

Topic:

Climate Change and Our

Preparation to Counter it

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Essay

Owing to its blue and green outlook, mother Earth is distinguished from all other planets in the space. Presence of favourable environmental conditions makes earth the only planet that supports life. However, the future of this blue and green happy planet seems bleak. After the turn of 19th century, human race's craving for industrialization and

making money started deteriorating the condition of the planet and led to a phenomenon named 'Climate Change'.

As defined by the United Nations, climate change is long-term shifts in the temperatures and climatic conditions. These changes may be natural, such as through variations in the solar cycle, but, since the 1800's, anthropogenic activities have been the main driver of climate change. Excessive burning of fossil fuel has added to the ^{increased} concentration of greenhouse gases in the atmosphere.

Clearing forests for commercial use has also resulted in the pollution of atmosphere.

Furthermore, the depleting ozone layer and direct exposure of Ultra violet rays have cause direct impact on warming of ^{the} planet.

Climate Change is not a myth, but a real threat. Its implications are evident in the nature. Sudden melting of glaciers and ice caps, and rise in sea levels are the proofs that our world is going through the process of climate change. In this

regard, several regions of the world have also seen change in their weather patterns and climatic conditions. In the words of the former President of the US, Barack Obama, "We are the first generation to feel the effect of climate change and the last generation who could do something about it." In order to counter the negative effects of climate change, Pakistan is taking certain steps. Pakistan - the ^{one of} worst affected of the climate change - has ensured its representation in international forums related to climate and ^{also} ratified Paris Climate Agreement. It has also devised its Climate change policy. The world is also serious about the concerns Climate change has raised. Several mass awareness campaigns have been carried out ~~to~~ on international level. States have also entered into a range of agreements in this regard. Moreover, funds have been allocated to avert the damages caused by the climate change. It is ^{an} unquestionable ^{fact} that

Climate change is an unavoidable matter of the 21st century that is driving earth towards its death. In order to mitigate its adverse effects, world needs to join hands and take measures in the ^{right} direction before it is too late.

To begin with the causes of climate change, it is the excessive burning of fossil fuels that tops the list. Burning of fossil fuels emits carbon dioxide, methane, nitrogen oxides and sulphur dioxides; these hazardous gases are called greenhouse gases. Concentration of these greenhouse gases has proved to be detrimental for the environment. China, US and India are the top three emitters of these greenhouse gases. In this way, burning of fossil fuels leads to climate change.

Adding fuel to already worsening situation, deforestation plays a major role. Clearing forests and cutting down trees for commercial ^{purpose} can give humans a good quality wood, but this activity gives bad atmospheric conditions ^{too} in return. Trees act as carbon sink. They not

only absorb carbon dioxide, but also emit oxygen which is mandatory for human life. When you humans cut trees, concentration of carbon increases in the atmosphere. According to a research published by the Duke University of the US, deforestation is the second major cause of carbon concentration in the atmosphere after burning of fossil fuels. Hence deforestation causes climate change.

In addition to above two factors, depletion of ozone layer in the Antarctica region is also responsible for abrupt changes in the climate of the world. In 1985, Joe Farman of British Antarctic Survey published a report in which it was claimed that CFCs (Chlorofluorocarbons) are the major factor behind depletion of the layer. These CFCs are used in refrigerators, air conditioners and aerosols. Depletion of ozone layer is not only responsible for planetary warming, but it has been accounted for changed weather conditions like prolonged heat waves. So, depleted

layer also added to the list of causes.

Climate change is not a myth but a reality. These cause have impacted the climate in a way that the implications are evident in the world.

The first and the most obvious evidence of climate change in the world is sudden melting of glaciers and ice caps. These glaciers are melting at an accelerated pace that in late 1800's, there were 150 glaciers in the Glacier National Park, Montana; now, the park is left with only 26 glaciers. Similarly, July 2019 have been the worst year of glacier melting for Greenland as it lost 217 billion tons of its ice. The Intergovernmental Panel on Climate Change (IPCC) estimated that if the ^{global} temperature rises upto 2°C , the Greenland will lose all of its ice. Melting of glaciers ^{has} direct impact on the climatic conditions of the Earth which is evident for last few decades.

Melting of snow caps leads to rise in the sea levels which is second major evidence of climate change. As per recent

Studies of NASA, the sea level has risen upto 6 to 8 inches. Risen sea level results in encroachment of coastal areas. In many regions, it has impacted agricultural land and residential areas as well. IPCC estimates if the situation of melting glacier remains the same, there will a rise of 3ft in the sea levels by 2100. Thus, risen sea levels ^{gives an} evidence that climate change is in the progress.

