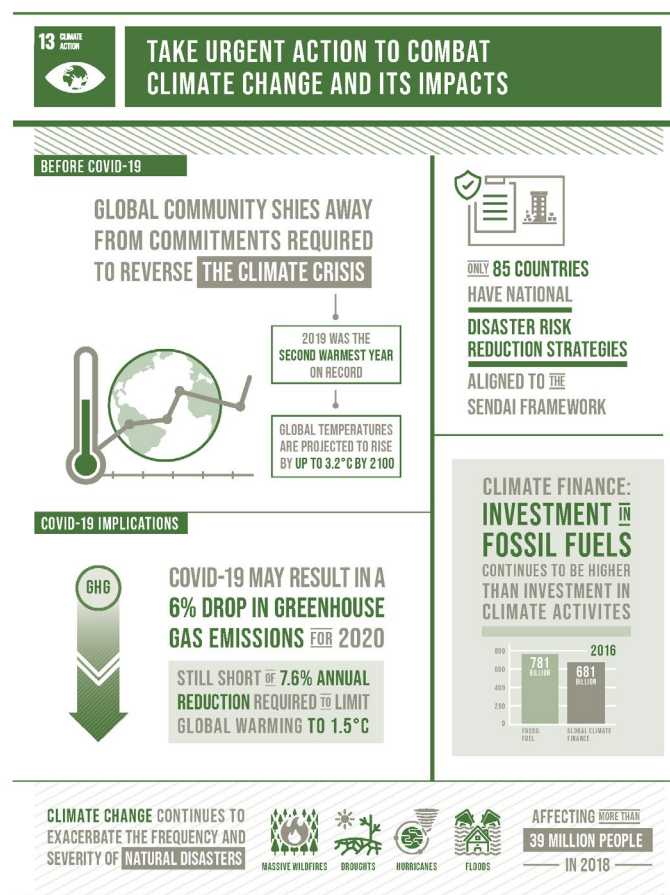
Link to intensive animal farming

- Globally, food systems are responsible for 20-30% of anthropogenic greenhouse gas (GHG) emissions. (11) Transportation and distribution of food (i.e. food miles) are responsible for a fraction of GHG emissions compared to the production phase. (12)
- A study published in Nature (2018) shows that globally, business as usual in food production and consumption will lead to an 87% increase in GHG emissions by 2050 (compared with 2010). (13)
- It is estimated that the livestock industry is currently responsible for around 18% of all anthropogenic GHG emissions globally (14, 15). If the livestock sector were to continue with business as usual, this sector alone could account for up to 50% of the emissions budget for 1.5°C by 2030 (16).
- Animal protein requires ten times as much energy to produce, as plant protein. (17) Deforestation, methane emissions and fertilizer use, adds further emissions.
- Livestock production is a key driver of deforestation as land is cleared to provide pasture and as cropland for animal feed production. (18)
- Tackling climate change will be impossible without reducing meat consumption (19). A significant reduction in meat and dairy consumption is essential if food-related emissions are to decrease and if the Paris targets are to be met. (20) (21)

- “The world’s current consumption pattern of meat and dairy products is a major driver of climate change and climate change can only be effectively addressed if demand for these products is reduced” Hilal Elver, UN Special Rapporteur on the right to food stresses. (22)
- Enteric emissions and feed production (including manure deposition on pasture) dominate emissions from ruminant production. In pig supply chains, the bulk of emissions are related to the feed supply and manure storage in processing, while feed supply represents the bulk of emissions in poultry production, followed by energy consumption. (23)

Link to the relevant SDG(S)

- **SDG 13:** Climate Action: Take urgent action to combat climate change and its impacts. (23)



Source: <https://unstats.un.org/sdgs/report/2020/>

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