

Climate Change is the Biggest Issue Confronted By the World

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(CPEC, Alternative Energy Promotion Centre in Nepal)

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(COP 28) (Montreal Protocol)

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(Green Climate Fund's Project in Ethiopia)
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(1 Billion Tree Tsunami Project in KP)
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- (vi). Investing in green technologies

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"Climate change is no longer some far off problem; it is happening here, it is happening now."

(Barack Obama)

Climate change is one of the biggest problem the whole world is facing. It has been one of the most talked issue particularly since the start of twenty-first century. And things are likely to worsen in the coming decades. A meticulous analysis revealed that right now climate change is the most serious issue confronted by the world. Increased intensity of extreme weather events, rising average global temperature, melting of glaciers and ice caps, accelerating loss of biodiversity, and increasing food security and economic disruptions are some of the facts that revealed the intensity of climate change in the world. There are numbers of factors

responsible for the rise of climate change issue. The world has tried some measures but the genie is still out of bottle. Keeping the current situation in mind, it is the dire need of the hour to implement some practicable measures and policies.

Climate change can be defined in number of ways. As per United Nations, "Climate change refers to long-term shifts in temperature and weather-patterns. Such shifts can be natural, due to changes in the sun's activity, or large volcanic eruption." According to NASA, it is defined as, "change in average conditions, such as temperature and rainfall in a region over long period of time." The changes in precipitation, wind patterns, and rise in temperature, all happens due to climate change. Since the industrial and agricultural revolution has been started in the 18th century, the changes in temperature began. These revolutions provided the ways for economic

stability, but it also became the threat to society.

Having discussed, in detail, the definition of climate change and its evolution, it is the time to substantiate with arguments that climate change is the biggest issue confronted by the world.

Firstly, the world is facing extreme weather events such as floods, storms, droughts, and tsunamis. The rise in global average temperature exacerbates these events. California faced the record-shattering storm recently.

Similarly, some parts of Africa are facing sever droughts that broke the record of last 40 years. Most importantly, Pakistan is the major effectee of floods, facing almost every year. The recent 2022 floods in Pakistan caused significant damage in the country.

The governments of developing countries are unable to cop these issues. Thus, it clearly depicts that right now climate change is

the biggest issue confronted by the whole world.

Secondly, there is a clear rise in the melting of glaciers and ice caps in the whole world. Due to rise in average temperature of the world, the glaciers of north regions are melting and the world is facing major floods. As per **ICIMOD**, the Hindu Kush Himalayan region, would lose one-third of its glaciers by 2100. Moreover, the Arctic sea is disappearing. This would cause the shortage of fresh water in the world as well as causing major devastated events like floods. And the whole world is still unable to manage this issue and all countries are facing its consequences in the shape of infrastructure damage and loss of human lives.

Thirdly, the rise in global average temperature is the fact that no one can deny it. The countries signed an agreement

Montreal Protocol in 2015, in

which almost 200 countries pledged to try to keep global warming to 1.5°C .

But the **IPCC** claimed that the greenhouse gases are still rising quickly and the world is likely to warm beyond 1.5°C .

In addition, over the last decade, the world was on average around 1.2°C warmer than the late 19th century. The temperature of earth is rising 0.2°C per year. This is an alarming situation for the whole world and planet earth is already facing its consequences.

Similarly, the crop yield of almost every country is reducing quickly, leading to food insecurity in the world.

Food production is started to come under strain. However, the world is still producing enough food, thanks to the improvements in farming and crop technologies, but climate change ~~has~~ slowed the growth rate of

crops. Due to climate change, the agricultural practices are facing severe crisis, such as, shortage of water, soil salinity, soil infertility, and shifts in rainfall. All these collectively effected the overall agricultural system, and in result, both the livestock and crop yield are experiencing losses.

In addition, climate change is becoming the major reason of economic losses and disruptions in the world. The extreme weather events damaged the infrastructure, roads, motorways, houses, and other shelters. These events also contributed to job displacement and migration of effected people. In result, the areas where people usually migrated also face the shortage of resources. Due to climate change, countries are unable to produce surplus crops and this badly impacts their exports. So, this lead to severe economic disruptions in any country.

Furthermore, loss of biodiversity

is another fact which highlights that climate change is the biggest problem confronted by the world. Shifts in temperature and weather patterns altered the ecosystem, affecting the habitat, because species adapted to certain climate conditions face challenges to survive in changing conditions. There are many species have specific temperature ranges within which they live. But due to rise in global temperature, those species find it difficult to migrate to cooler areas, leading to extinction of those animals. To add more, increased level of carbon dioxide not only rise the temperature but also cause ocean acidification, affecting the marine ecosystem.

Likewise, the shortage of water supply and reduced crop yields is also a significant fact, highlighting climate change as the biggest issue of the world. Asian countries are the most affected of climate change, such as Pakistan is among the top ten water scarce countries. Irregular weather

patterns and shifts in rainfall not only disturbing the world's water cycle but also contributing to reduce food production. Warmer temperatures and ~~and~~ changes in humidity are creating conditions favorable for pests and diseases. And the crops that were previously less susceptible may now face increased challenges.

Lastly, climate change poses significant threat to global stability and exacerbates humanitarian crisis in the world.

Intense extreme weather events lead to destruction of infrastructure, causing instability in affected regions. Similarly, shortage of water lead to conflicts and tensions, destabilizing geopolitical situation. As, every country is trying to store more water for future use. Pak-India water crisis is a prominent example of this situation.

