

# Climate Change: Causes & Consequences

## Brainstorm

### Causes

- Greenhouse Gases Emission
- Human Activities
- Deforestation
- Land use changes
- Industrialization
- Energy Consumption (increased)
- Transport (vehicles)
- Waste Management (landfills)
- Urban Sprawl
- Overuse of fertilizers
- Agriculture (Methane from livestock)

### Consequences

- Environmental Impacts <sup>(Increase temperature)</sup>
- Global warming, Acid Rain
- Economic Impacts
- Food Insecurity
- Loss of Biodiversity
- Increased Insurance Costs
- Ozone Depletion
- <sup>Air</sup> Water Pollution, Floods
- Social Impacts
- Health Issues
- <sup>Increase/Rise in</sup> Sea level
- Extreme weather events
- Loss of Biodiversity
- Damage to Infrastructure



# Outlines

## 1. Introduction

1.1 Hook

1.2 General Statement

1.3 Thesis statement

## 2. Main Body

### A. Causes of Climate Change

#### 2.1 Greenhouse Gas Emission

2.1.1 Carbon Dioxide ( $\text{CO}_2$ )

Sources (Fossil fuel combustion, Deforestation, Industries)

2.1.2 Methane ( $\text{CH}_4$ )

Sources (Agriculture, Landfills and wastes, fossil fuels extract)

2.1.3 Fluorinated Gases (CFCs, HCFCs)

Sources (Refrigerators, Air conditioners etc)

2.1.4 Nitrous oxide ( $\text{N}_2\text{O}$ ) ( $\text{NO}_x$ )

Sources (Synthetic fertilizers, Industrial activities, Biomass)

#### 2.2 Urbanization and Industrialization

2.2.1 Expansion of urban life (cities)

2.2.2 Increased energy demand

2.2.3 Industrial establishment and Emissions

2.2.4 Increased - waste production

#### 2.3 Agricultural Practices

2.3.1 Livestock Farming (methane emission)

2.3.2 Increased use of fertilizers ( $\text{NO}_x$ )

Conversion of forests into Agricultural land



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- 2.4 Transportation
  - 2.4.1 Emission from vehicles airplanes and ships
  - 2.4.2 Urban sprawl and Reliance on Private vehicle
  - 2.4.3 Electric vehicles
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- 2.5 Deforestation and Land use changes
  - 2.5.1 Agricultural expansion, Urbanization
  - 2.5.2 Impact on Carbondioxide sink and biodiversity
  - 2.5.3 Burning Practices
- 2.6 <sup>Increased</sup> Energy production and Consumption
  - 2.6.1 Dependence on fossil fuels
  - 2.6.2 Inefficient practices
  - 2.6.3 less adoption of renewable energy sources
- 2.7 <sup>Inefficient</sup> Waste Management System
  - 2.7.1 Emission of methane from landfills
  - 2.7.2 Dearth recycling activities, Inadequate management
  - 2.7.3 Open burning of waste

## B. Consequences of Climate Change

- 2.2 Environmental consequences
  - 2.2.1 Global Warming, Air pollution
  - 2.2.2 Sea level Rise
  - 2.2.3 Extreme Weather Events
  - 2.2.4 loss of Biodiversity
  - 2.2.5 Ocean Acidification
- 2.2 Social Consequences
  - 2.2.1 Population displacement
  - 2.2.2 Food and water insecurity
  - 2.2.3 Loss of livelihood
  - 2.2.4 Cultural impacts



2.3. Health Consequences

2.3.1 Spreading diseases

2.3.2 Health related illnesses

2.3.3 Malnutrition

2.3.4 Respiratory problems

2.4 Agriculture and Food Security

2.4.1 Changes in crop yield

2.4.2 Impact on food production

2.4.3 Scarcity and conflict over resources

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2.5 Loss of Biodiversity

2.5.1 Species Extinction

2.5.2 Ecosystem Disruption

2.5.3 Reduced agricultural productivity

2.6 Economic Impacts

2.6.1 Infrastructure damage (Rep

2.6.2 Agricultural Disruption

2.6.3 Increased insurance costs

2.6.4 Energy costs

Increased cleanup costs

Expenses for environmental restoration

Municipal costs

Loss of property value

Increased health care costs

Reduced tourism sector



# The Essay

Climate change represents one of the most significant and challenging issues facing humanity today. Defined as long term alteration in global or regional climate patterns, it primarily stems from an increase in greenhouse gases in the atmosphere.

This phenomenon not only affects global temperatures but also has far reaching impacts on ecosystems, weather patterns, and human societies. Addressing climate change is crucial because its effects can lead to severe disruptions in natural and human systems, including rising sea levels, more frequent and intense weather events, and widespread biodiversity loss.

The urgency of combating climate change is underscored by potential consequences that threaten both the environment and well-being. The primary cause including greenhouse gas emission from various sources, deforestation, industrialization, and unsustainable agricultural practices. These factors contribute to the warming



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of the planet and exacerbate environmental degradation. By understanding their interplay between these causes and consequences their effects, significant measures could be taken to address and mitigate the issue, leading to more significant solutions.