

Date: _____

Day: _____

Climate Change: Causes and Consequences:-

Brainstorming

Causes

Deforestation

over population

Anthropogenic causes

Industrialization and

Urbanization

Agricultural practices

Consequences

Environmental impacts

Economic impacts

Social & human impacts

Outlines

(1) Introduction

(a) Hook

(b) Background

(c) Thesis Statement: Climate change, largely caused by human-induced activities such as the excessive use of fossil fuels, deforestation, over population and unsustainable industrial practices, has far reaching environmental, economic and social consequences that threaten human security and global stability thereby necessitating urgent and coordinate action.

(2) Causes of climate change.

(a) Deforestation.

(i) → Deforestation is 11% of Global warming.

(ii) → Upto 58 thousand square mile of forest land lost each year.

Date: _____

Day: _____

(1) → loss of carbon sink.

(2.2) over population:

(a) → population growth and overconsumption.

(b) → Increased demand for resources.

(c) → Unsustainable consumption pattern.

(2.3) Agricultural practices:

(a) → Methane emissions from livestock.

(b) → Used of nitrogen based fertilizers.

(2.4) Industrialization and Urbanization -

(a) → Industrial waste and emissions

(b) → Heat islands in urban centers.

(2.5) More Quantity of Green House Gases.

(2.6) Natural Causes

(3) (a) → Volcanic eruptions.

(b) → Solar radiation variations.

(c) → Oceanic circulation.

(3) Consequences of climate change.

(3.1) Environmental impacts:-

(a) → Rising Global temperatures.

(b) → Melting Glaciers and polar ice caps.

(c) → Sea level rise and coastal erosion.

(d) → Frequency of extreme weather events

like floods, droughts, heatwaves.

(e) → loss of biodiversity and ecosystem disruption.

Date: _____

Day: _____

(3.2) Economic impacts:

- (a) Damage to infrastructure and property.
- (b) Decline in agricultural productivity.
- (c) Increased disaster management costs.
- (d) Threats to food security.

(3.3) Social and Human Impacts:-

- (a) Climate induced migration and displacement.
- (b) Health risks (heat stress etc).
- (c) Water scarcity and conflicts over resources.

(4) Climate Change: A Global and regional perspectives:

- (a) Disproportionate impact on developing countries.
- (b) Pakistan as a climate vulnerable state.

(5) International Response to Climate Change:

- (a) United Nations framework Convention on Climate Change (UNFCCC) in 1992.
- (b) Kyoto protocol in 2005.
- (c) Paris climate agreement in 2015.
- (d) Role of intergovernmental panel on climate change (IPCC) in 1988.

(6) Way forward: Mitigation and Adaptation Strategies:-

- (a) Afforestation and reforestation.
- (b) Climate resilient infrastructure.
- (c) Water conservation and management.
- (d) Sustainable agriculture.

(7) Conclusion:-

Date: _____

Day: _____

The Essay

The twenty-first century has witnessed a paradox of progress: while human advancement has reached unprecedented heights, the very foundations of life on earth are being destabilized by a rapidly changing climate. This highlights the contradiction between modern human development and environmental sustainability. Technological growth, industrial expansion often celebrated as symbols of success, have unintentionally disrupted the earth's natural systems. Climate change, predominantly driven by human activities such as deforestation, over population, agricultural practices, industrialization and urbanization, excessive quantity of green house gases, natural causes and unsustainable industrial practices has far reaching environmental, economic and social consequences that demand immediate and sustainable response at both national and international levels.