

# GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA



## PRESENTATION ON GLOBAL WARMING

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**B.TECH CE (2023-2027)**

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# GLOBAL WARMING

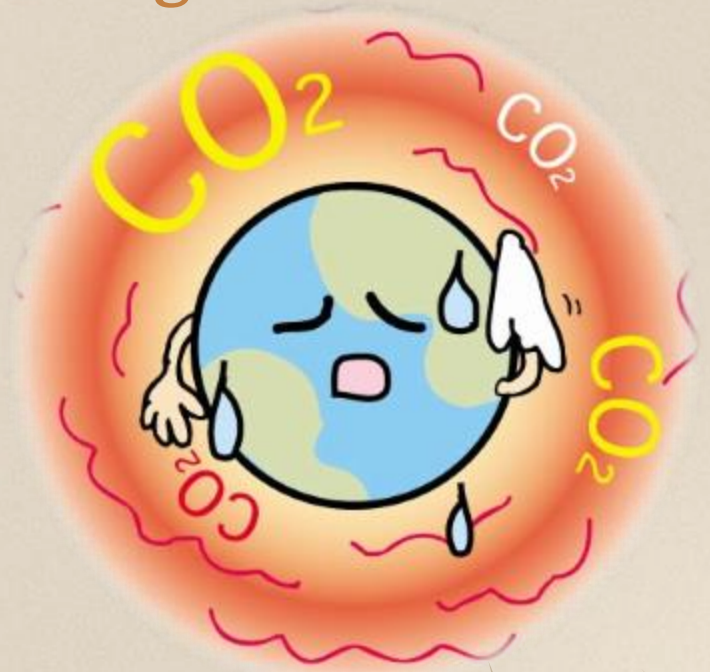
*It's impact and possible causes..*



"Global warming is one of the most pressing issues of our time, it means the gradual increase in the average temperature of the earth's surface and oceans. This presentation will go through into the complexities of global warming, exploring its causes, impacts."

# Definition of Global Warming

Global warming refers to the long-term rise in the average surface temperature of the Earth due to the increasing levels of greenhouse gases in the atmosphere. These gases, such as carbon dioxide ( $\text{CO}_2$ ), methane ( $\text{CH}_4$ ), and water vapor, trap heat from the sun, leading to a warming effect on the planet.



*Earth provides enough to satisfy every man's  
need, but not every man's greed.....*

~ MAHATMA GANDHI



# Causes of Global Warming...

Here are the main causes of global warming:

## Greenhouse Gases (GHGs):

1. **Carbon dioxide (CO<sub>2</sub>):** Fossil fuel burning, deforestation, land-use changes.
2. **Methane (CH<sub>4</sub>):** Agriculture (especially rice and cattle), natural gas production, landfills(area where disposal waste get collected).
3. **Nitrous oxide (N<sub>2</sub>O/laughing gas):** industrial processes, burning fossil fuels.
4. **Fluorinated gases (F-gases):** Air conditioning, refrigeration, electrical equipment.

## Human Activities:

1. **Burning fossil fuels:** Electricity generation, transportation, industry.
2. **Deforestation and land-use changes:** Agriculture, urbanization, logging.
3. **Agriculture:** Livestock production, rice cultivation, fertilizer use.
4. **Industrial processes:** Cement production, steel manufacturing, chemical processing.





## Natural Factors:

1. **Volcanic eruptions:** Release of sulfur dioxide and ash into the atmosphere
2. **Changes in Earth's orbit:** Variations in solar radiation.



## Population Growth and Consumption:

1. **Increasing energy demand:** More people, more energy consumption
2. **Resource extraction and waste:** More consumption, more waste

## Global Warming impact on Infrastructure

- **Temperature changes:** effects on building materials and structural
- **Extreme weather:** increase intensity of storms, floods, and hurricanes
- **Sea-level rise:** Risk to coastal infrastructure and cities

# Impacts of Global Warming...

## Environmental Impacts:

- **Rising Sea Levels:** Thawing of polar ice caps and glaciers, leading to coastal erosion, flooding, and saltwater intrusion into freshwater sources.
- **Extreme Weather Events:** Increased frequency and intensity of heatwaves, droughts, storms, and heavy rainfall, resulting in loss of life and property.





## Social Impacts:

- **Displacement and Migration:** Rising sea levels, droughts, and extreme weather events can lead to displacement and migration of communities.
- **Food Insecurity:** Changes in temperature and precipitation patterns can impact food availability
- **Mental Health:** The stress and trauma caused by global warming can impact mental health and well-being.





# Solution and Actions.....

## Civil engineers Actions:

1. **Research and Innovation:** Invest in research and development of new materials, construction techniques, and technologies that reduce environmental impact
2. **Coastal production:** Develop construct sea walls, and storm rush barriers to protect coastal areas from rising sea levels.
3. **Water resource management :** Imp design water-efficient systems for building like rainwater harvesting, or wastewater treatment to provide water source in region facing water scarcity.
4. **Sustainable building material:** use low-carbon concrete and green-certified product

Many more.....



# Individual Actions:

1. **Reduce energy consumption:** Use energy-efficient appliances, turn off lights/electronics when not in use.
2. **Use renewable energy:** Invest in solar panels or renewable energy credits.
3. **Conserve water:** Take shorter showers, fix leaks.
4. **Recycle and compost:** Reduce waste.
5. **Use public transport or walk/bike:** Reduce carbon footprint.



## CONCLUSION:

Global warming is a pressing issue that requires immediate attention and collective action. The scientific evidence is clear: human activities are causing the Earth's temperature to rise at an unprecedented rate, with devastating consequences for our planet and its inhabitants.



*"Stop global warming, start global cooling"*

THANK YOU...

