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# Climate change is a threat to humanity

## Outlines

### (I) Introduction

#### (i) Hook

(ii) **Thesis statement:** Climate change is triggering great destruction such as frequent natural disasters, water scarcity and spread of diseases which have negative implications on human health. It is essential to address these issues through adaptive strategies to minimize its implications.

### (II) How climate change is a threat to humanity

#### (i) Environmental impacts of climate change

##### (A) Global warming

Case-in-point: According to NASA, "The average global temperature has increased by a little more than 1° Celsius since 1880."

##### (B) Frequent natural disasters

##### (a) Floods, cyclone

##### (C) Glaciers melting

##### (D) Sea-level-rising



## (ii) Health risks of climate change

### (A) Extreme weather conditions

#### (a) Heat stroke, dehydration

Case-in-point: According to dawn news, "A severe heat waves in April-May 2024 affected 100 million people."

### (B) Alteration in rain pattern

#### (a) Spread of water borne diseases

### (C) Disruption in food chain

#### (a) Surge in hunger and malnutrition

### (D) Repercussions on mental health

## (iii) Social implications of climate change

### (A) Displacement of people

#### (a) Flood refugees

#### (b) conflicts over land and resources.

Case-in-point: UNICEF report, "The 2022 flood submerged one-third of the Pakistan, affected 33 million people half of whom were children."

### (B) Food security

### (C) Threat to basic human rights

#### (a) Education marginalization

#### (b) Social inequality



## (IV) Economic impacts of climate change

- (A) Damage to infrastructure and property
- (B) Loss of economic growth
- (C) Reduction in tourism
- (D) Increased cost of health care

## (III) Causes of climate change

- (A) Use of fossil fuels
- (B) Deforestation
- (C) Harmful industrial processes

## (IV) Way forward to climate change

- (A) Use of renewable energy sources
  - (a) promote electric vehicles
- (B) Improve cycling infrastructure
- (C) Improve industrial processes
  - (a) Implementations of standards
  - (b) Carbon tax
- (D) Climate Resilient structure

## (V) Conclusion



"The greatest threat to our planet is the belief that someone else will save it"

Robert Swan

During 1970, a major cyclone struck the Bangladesh. This cyclone caused a major destruction in human history. It was one of the deadliest natural disasters of human history. It claimed an estimated 500,000 lives of people. History has witnessed many such incidents where climate change caused destruction to lives and infrastructure.

Many countries around the world are facing the consequences of climate change, specially the developing countries and Pakistan is one of them. The main causes of climate changes are deforestation, green house gases, release of methane gas from live stock and urbanization. The above mentioned causes have significant environmental, economic and health impacts on human lives. Climate change is



triggering great destruction such as water scarcity, frequent natural disasters and damaging infrastructure. It is essential to address these issues through mitigation and adaptation strategies to minimize its impacts.

This essay defines the climate change in the beginning, afterwards it discusses the impacts of climate change and its causes. In the end it proposes some solution to overcome the negative impacts of climate change on humanity.

Climate change refers to a significant change in global temperature and weather pattern. Primarily it is caused by human activities such as burning of fossil fuels, deforestation and emission of gases from industries. This phenomenon has been occurring from millions of years. However it is accelerated with the beginning of industrial revolution in 1750. Its impacts intensified in the late 19<sup>th</sup> century or the beginning of 20<sup>th</sup> century.



The emission of carbon dioxide increased in these periods. The gases in the atmosphere trapped the heat from the sun. It results in the increase of temperature of earth. This phenomenon is continue till today.

Firstly, climate change has far-reaching and devastating impacts on the environment. The temperature of the Earth is increasing this phenomenon is known as global warming. This is occurring due to the emission of green house gases. According to NASA, "The average global temperature has increased by a little more than  $1^{\circ}$  celcius since 1880." The rise in temperature resulted in glaciers melting. Similarly, the sea level is also rising due to higher temperature. Oceans absorb heat from surroundings. This causes the water to expand, leading to rise in sea level. In the same manner natural disasters are also occurring such as floods and cyclone. The weather



pattern is changing all over the world. These changing weather patterns are becoming the cause of wildfires, drought and hurricanes. According to UN source, "The number of weather related disasters has increased by 15% since the 1980s, with flood and storms being the most common." Therefore, the climate change has worst impacts on the environment.

Secondly, climate change has adverse effects on human health. Extreme weather conditions such as heat waves can lead to severe health conditions in people, including dehydration, heat exhaustion and heat stroke. Its implications are from mild discomfort to serious life threatening illness. Children, elderly people and individuals with pre medical conditions are most vulnerable to these waves. According to dawn news, "A severe heat waves in April-May 2024 affected 100 million people, with temperature reaching 48°C in some areas." Likewise, climate change is altering the <sup>rain</sup> weather pattern. It is



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increasing the risk of water borne diseases.

The growing mosquitoes are spreading the disease like Malaria, and dengue fever. These water borne diseases may have long term consequences like kidney disease, liver disease

and neurological damage. Furthermore, climate

change has far-reaching consequences for crops. Contaminating atmosphere and altered

precipitation level is disturbing the crops

production. Bad air quality and unbearable weather are increasing the risk of livestock

deaths. Such disruption to food chain can lead to malnutrition and hunger among

masses. Also the climate change is facilitating the spread of diseases across the continents and

borders. The shifting environmental conditions enables disease carrying animals to spread the

infection across other territories. Moreover,

climate change has detrimental repercussions on

mental ~~well~~<sup>being</sup> of people. It creates stress,

anxiety and trauma particularly in people

experiencing displacement and loss of livelihood.

This is how climate change is negatively

impacting the well being of people.



