

Climate equilibrium is very important as it affects not only humans but plants and animals also. Globally climate is changing. To maintain it, there is a need for action. Climate is now a days changes due to natural and anthropogenic activities. Due to the climate change the earth's global temperature increases by 1%. Climate change leads to rising sea level, ozone depletion and many other consequences. Climate influences on humans as human's are very much effected by the climate. There is a massive human loss in natural disasters which were caused by the climate change. In Pakistan there were four season but now a days due to climate change the summers and the winters extremest and summer remains mostly months throughout the year. Climate is changing and it leads to hazardous consequences, to cater these issues there is a need for collective action so, the climate change can be mitigated.

When the climate, the long term atmosphere changes that is the climate change. Like the earth temperature rises globally, the extremest weathers and that results in serious consequences. Climate changes has many factors that plays role in its change. There are many anthropogenic and natural



Causes.

One of the main cause of climate change is volcanic eruption. As it is natural cause of climate change. When lava comes out it pollutes the environment. Toxic gases ~~are~~ released that not only effects the human life but animals also. There ~~will be~~^{no} vegetation there for years. The tempera^{ure} increases very much and it is very difficult for the survival, it also results in the massive migration of humans and animals and loss of flora.

The anthropogenic cause of climate change is the emission of green house gases. These gases includes carbondioxide, methane, water vapours, nitrous oxides, sulphur oxides etc. As, carbondioxide is necessary for the Earth's atmosphere but when the carbon-dioxide exceeds from its limit it leads to the green house effect. In which temperature increases. The green houses gases come from different sources like appliance that releases (CFC) chlorofluocarbons and emission from the vehicles.

Deforestation is an other reason of the climate change. Trees releases the oxygen which is useful for humans and uptake the carbondioxide that was released by the humans. When trees are cut for any purpose not only the water table disturbs but climate change occurs. It also results in

increase natural disasters, like floods which causes huge loss. Deforestation disturbs the flora and fauna. When trees are cut for the conversion of ~~yellow~~ green belts into yellow belts ecosystem loses and natural habitat disturbs. When trees cut abruptly, climate change abruptly because a tree needs years to grow and trees maintain a normal temperature.

Open dumping is also an other reason of the climate change. Open dumping releases the methane gas which contribute to the green house effect and changes the climate. When waste is open dump it also causes different disease and pollutes the land and even sometimes it mixes with the water and causes water pollution and leads to the water borne illness. Open dumping pollutes the air and hence leads to the climate change. In Pakistan there is about 50% open dumping in rural areas.

The other main reason of climate change is the burning of fossil fuels. Fossil fuels emit different gases like carbon monoxide, oxides of nitrogen, sulphur oxides that leads to the change in climate and it disrupt the normal composition of air and disturb the environment by increase the number of

harmful gases. These harmful gases results in serious consequences like the ozone depletion and greenhouse effect. In US, there were incinerators for the waste and that keep the atmosphere clean.

Industrialization is also the major cause of climate change. The smoke from the industries and from the brick kilns is very harmful for the climate and leads to change in climate. It is also very hazardous for the flora and fauna of the nearby areas. The US is emitting maximum carbon from the industries as compare to Pakistan emitting only 0.8% and is the most vulnerable country that is effecting from the climate change. The smoke released from the industries should be cleaned by using different technologies like scrubbers, that mitigate the effect of climate change.

These change in climate leads to hazardous effects like global warming. It is also called as extended greenhouse effect. In global warming the temperature increases. The Earth's temperature increases 0.3 globally. The climate is mostly effecting the warm countries. This global warming also results in the changing wind patterns and the weather patterns because when heat ^{more} increases the Earth's

temperature.

Due to climate change the rate of natural disaster increases which includes the floods. In 2022, due to the flood economic losses of Pakistan reached \$40 billion and approximately ten thousand people died and huge loss of live stocks and vegetation. This is because when temperature increase the more the evaporation, the more the rainfall. It is due to extreme hot summers and results in the massive loss.

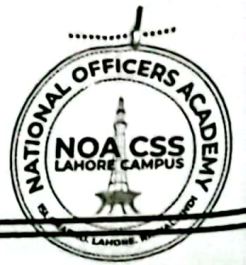
Rising Sea level is another effect of climate change. When temperature rises the ice caps and glaciers melt this increases the volume of the oceans and seas. The ice caps and glaciers are now melting at very high speed and only 60% of the glaciers are left and this is the devastating effect of the climate change. This also affects the aquatic life and leads to the water scarcity. Aquatic life dies due to the high salt concentration ⁱⁿ of water.

Climate Change also results in the depletion of the Ozone layer. Ozone is the protective layer that saves us from the harmful rays of the Sun, especially ultra violet rays. ~~from the~~

Sun gives heat in the form of radiations and these ^{all} radiation are not safe for fauna and the humans. Due to different gases climate is changing and these gases deplete the ozone layer. As ozone damages allows the ultraviolet rays to pass through it and causes diseases. In 2022 the ozone layer restores. By 2050 there would be complete restoration of the ozone layer.

Climate Change has devastating effects to mitigate its effects there is a need for collective action. As Pakistan is signatory of Sustainable development goals and by 2050 the SDG of clean and sustainable environment would be completed. United Nations also calling for the conferences and passes the resolutions for reducing climate change as it has very hazardous effects. There should be ban on the open dumping, fossil fuel burning, deforestation, and the green house gases emission. Afforestation should be common and can mitigate the effect of climate change. There should be proper waste management.

In conclusion, climate change is very harmful for all living organisms such as fauna humans and plants and leads to severe damages. If not solved, it causes massive losses. To mitigate or reduce the effect of climate



change it is necessary to take those measures which can be helpful to overcome climate change.

There is a need to shift to renewable sources of energy as compare to non-renewable sources. and should take measure to lower the emission of green house gases. As by fulfilling the sustainable development goals of clean and safe environment climate change can be reduced.

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