

# Climate Change: Causes and Consequences

## Introduction:

On the day of April 07, 2012, an Avalanche smashed, burying 135 soldiers and civilians in it in Siachen - the world highest battlefield. Despite efforts made many persons are still missing. This day of misfortune reminds the phenomenon of climate change. Climate change is long-term change in the average weather patterns that have come to define the earth's local, regional and global climates. It is not discussion topic issue of this topic that is devastating the world irrespective of ethnicity and race. The contemporary world has witnessed consistent climate change. Climate change is mainly driven by human activities such as overpopulation, deforesting, burning of fossil fuel that ultimately result in rising of sea, health risks, loss of biodiversity and extreme weather, however, it can be curbed by taking some drastic measures.

To begin with, Overpopulation is a direct cause of climate change by creating gap between quantities of resources and consumer number. According to 2023

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census, the population of Pakistan is nearly 240 Million while it was about 208 Million in last one. Similarly, the population of Pakistan world is expected to increase to 9 Billion by 2050. As the population grows the demand for land, energy and food is increased. As a result, people destroy natural resources to fulfil their needs which ultimately leads towards pollution and emission of gases. Hence increased in population is a major threat to climate change.

Apart from overpopulation cutting of trees for land is another cause of climate change. Trees act as lungs by absorbing carbon dioxide and releasing oxygen. But unfortunately these are cutting down for sake of housing and economic purpose. Deforestation is common in both developing and developed countries. For instance, Amazon the world largest forest is being cleared for cattle grazing and logging. Experts warn that if it reaches at 20-25% then it will be irreversible. As a result excessive amount of  $\text{CO}_2$  is sent to atmosphere which

traps heat and result in global warming. In Pakistan the situation is similar, every year widely large of forests are destroyed particularly in Northern areas which ultimately leads toward land erosion and flooding as seen in the different areas of country. In short, trees act as natural sink of  $\text{CO}_2$  their destruction leads towards climate change.

Moving forward, burning of fossil fuels such as coal, oil and natural gas is another major cause of climate change. These fossil fuels are extensively used in power generation and transport sectors. As a result, these fossil fuels emit carbon dioxide ( $\text{CO}_2$ ), major greenhouse gas, methane ( $\text{CH}_4$ ), Nitrous oxide ( $\text{N}_2\text{O}$ ). Among fossil fuel coal alone contributes 40% of carbon emission ( $\text{CO}_2$ ). For instance, China emits 30-36% of coal through exports sector and power generation. Moreover, in Pakistan, the transport sector emits 42% of the total emission of carbon. This indicates that situation is more worse in developing countries which ultimately

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leads towards accumulation of green house gasses in environment. These gasses trap heat and results in global warming.

Livestock and Agriculture sectors are also responsible for climate change by emitting harmful gasses. Livestock such as cow and buffalo release methane during digestion which is 28 times more potent than carbon dioxide. According to Food and Agriculture Organization (FAO) Livestock alone accounts for considerable amount of global greenhouse gas emission. Moreover, widely spread of chemicals and fertilizers also contributes in emission of Nitrogen's oxides. Furthermore, deep ploughing of land and burning of residues of crops pollute the air. For instance, in dry regions of Pakistan such as Thar Desert, poor farming techniques and land degradation create dust storms. These storms not only pollute the air but also reduce the land's ability to absorb carbon. Hence, these practices show that unsustainable agriculture and ~~livestock~~ accelerates climate change.