

Topic:

The threat of Global Warming and Ways to Counter it or Climate change

Outline:

1. Introduction:

1.1- Emergence of Industrial revolution

1.2- What is Global warming / climate change?

2. Thesis Statement:

Global Warming is not just an environmental issue but a serious existential threat for human survival. There are various causes including industrial revolution that promotes the emission of greenhouse gases, fossil fuel, deforestation and many more that causes catastrophic threats to nature and humanity. But with strong policies and joint global action can counter this issue play key role to.

3. Causes of Global Warming:

- 3.1- Industrial revolution was major threat, causing greenhouse gas
- 3.2- Burning of fossil fuel produce 50% CO₂
- 3.3- Deforestation causes increased level of CO₂ and promote global warming
- 3.4- Transportation produces toxic gases (SO_x, NO_x)
- 3.5- Depletion of ozone layer.
- 3.6- Volcanism cause increase of high temperature
- 3.7- Urbanization also ~~produce~~ play role in Global warming



4. Effects / Threats of Global Warming:

4.1. Increasing global Temperature

- As per The Guardian, The world has warmed by about 1.6°C above pre-industrial levels (1850-1900) as of 2024.

- There is a strong chance that in the next few years annual average will temporarily exceed that 1.5°C threshold again. (Financial Times Report 2025)

4.2. Reported Warm years.

- 2024 was confirmed by NASA and WHO the warmest year globally since 1850 and 2025 continuously following the trend.

4.3. Thawing glaciers or Melting of Polar ^{ice} Sheets

2000-2020, glaciers lost 267 gigatonnes annually.

2000-2024, Total loss $\approx$ 6.5 trillion tonnes of ice

4.4. Rising of Sea level

- Global mean sea level has risen by about 21-24cm by 2023

- Currently rate is $\sim$ 3.3 to 4.5mm per year and accelerating (ESA climate office report)

4.5. Danger to coastal populations

- About 40% of world population lives in area vulnerable to inundation from rise of sea level.

- Even a modest rise threatens large scale displacement in coastal cities

4.6. Floods and heavy rainfall

- Globally $\sim$ 2.2 billion people (29% of world population) are vulnerable to floods

- In 2023 floods caused about 9.8 million displacement

- In Pak, rainfall was $\sim$ 15% more than average

- Flood of 2023 cause $\sim$ 831+ deaths, over 4.2 million people affected and 1.8 million people displaced.

4.7. Cloud burst a major threat.

- cloudburst in Buner, August 2025 caused 300 deaths and

- Flood of 2025 cause ~ 831+ deaths, over 4.2 million people affected and 1.8 million people displaced.

4.7 - Cloud burst a major threat.

- Cloudburst in Buner, August 2025 caused 300 deaths and massive destruction due to flood.

4.8 - Spread of diseases due to change in climate

- WHO reported in 2024 that climate driven diseases (malaria, dengue, cholera) surged by 30% in South-Asia.
- Expected to cause ~ 250,000 additional deaths per year between 2030-2050, from undernutrition, malaria, heat stress.

4.9 - Loss of biodiversity:

- Wildlife population declined 68%. (WWF, 2020)

4.10 Wildfire due to heat wave:

- 2024, About 13.5 million hectares of forest were burned globally.

5 - Combating global warming:

5.1 - Earth Summit 1992

- To reconcile environmental protection with development (sustainable development)

5.2 - Kyoto Protocol 1997

(For reduction of GHGs.)

5.3 - Copenhagen 2009

(Aim to secure global climate, GHGs reduction)

5.4 - Paris Summit 2015

(Aim to reduce GHGs, 43% drop by 2030 vs baseline if wanting 1.5°C)

5.5 - Vision - 30

(50% power shift to renewable sources by 2030)



5.6- Ten Billion Tree Tsunami Programme of Pakistan

6. Suggestions to Control Global warming,

6.1- Reduction of fossil fuel.

6.3- Growing more forests.

6.4- Use alternative source of energy

6.5- Introducing Zero carbon technology

6.6- Green transportation.

6.7- Use of solar energy and Geothermal energy

6.8 Latest technology.

7. Conclusion.

"An old Women is struggling rescue herself from water that is touching her shoulder and she is struggling to protect her two dearest things one is coming generation and second one is the source of an income and she is walking in water that has been happened due to flood and This flood is due to Global warming." Global warming is one of the emerging issue commenced since 1800's when Industrial revolution has raised. As burning of fossil fuel like

Coal later on oil and gas produces carbon dioxide (CO_2) and harmful gases mainly green house gases in excessive amount. Thus, the rise of global temperature by its average temperature. It is caused by release of green house gases like CO_2 , CFCs and other pollutant. It is also due to burning of fossil fuels, deforestation, depletion of ozone layer, volcanism and urbanization. These poses a ^{serious} threats by increasing global temperature, thawing of glaciers and melting of polar sheets, rising of sea level, danger to ~~the~~^a coastal population, Heavy rainfall and flashflood, cloud burst and loss of biodiversity. But by implementing strong policies that can help to combating global warming include Earth summit of 1992, Kyoto Protocol of 1997, Copenhagen conference of 2009, Paris summit of 2015 and Vision 30 of Sustainable development and there are some practical ways to counter the issue by reducing the use of fossil fuel, growing more forest, use alternate source of energy like solar energy and geothermal energy, Introducing zero carbon technology and promoting green transportation.

The Essay will discuss the global warming it causes, effects, ways to combat and some recommendations.

