1 WHAT IS CLIMATE CHANGE?

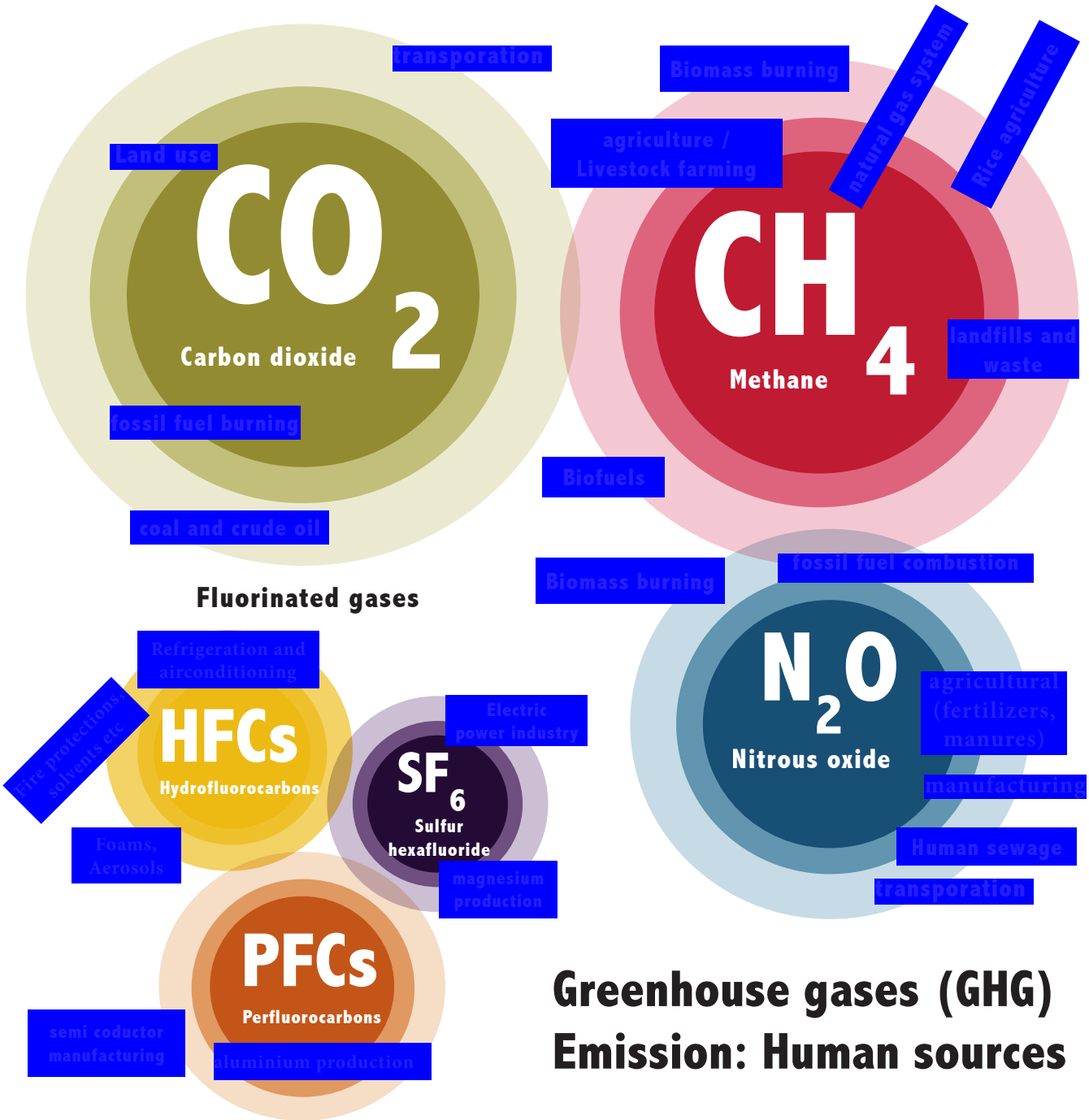
ANY CHANGE IN CLIMATE OVER TIME DUE TO NATURAL FACTORS, HUMAN ACTIVITY OR BOTH.

The Earth has warmed by an average of **1°C OVER THE LAST 100 YEARS** and is expected to **INCREASE A FURTHER 2-6°C OVER THE NEXT CENTURY**. If no action is taken, it would have the following harmful consequences to humanity and the biosphere.

- Lead to serious **WATER CRISIS.**
- **1 MILLION** Animal and Plant species at risk of extinction.
- Estimated **2.4 MILLION** premature deaths from air pollution by **2030**. In India **600 MILLION** people are at risk from its effects.
- Estimated **52 MILLION** tonnes of crop losses per year.

Greenhouse gas emission is the main cause for the climate change.

Greenhouse gases are not, inherently, a bad thing. But the growing concentration of greenhouse gases in the atmosphere has been raising average temperatures around the world. Carbon dioxide CO2, Methane CH4 and Nitrous oxide N2O are emitted to the atmosphere through natural processes as well as human activities (use of fossil fuels, industrial production, etc). The fluorinated gases on the other hand, are created and emitted almost exclusively through human activities.



Greenhouse gases (GHG) Emission: Human sources

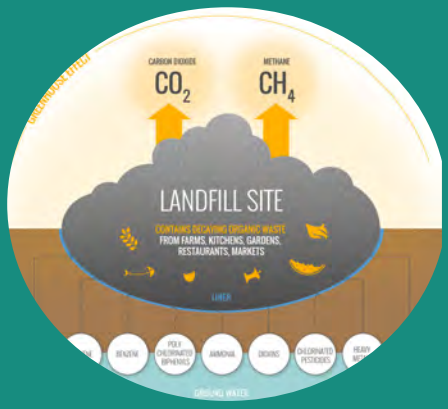
2 SOURCES OF GHG EMISSIONS

1. Burning fossil fuels - Industries have been burning large amounts of fossil fuels such as oil and gas which produces carbon dioxide.

2. Intensive Farming - Ever-increasing livestock which releases huge methane gas, plant protection production and fertilizers.

3. Deforestation - Forests absorb huge amounts of carbon dioxide from the air, and release oxygen back into it. Many forests are being cut down to make wood, palm oil and to clear the way for

farmland, roads, oil mines, and dams. When they are cut down, the carbon stored in the trees is released into the atmosphere.



4. Waste management methods like landfills and incineration emit greenhouse and toxic gases that are released into the atmosphere, soil and waterways. 1 tonne of biodegradable waste comprises approximately 50-55% methane and 40-45% carbon dioxide (CO2).

5. Metals and minerals are the raw materials used in the construction, transportation and manufacturing of goods. From extraction to delivery, this market accounts for 5% of all greenhouse gas emissions.

6. Overconsumption is responsible for the overexploitation of natural resources and emissions from international freight transport, which both contributes to global warming.

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