In addition, climate change also lead to health issues, vector-borne, as well as water-borne diseases, in result strain on healthcare system of those regions. In the same way, migration of

people due to these events cause the conflicts in receiving areas on resource-sharing. Hence, world is at the brink of catastrophe due to climate change.

Having discussed, in detail, the facts that prove that climate change is the biggest issue confronted by the world, now it is imperative to shed light on the factors contributed to this devastating situation. Firstly, burning of fossil fuels is the most prominent cause of climate change. During the industrial revolution, people started to burning coal, oil, and other fossils to fuel factories, which added more greenhouse gases. Ever since, human activities are continuously warming the planet. More than 90 percent of scientists who study Earth's climate change agree that the planet is warming and human beings are the primary cause.

Secondly, cutting down rainforests and vegetative areas are another major reasons

of climate change. Due to deforestation, the ability of trees to suck harmful gases is declined. It is said to be that trees are natural sinkers. When there is less trees in an area, the amount of carbon dioxide automatically increased. And carbon dioxide is the most harmful gas for the atmosphere. Thus, higher the deforestation, higher the carbon dioxide and other greenhouse gases in the atmosphere. In result, the rise in temperature happens.

Thirdly, more the industries in the world, more greenhouse gases in the atmosphere. For hundreds of years, people have shaped the world around them for their benefit.

The rapid increase in industries for production of cheap goods and to enhance exports of a country, lead to destroying the environment.

World is in race to enhance their economies and every country is trying to become the leading economy but in this competition, they badly damaged the environment. Since the

industrial revolution, the amount of carbon dioxide in the atmosphere has risen by 50 percent.

Lastly, livestock farming is major contributor to economy of country. Besides, it is also contributing in climate change.

Livestock produce methane which is several times greater than CO_2 . Moreover, to cultivate crops for animals, large areas of forests are often cleared, lead to deforestation. Similarly, the usage of chemical fertilizers to enhance the crop yield is also a significant cause of climate change. Fertilizers contain nitrogen, another devastated gas for the atmosphere. A famous illustration, first published in 1998, called the **Hockey-stick graph** shows how temperature of the world remained entirely flat for centuries before agricultural and industrial revolution.

After an overview of the causes of climate change, it is pertinent to discuss some practicable and ameliorative measure that can mitigate the signs of climate change from

the world. To start with, promotion of renewable energy policies for sustainable development.

World should promote projects like China-Pakistan Economic Corridor (CPEC) to shift

focus towards renewable energy. Another

case study is of Alternative Energy Promotion

Centre in Nepal which enhances the use of

solar energy in remote areas. Earlier the

world ~~was~~ shifts to renewable energy, better

it would be for environment.

Moreover, international collaboration and funding is the dire need of the hour to mitigate the damages of climate change.

COP 28, held at Dubai, in 2023, is the biggest step towards climate change. In

Cop 28, countries decided to provide funds to under-developed countries, so they could

fight against the catastrophe. Similarly, the

Net zero Emission, decided in Montreal

Protocol in 2015, ~~is~~ ^{should} also achieve earlier. How

quickly nations reach net zero will determine

how hot the planet ultimately becomes. The U.S and EU have set goals of net zero emission by 2050. China and India have set goal for reaching net zero emissions by 2060 and 2070, respectively. But countries should move faster and developed countries should reach by 2040.

Likewise, every country should support and scale-up community based programs.

The Green Climate Fund's Project in Ethiopia and Senegal focus on community led initiatives in affected regions to support the affected families. Governments of each country should take lessons from these kind of projects and initiate similar projects in most vulnerable regions. These steps would address vulnerabilities of families in disturbed areas.

To add more, world should launch large scale projects of afforestation and re-forestation. Because, the more the forests would

be, the less would be amount of carbon dioxide in the atmosphere. The projects like **Billion Tree Tsunami Project** in the KP province of Pakistan to plant 1 Billion trees to combat deforestation and its associated environmental impacts. All countries should initiate afforestation to reduce the amount of carbon dioxide in the atmosphere.

In addition, promotion of public transportation usage and green spaces in every country is crucial for alleviating greenhouse gases. Public transportation systems, such as buses, trams, and subways, are more-efficient per passenger than individual cars. Green spaces such as green parks, botanical gardens, and community gardens, with plants and trees act as carbon sinkers. By encouraging public transport usage and green spaces, countries can reduce greenhouse gas emissions.

Lastly, investing in green technologies is a crucial strategy for mitigating climate

change and developing sustainable, and low-carbon future. Green technologies, such as, solar and wind power, produce electricity with low carbon emissions. Investing in renewable energy sources helps in transition away from polluting fossil fuels. Thus, the world should adapt measures to reduce carbon emissions in the environment.

To sum up, Climate change is the biggest issue threaten the whole world. Every single country is facing its consequences. Burning of fossil fuels, rapid industrialization, livestock farming, usage of nitrogen-containing fertilizers, and deforestation are the major causes of climate change. World should adapt immediate measures to decline the effects of climate change. It is the need of the hour to shift from non-renewable energy sources to renewable sources. It is high time the people of world and governments realized that they just cannot ignore this catastrophe and focus on other things. The only way, world

can take is to reduce the carbon emissions from the environment by implementing some practicable measures. The earlier it is realized, the better it is.
