

# ► TOPIC | THE QUESTION | OF GLOBAL WARMING

## Introduction and terminologies:

**Global warming** is the slow increase in the average temperature of the earth's atmosphere because an increased amount of the energy (heat) striking the earth from the sun is being trapped in the atmosphere and not radiated out into space which leads to so much heat being kept inside the greenhouse, therefor Earth's temperature is increasing faster than at any time previously.

In other words it's the trapping of the sun's warmth in a planet's lower atmosphere, due to the greater transparency of the atmosphere to visible radiation from the sun than to infrared radiation emitted from the planet's surface.

Without our atmospheric greenhouse the earth would be very cold. Global warming, however, is the equivalent of a greenhouse with high efficiency reflective glass installed the wrong way around.

**The greenhouse effect** is defined as when the Earth's atmosphere becomes thick with gases and substances which trap the sun's radiation, making the Earth warmer. An example of the greenhouse effect is global warming.

# Causes of global warming:

# **Burning fossil fuels**

Because burning and using fossil fuels and gas to create electricity or power cars a huge amounts of CO2 will be released leading to pollution into the atmosphere.

## Causes of global warming:

### **Deforestation & Tree-Clearing**

Plants and trees play an important role in regulating the climate because they absorb carbon dioxide from the air and release oxygen back into it; so deforestation will certainly cause the accumulation and increase of CO2 In the atmosphere.

#### **Agriculture & Farming**

Animals, livestock like sheep and cattle, produce methane, a greenhouse gas. When livestock grazed at a large scale, as in Australia, the amount of methane produced is a big contributor to global warming.

# Effects of global warming:

Global warming is projected to have a number of effects on the oceans. One of the major effects include rising sea levels due to thermal expansion and melting of glaciers and ice sheets, and warming of the ocean surface, leading to increased temperature stratification as well as an increase in occurrence and severity of storms and other severe weather events.

#### Solutions:

- Reducing the amount of electricity generated from coal and gas
- Increasing the amount of electricity from clean, renewable energy sources like solar and wind
- Prevent deforestation and tree-clearing
- Plant more trees through reforestation and afforestation Shop sustainably
- Call on our leaders to introduce stronger laws to stop excessive tree-clearing
- -Use different stock feeds can help to reduce farming's contribution to climate change

## Paris Climate Agreement:

On 12 December 2015, Parties to the UNFCCC reached a landmark agreement to combat climate change and to accelerate and intensify the actions and investments needed for a sustainable low carbon future. The Paris Agreement for the first time brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort.

#### Countries involved:

**The United States:** are responsible for about 15%-19% of the percentage of global carbon emission in the world. On 1 April 2016, the USA along-side China issued a joint statement confirming that both countries would sign the Paris Agreement. Although on June 1, 2017 United states President Donald J. Trump announced the withdrawal on all participation in the 2015 Paris Agreement.

**China:** In 2015, China surpassed the US as the main cause of man-made global warming since 1990. That means China is currently the biggest contributor of greenhouse gas emissions. China's contribution has increased as its economy has grown the Chinese government has switched to a proactive stance on climate governance and low-carbon development. Due to significant improvements in CO2 efficiency and a clear slow-down in the rise of its annual total CO2 emissions, China is increasingly perceived as a new low-carbon champion.

**Australia:** is vulnerable to the effects of global warming projected for the next 50 to 100 years because of its extensive arid and semi-arid areas, an already warm climate, high annual rainfall variability, and existing pressures on water supply. Hotter days, rising sea levels, more frequent and intense extreme weather events, and the warmth of oceans increasing are all side-effects of climate change.

## Useful resources:

https://climate.nasa.gov/evidence/ https://www.wf.org.au/what-we-do/climate/causes-of-global-warming#gs.i3lk14 https://www.livescience.com/topics/global-warming https://www.nationalgeographic.com/environment/global-warming/global-warming-effects/