

# **CLIMATE CHANGE AND NATURAL DISASTERS IN PAKISTAN**

## **OUTLINE:**

### **PARAGRAPH 1:**

- Types of climate change
- Natural VS human activities

### **PARAGRAPH 2:**

- Volcanic eruptions
- Effects of ashes of volcano
- Effects of gases released from volcano
- Effect on Water due to volcano

### **PARAGRAPH 3:**

- Human Activities
- Emission of Green house gases
- Formation of blanket in atmosphere

### **PARAGRAPH 4:**

- Deforestation
- Various purposes for cutting down the forests
- Effects of deforestation

### **PARAGRAPH 5:**

- Pakistan produces very less amount of green house gases
- But still faces severe heat waves and some stats

## **PARAGRAPH 6:**

- **Extreme weather condition**
- **Floods due to heavy monsoons and some related stats**

## **PARAGRAPH 7:**

- **Pakistan an agricultural country**
- **Effect of climate change on crops in coming years**
- **Related stats**

## **PARAGRAPH 8 and 9:**

- **NCCP and Ministry of climate change formed by the government**
- **Individual steps that can help prevent climate change**

## **INTRODUCTION:**

This essay includes what is climate change and natural disaster and how they are effecting Pakistan and how the reasons such as burning fossil fuels, cutting down forests and farming livestock are influencing the climate and cause it to change and how this leads to natural disaster. And what effects do these disasters bring in Pakistan. And what are the measurements to stop climate change and what steps should be taken by the government and also at the individual level to reduce and diminish changes in the climate.

## **Thesis Statement:**

Hence we will be discussing causes, effects and solutions of climate change and natural disasters and policies that can help us against them.

Climate change of a region involves the long-term changes in weather and temperature of that particular region. Climate change can occur both by natural causes such as changes in sun's activity and by volcanic eruptions and also due to humans.

Volcanic eruption is a type of natural phenomena that causes climate change. After the volcanic eruptions most of the ashes are removed from the atmosphere within few days or weeks and has a miniature effect on the climate but the gases that are release after the volcanic eruption

are more dangerous and remains in the atmosphere for a very long period of time and effects the climate very severely. Much of the drinking water around the volcano is wasted due to the contaminations fallen into it .

But the natural phenomena that causes climate change are very small and does not effect the climate as badly as human activities are effecting the climate.

Human activities such as coal burning and cutting down of trees has greatly effected climate change since the 19<sup>th</sup> century. Burning of these fossil fuels releases gases including carbon monoxide and methane, both these gases are also called green house gases. When these gases rise up in the atmosphere they form a blanket of gases around the earth surface and don't allow the sun's radiations to exit from the Earth resulting in the global warming. The average Earth temperature is **1.1 degree Celsius** warmer than it was back in the **late 1800's**.

Another factor that contributes to climate change is deforestation i.e, cutting down of forests for the sake of development of societies and woods for fire and various purpose. Another reason of climate change is livestock. The feed production of these livestock utilizes many machines and industries which releases their polluted gases into the air causing air pollution and many industries releases their chemicals into rivers and seas causing water pollution and both these pollution affects the climate and causes it to change.

Deforestation effects the environment badly and causes lack of oxygen and excess of carbon dioxide because trees are the only natural suppliers of oxygen and if deforestation occurs oxygen level will fall and carbon dioxide levels will increase.

Pakistan **releases less than 1%** of the total green house gases despite this Pakistan faces severe heat waves due to the emission of green house gases from different countries of the world. A severe heat wave was recorded in Pakistan in May 2022 and the recorded temperature was **51 degree Celsius**. Green house gases causes global warming and due to it many glaciers melt resulting in rise in sea water and wastage of drinking water.

Extreme weather such as monsoons and cyclones are very much likely to occur in Pakistan due to increased temperature in the atmosphere. Due to these heavy monsoon rainfall, floods are likely to occur causing death of hundreds of people. In **2022** the flood effected approximately **33 million people** and these floods were due to the melting of glaciers , between **1998 to 2018** approximately Pakistan has faced **150** extreme weather events. Similarly, according to NIOC, the water level of coast of Karachi rises by 1mm per year since 1856-2000. According to an NGO head approximately, three million acres of land on which various villages were settled was submerged into coastal districts of **Thatta, Badin and Sajjalwal** in the time period of just 40 years.

Pakistan's economy largely depend upon crops like wheat and rice but the production of these crops is likely to be effected very much in coming years due to climate change. The 2022 floods that were due to the climate change destroyed about **50% of the crops** yield that could have been led to food shortages. Another effect of climate change is migration of people due to extreme weather, in the past few years many rural communities have migrated to different large cities. Approximately about **700,000** people on average are migrating to urban areas per year and **about 20 million people** have been migrated from rural to urban areas just because of extreme weather **since 2010**.

The NCCP framed by the government of Pakistan identified the major climate change threats, some of them are increase in the frequency and intensity of extreme weather events, increase in the siltation of major dams due to the intensive floods, further deforestation, threat to coastal areas due to expected high water levels in the future and health concerns and climate change induced migration. Various programs on adapting to the climate change has been launched by the ministry of climate change.

At individual level we should plant more and more trees because Pakistan has less than 6% of the total forest area. And by restoring forest we will be able to get cleaner and fresher environment free from diseases. We should travel in bus rather in separate vehicles so less fuel is burnt and less green house gases are releases which in turn will produce less global warming. We should transform from non-friendly environment vehicles to the hybrid or environment - friendly vehicles. In this we will be able to reduce the harmful effects of the climate change and eventually the natural disasters occurring due to it.

## CONCLUSION:

Climate change and natural disasters are related and the reasons behind climate change are deforestation by which floods occur and we deprive of clean air, industries release harmful gases which trap the sun radiations and increase the temperature of the Earth also known as global warming. The effects of climate change includes natural disasters such as floods, it also causes effects on the yield production of the crops, melting of the glaciers which causes the wastage of drinkable water and also causes increase in sea-water levels which submerged many villages and the migration of people due to extreme level. Government has created a committee(NCCP) and ministry of climate change to come up with proposals to tackle climate change . At individual level we must also plant more and more trees and use public transport instead of individual cars. By taking the above measures we can reduce climate change and the effects caused by it.

**Method** of writing **conclusion** is **call to action** while **introduction** is **classical narrative**.