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Thirdly, climate change has significant social repercussions. Natural calamities due to climate change displace the people from their places. Their migration becomes a challenge for government. Flood migrants need proper food, shelter and health care facilities. They are forced to leave their belongings and livelihood. They often suffer to adapt themselves in new environment and culture.

They might face social barriers and language issues. According to UNICEF report, "The 2022 flood submerged one-third of the Pakistan, affected 33 million people half of whom were children." Similarly, food security is also an issue arising after natural disasters. Crops and livestock destroyed during floods. This increases the food prices. Resultantly it becomes difficult for people to meet their needs. This scarcity creates social unrest among masses. In the same manner, refugees confront challenges from local residents due to occupying their land. Also students drop out of school due to financial constraints and poverty. They are unable



to meet their expenses of education.

These catastrophes may delay or prolong their education. It poses significant challenge for households with low income and minorities. It can take long time to stabilize again. Moreover climate change becomes the reason to deprive people from their basic rights. It undermines their right to a safe and healthy environment.

Fourthly, climate change is a threat for economic growth and development. Due to climate change many natural disasters take place. These calamities damage the infrastructure and disrupt the industries. Road, bridges and power plant are being damaged or disrupted. people can't get the things they need due to these barriers. They also face problems to access emergency services such as hospitals. It can put their lives in danger.

According to National Disaster Management Authority Pakistan, "Floods in 2022 damaged over 12,000 km roads and 230 bridges."



Resultantly the damage infrastructure affects the country's Gross Domestic Product (GDP). It reduces the economic growth of the country. The resources are diverted to address the climate-related issues. The foreign direct investment (FDI) reduces due to poor infrastructure. It takes time and money to build the roads and bridges.

According to State Bank, "The estimated economic loss was above \$15.2 million in 2022 floods in Pakistan". In addition to these,

Climate change impacts the tourism industry.

Tourism is decreasing due to uncertain weather.

Tourists always prefer a sustainable and eco-friendly destination with good roads and infrastructure facilities. Unfortunately in

Pakistan due to floods, land sliding and poor condition of roads, this industry is

suffering a lot. It impacts our economy.

Furthermore due to climate change the cost of health care facilities is also increasing.

All these factors are weakening our economy.



The above paragraphs are pertaining light on the implications of climate change. The next paragraph will explain the causes of climate change.

First of all the extraction and use of fossil fuels is a significant contributor to climate change. Fossil fuels are the major source of green house gas emission. Their burning emits carbon dioxide, methane and nitrous oxide to the atmosphere. The use of non renewable energy sources is increasing.

According to International Energy Agency, "Fossil fuels accounted for approximately 82% of the world's energy consumption." Likewise deforestation has a profound impact on climate change. The clearance of forests, mainly for urbanization, agriculture and logging releases tremendous amount of carbon into atmosphere. This leads to the rise of temperature. It has severe consequences on the health of people. The industrial process, in the same way, are a major driver for climate change.



These processes release harmful gases such as oxides of sulphur, carbon and nitrogen to the atmosphere without filtering them. These gases become the cause of rise in global temperature. So, these processes are the main culprits of climate change.

The next paragraphs will propose some solution to overcome the negative impacts of climate change.

In the first place, we should focus on renewable energy sources such as solar, wind and hydro power plants. These sources emit significantly less greenhouse gases as compared to fossil fuels. There is a need to reduce the consumption of fossil fuels. Solar and wind power have low operating costs compared to other non-renewable sources. They require very little <sup>water</sup> to operate. This will ultimately reduce our dependency on imported fuels. According to the Intergovernmental Panel on Climate Change, "A transition to 100% renewable energy by 2050 could avoid up to 3.6°C of warming and reduce energy-related CO<sub>2</sub> emissions by 78%."



Additionally electric vehicles (EV) are a crucial solution to climate change. With the use of electric vehicles ~~use~~ the dependency on non-renewable sources can be decreased significantly. The government should <sup>imposed</sup> ~~promote~~ congestion charges to reduce the use of private vehicles. This will ultimately increase the use of public transportation. According to United States Environment protection Agency (EPA), "Public transportation can reduce air pollution by 95%." Similarly cycling infrastructure is also a significant contributor in reducing climate pollution. The separate cycling lanes on the roads will encourage the people to use cycles. Investment in cycling infrastructure, public campaigns about its benefits, and by providing secure parking we can encourage this side.

On the other hand, reduction in industrial emissions can significantly contribute to the green environment. The industries must implement the **3R strategy** which is Reduce, Reuse and Recycle the waste material. Also workers, Government and Industries



must collaborate together and share their experience to mitigate the negative impacts of industrial emissions. Implementing **Carbon tax** on industries can serve as an effective mean to reduce carbon emission. This will encourage companies to use eco-friendly processes. Similarly the ban on the production and use of Chloro fluoro carbons (CFCs) will be helpful to protect the ozone layer and reduce the harmful effects on environment.

In the same manner, the climate resilient structure can be helpful in reducing the losses during natural disasters. These structures are designed to withstand the extreme weather and minimizing the risk of collapse. Furthermore Government <sup>should</sup> strictly implement the laws and international standards to address the climate issues and reduce its impacts on human beings. Also legal action must be taken against those who will violates these laws and regulations. The collaboration between government and local bodies is necessary to ensure the compliances related



to environment. Also Pakistan must meet its target to generate 30% of its electricity need from renewable sources by 2030.

To conclude, Climate change is posing significant threat to our natural resources which are ultimately impacting the lives of human beings. Climate change has negative implication on the health of living beings. There is a need to address the challenges of climate change in order to ensure the well-being of people. Implementation of sustainable and green resources can ensure the safety of masses. It is never too late to pledge for a new change to create a new tomorrow. Where there is a will there is always a way, regardless of the obstacles and hindrances we can definitely achieve our goals of sustainable environment.