Finally, changing weather conditions and climatic patterns ^{are the} proofs that ^{the} world is experiencing climate change. Tropic regions ^{are} receiving less rainfall while desert areas are receiving the record rainfall give an idea that the climatic conditions of the regions are changing. One such example is the recent torrential rains in Saudi Arabia. Moreover, regions are facing prolonged summer with severe heat waves like in Karachi, Pakistan and short and acute winter conditions where the temperature drops ~~to~~ way below from the freezing point. All of these examples provide evidence of the climate change.

Pakistan contributes 0.34% of the world carbon - this is way lesser as compared to the carbon emitted by China, US and India - yet it is the worst affected of the climate change. In order to mitigate the adverse effects of the climate change, Pakistan is taking certain measures.

Pakistan has ratified the Paris Climate Agreement 2016. Paris Climate Agreement ensures the steps that should be taken to control the changing patterns that our climate ~~is~~ exhibiting. Many world countries have joined it, along with Pakistan, and vowed to take measures in service of the Earth.

Secondly, Pakistan has also devised its Climate Change Policy. According to this policy, the country is working to mitigate negative impacts of the issue under the Ministry of Climate Change. Under this policy, Pakistan has run Green Pakistan Initiative. This initiative enabled Pakistan to achieve the target of a program like Ten Billion Trees Tsunami. In this way, Pakistan gave the most important gift to the

nature: trees.

On one hand the country is running plantation and forest preservation drives, on the other hand, it is ensuring its presence on all the international forums related to climate change. Pakistan has been the signatory of ^{almost} all the international agreements related to climate change such as Kyoto Protocol, Paris Agreement etc; ~~and~~ it has also shown its representation on world events like the recent COP-27.

Along with all the above-mentioned efforts, Pakistan also advocates the use of renewable sources of energy for sake of saving the mother nature. In this regard, it has worked for installation of various wind, ~~hydro~~, hydro and solar power plants project in collaboration with China under China Pakistan Economic Corridor. Shifting to renewable sources of energy will not only save the Earth from climate change, but also result in economic progress of the country.

Climate change is not the problem of Pakistan only, rather it is an issue of the whole world. Countries and world organisations are also working together to counter its adverse impacts.

For countering the impacts of climate change, the first step is to inform and educate people. As climate change is ^{the} result of human activities mostly, so mass awareness in this regard is imperative. The world has taken this responsibility, and ^{it} ran various awareness campaign in this regard. For example, Earth Day is celebrated on 22nd of April every year; prospects and threats are discussed in this day.

Moreover, global organisations has introduced the concept of carbon credit. Carbon credit is ~~the~~^a permit which allows its holder to emit certain amount of carbon into the atmosphere. One carbon credit allows the emission of one ton of carbon or equivalent amount of other greenhouse gases. Carbon credit puts ^a limit on carbon emissions by a country; it helps in controlling the excessive

carbon emissions.

The world has also joined hands to allocate funds for losses and damages caused by climate change. Climate change has increased the frequency of natural disasters in the world. Many developing countries have borne the brunt in this regard. For example recent floods in Pakistan caused both human and economic loss. As per the report of the World Bank, the flood ~~can~~ cost USD 30 billion to the economy of the country, and it would require further USD 16 billion for reconstruction. In order to facilitate developing countries, the world allocates fund in which developed countries majorly contribute. In recent COP-27 in Egypt, funding arrangements under the head of 'Loss and Damages' have been established.

Last but not the least, world organisation are working to build consensus of all regarding this issue. As it is said in an American proverb that we do not inherit earth from our ancestors, but we borrow it from our children.

It means that every nation of the world will have to work for saving earth for its future generation. For building consensus and bringing world nations on a single page, the UN established the United Nations Framework Convention on Climate Change (UNFCCC). Moreover, a range of international agreements have been signed. The purpose of these efforts was to ensure awareness and devising of policies to control the climate change.

In a nutshell, it can be deduced that climate change is the most pressing issue of this age; there is a need of immediate actions in the right direction so that its inverse effects ~~to~~ could be avoided. Several factors like excessive burning of fossil fuel, inordinate deforestation and depletion of the ozone layer account for the changes in the climatic conditions of the world. These causes have impacted the world ~~in~~ on a disastrous level. Owing to these human activities, the world is experiencing sudden ice melt and rise in sea levels; it has

also experienced changes in the weather conditions. Pakistan - being the worst affected of the climate change - is working to mitigate its effects. It has ratified Paris Climate Agreement and ensured representation in all world forums of climate change. Pakistan has also devised its climate change policy and advocated the use of renewable sources of energy. Same as Pakistan, the world is also concerned about its adversities of the climate change. It has run campaigns on mass level for awareness among people. Carbon credit has been introduced to limit the emission of carbon. Moreover, funds for losses and damages caused by the climate change has been established. World organisations are making efforts to bring all nations on a single page as climate change is not an individual's issue but ^{an} issue of the whole world, and every-one has to make an effort for its addressal.

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