

# Climate Change, Causes, Effects, Rem

## Outlines:-

Introduction

## Climate Change - An Overview

### Why Climate Change is happening?

- emission of carbon dioxide
- use of nuclear energy
- chemicals usage in agriculture
- Rise in population
- Increase in deforestation
- growth of urban areas

## Effects of Climate Change

- increase in floods
- melting of polar ice
- rising temperature
- increase in rate of migration
- prevailing diseases worldwide
- disappearance of species
- loss of economy
- encroachment of coastal areas
- decline in agricultural production

## Measurements to counter effects:-

- reforestation on deforested areas
- use of sustainability
- technology transfer
- energy conservation
- reduction of greenhouse gases

## Conclusion

In 50 years planet will change completely. If all life forms are removed from earth, what will happen? Imagination could be frightful. These questions are arising just because of human activity of using too much fossil fuels from mobile vehicles to electric energy in outlet is affecting our planet. Climate change resulting in negative effects due to human activities as well as natural phenomena. Climate change is an alteration in the pattern of climate due to a combination of natural and human induced causes. However, climate mitigation is possible by meaningful adaptation to permanently eliminate or reduce the long-term risks.

'Climate Change' refers to statistical description of weather. Long-term shifts in temperature and weather patterns are called climate change. According to Australian Academy of Science, climate change is the statistical properties of climate system that persists for several decades or longer, usually at least 30 years. So, the climate change is increasing in temperature and average weather conditions.

There are numerous factors which are actively warming climate among them  $\text{CO}_2$  is major cause.  $\text{CO}_2$  produced by burning fossil fuels. The excess of  $\text{CO}_2$  not only pollute the environment but endanger our lives. According to UN report of 2023, it is expected that, by 2100, the global average air temperature over the Earth's surface will warm by around  $4^\circ\text{C}$  above. If emission of  $\text{CO}_2$  reduced the chance will decrease by  $2^\circ\text{C}$ . Thus, the more use of  $\text{CO}_2$  will results into average temperature rise as well as pollution.

Nuclear radiation is one of contributors into climate change. Its use either be for defensive purpose as well as energy. There are seven declared nuclear states in the world which with the passage of time increasing stockpiles. Nuclear energy causing climate change problem.

The another major contributor is use of insecticides, lubricants and nitrogen based fertilizers. Farmers across the world use pesticides which not only pollute the environment but left over to produce greenhouse gases which added to climate effects.

The more human go for production, the more use of these detergents. So, the agricultural chemicals causes the climate change.

The next one is is deforestation.

It has increased on alarming conditions.

The set standards by UN for each country to have its minimum land area almost 25% being allotted to forests is not yet achieved by single nation.

As per report of WHO, 80-90% floods due to deforestation. Cutting trees is minimizing natural resources which pre caused the climate change.

In last but not least, the increase in population has also caused increase in temperature or climate pattern.

Human takes oxygen ( $O_2$ ) and releases carbon dioxide ( $CO_2$ ). So the more number of people will be more release in carbon dioxide. As per the data of Human Population Index by WHO, 7.8 billion people living today while a half century the population was less than half. So, ultimately it has a deep effect on climate change.

And ~~lastly~~, more urban areas developed due to over population. And other relating cause of over population is growth of urban areas.

More urban areas results in more industries, transport system and land shortage. These factors contribute to environmental pollution which leads to change in climate patterns. Therefore, Urban are also a major cause of climate change.

There are some serious threats being posed to humanity by climate change, among them is flood. Increase in temperature causes the rise in surface of water in seas or oceans. This increase in sea level causes floods. According to BBC report world receives floods on yearly basis which cost billions of dollars in economy and thousands of precious human lives. The 2022 floods affected in Pakistan killed 1739 people and ~~caused~~<sup>effect</sup> caused 3.2 trillion of damage. Increase in change of climate patterns also increases this danger.

The next ~~cause~~<sup>effect</sup> of global warming is fast melting of polar ice, glaciers and ice-sheets. Presence of ice is necessary to keep our world temperature normal. In last three decades, there is a rapid in its melting due to climate change. According to US National ice center and CNN report in May 2021 a huge block of ice

of 4000+ km area has been broken off from western Antarctica into the Weddell Sea, becoming the largest iceberg. Although the formation is part of a natural process but as per reports it has been accelerated by warming air due to human-caused climate change.

Climate change is resulting into harsh weather conditions. The previous few years have been hottest on record. For example, BBC reports Turkey, Australia experienced severe wildfires in dense forests which has caused highly damages. At low level, Pakistan has also faced fire in Margalla hills Islamabad. Climate Change has danger wildlife also due to extreme conditions.

There is an increase in forced migration due to unbearable climate conditions.

People are migrating due to volcanoes, floods, hurricanes and catastrophe rains.

People changing their locations frequently is again causing many climate problems.

As per economist report, there is a huge loss of economy due to migration. So, Climate change is causing

economy threat due to migration.

There is an increase in range of diseases. Diseases like skin and eye diseases are most common now days. Ozone depletion has allowed ultraviolet rays which is contributing into cancer. Moreover, the climate change causes air pollution which directly impact on human health.

Climate change is not only effecting humans but other living things also. Many plants and species are now nowhere. It is because of sudden climate and harsh climate condition which was not suited them. According to IUCN Red List estimates that a quarter of mammals is at risk of extinction. Climate threats are effect controlling even lives of species.

Another big problem is loss of economy due to climate threats. When severe hurricanes, floods and earthquakes appear, they resulted in catastrophe. Infrastructure damage demands more budget and that's why developing countries like Pakistan cannot pay attention in other global production. Economy is directly linked to these catastrophe.

People migrate to good environmental areas like coastal areas. Where more people come, more shopkeepers and sellers also come there. In result, congested environment and encroachment on coastal areas. That's why encroached coastal areas cause disturbance to living things in water.

Agriculture is one of main fields directly hit by climate change which has resulted into decline in agricultural production. No rain for long brings droughts while sometime heavy rains causes floods. All these have caused to decline in production of food and other necessary items.

There are some suggestions to counter these threats. Firstly, there is a need for mass plantation. If reforestation should take place, then threat of increase of  $CO_2$  can be decrease. The plantation drive is needed for all over the world. For example China, Iran, Turkey has started project of 10 billion trees. This should be on global level.

Sustainable products and reusable products should be encouraged. Implementation on high level and awareness in people will reduce threats. Energy saving developments should be more focused.

Technology should be used to combat emission of CO<sub>2</sub>. Ban the construction of new conventional coal-fired power plants to adoption of carbon dioxide. In this way CO<sub>2</sub> can be reduced.

Energy conservation should be encouraged. Bicycle travel will not only improve air quality as well as health. Japanese uses bicycle to reach their workplaces and they are most healthiest and active mind people.

Strengthen the regional greenhouse gas initiative which will limit pollution from transport and powerplants. High speed rail lines can minimize the congested areas risks. These adaptation from high to low level world with growing pace is facing some severe climate change issues. With each year, additions of carbon

10

dioxide and narrowing down the ways to counter it are taking us nearer to disaster. The several factors which are negatively contributing has affected it a lot. Many of us will not be in future but our actions today affect the people who will present there. Therefore, saving future has to begin now rather than later. With the help of strong commitment by not only individual but generally by whole world and especially by those countries which are responsible for more fossil fuels and carbon emission.