

Climate change: causes, effects and remedies

Outline:

1- Introduction:

Thesis statement: Climate change is a burning issue of the world which is caused by the unrestrained activities of human beings. Resultantly, it leaves harmful effects on environment. However, the issue can be resolved by following some effective measures.

2- The phenomena of climate change

3- Causes of climate change

a) Irresponsibility of global leaders to the some environment binding agreements.

b) Unbridled carbon emission by countries

c) Dependency on non-renewable energy

d) Greenhouse gases emissions

e) massive deforestation

f) Dearth of awareness among

common masses.

4- Effects of climate change

- a) Rise of global temperature.
- b) Unprecedented glaciers melting.
- c) Increase in water crisis.
- d) Decline in agricultural production.
- e) serious concerns of food insecurity.
- f) massive displacement of population.
- g) Extinction of know species at a dramatic speed.
- h) Rise of sea level.

5- Remedies for climate change

- a) Reduction in the combustion of fossil fuel.
- b) A sense of responsibility by the global leaders.
- c) population control
- d) sustainable agricultural practices
- e) Spreading awareness among common people about climate change.
- f) Afforestation across the world.

6- Conclusion.

The Canadian activist Michael J. Fox says "Everything is cause and effect. If you do not move, nothing will move with you" This means that every issue, human faces, is cause and effect in nature. If one does move to resolve it, nothing will resolve it. The words of Michael J. Fox bears relevance with climate change as climate change is also cause and effects issue, so if one does not move to mitigate the climate change, nothing will mitigate this burning issue. The climate change stems from various causes/factors which include irresponsibility of global leaders, unbridled carbon emission and dependency on non-renewable resources/energy. Furthermore, Green house gases, deforestation and dearth of awareness among.

Common people about climate change. As a result, the causes leave adverse effect on the whole environment such as rise of temperature, glaciers melting, fuelling water crisis, decline in agriculture and food insecurity. Moreover, climate change also results in massive displacement of population, extinction of species and rise of sea level. However, the issue of climate change can be tackled by taking some preventive measure like ~~re~~ reduction in the combustion of fossil fuel, a sense of responsibility by the leaders, population control, and sustainable agricultural practices. Additionally, spreading awareness among common people with regard to climate change and afforestation across the world

are some of the important remedial measures which can greatly mitigate the burning issue of climate change. Thus, climate change is a burning issue of the world which is caused by the unrestrained activities of human beings. Resultantly, it leaves harmful effects on the environment. However, the issue can be resolved by following some effective measures.

Climate change is a global phenomenon of climate transformation, started after the industrial revolution, characterized by changes in the usual climate of the planet.

According to National Aeronautics and Space Administration (NASA) "climate change is a broad range-

of global phenomena created predominantly by burning fossil fuels, which add heat-trapping gases to earth's atmosphere. climatic unusual changes, that are taking place in the environment, are human induced changes. These changes are caused by burning of fossil fuels, greenhouse gases emission and other human activities. Thus, climate change is the unusual changes in the earth's atmosphere which are caused by human activities.

As mentioned above that climate change is the result of various causes.


One of the main causes of climate change is the responsibility of global leaders to the binding agreement paris climate agreement Cop21.

It was decided in the agreement by all major emitters of carbon that they would make carbon gases cut. In the agreement, various target were set for developed countries and developing / major carbon emitters, but unfortunately not a single country met the carbon cut-off plan and showed themselves irresponsible. Trump pulled out USA from COP 21. Xi Jinping did not consider china developed country. India and Europe, which collectively do 18% global emission, did not meet the carbon cut-off plan. Thus, all the global leaders showed irresponsibility in the mitigation of climate change.

Apart from irresponsibility of global leaders, the unbridled carbon emission also greatly -

Contributes to climate change.

The carbon emission increased world temperature. According to Intergovernmental Panel on climate change "Carbon emission is responsible for most of the global warming" It is the largest contributor accounting for around three-quarters (74.4%) of total emissions. The countries which make emit unbridled carbon emission are China, US, India, European Union and South Africa. Pakistan contribution of it is less than one percent but Pakistan is eighth climate vulnerable country of the world. ~~This~~ In a nutshell, the unbridled carbon emission causes unusual changes in the environment.

Another cause of climate change is 

to much dependency on non-renewable energy by human beings. Although, scientists have put their efforts into practice to shift into renewable energy, they have not fully shifted to it yet. The dependency on ~~to~~ non-renewable energy greatly to climate change. Many sectors of the world depends heavily on the combustion of fossil fuels. Which ~~cause~~ contributed to global emission. As for the fifth Assessment report of IPCC "energy sector contributes about 35% global emission, Agriculture 25%, industrial sector 21% and transport sector 15% of global emission." Conclusively, these dependency of these aforementioned sectors on non-renewable energy bring unusual change in the environment.

In addition, the massive deforestation also cause climate change.

Trees are considered the lungs of the mother earth and best carbon eaters. But unfortunately trees have not preserved rather deforestation of the trees is going on.

As for "Global Forest Watch" more than ten millions hectares have been deforested over the last five years"

From 2001 to 2022, Pakistan lost 9.80 Kha of tree cover, equivalent to a 1.0% decrease in tree cover since 2000, an 3.62 Mt of CO₂e emissions" (Global Forest Watch). ~~Here~~

Thus this massive deforestation is harmful for the environment and causes climate change.

Besides the aforementioned causes of climate change, the dearth of awareness among common masses about the environmental changes is another cause of climate change, because common people do not know the conservation of natural resources, and those factors which cause climate change. Although, environmental protection campaigns are organized/formed in the world, but common masses ~~are~~ have not conversed with regards to the harmful effect of climate change. As result, these unaware people do not contribute to the protection of environment and mitigation of climate change. Thus, lack of awareness among common

Common masses results in climate change.

The various causes of climate change, discussed above, results in the rise of global temperature. Human-caused climate change is already affecting many weather and climate extremes in every region across the globe. A 1.1°C rise of temperature, widespread and rapid changes have already occurred. The global temperature is still on rise further due to the aforementioned various causes. As the rise of temperature predicted by the United Nations report released in 2022 "Earth is on course to warm 2.5°C by the century end" presently, the temperature of the world stands

around 1.1°C . and it is on rise as depicted in the above report.

To put it brief, the global temperature is on the rise due to the various human activities.

Owing to the rise in global temperature, the glaciers of the world are rapidly melting. Various famous glaciers in different countries across the world are melting unprecedentedly.

According to the International Commission on Ice and Snow "

African glaciers 32%, New Zealand 11%, China 20%, Russia 50% and northern USA 25% glaciers retreat were recorded. This rapidly melting of the world glaciers is a serious threat for the global environment. and the

Various living organisms.
 ♦ World's glaciers melted at dramatic speed in 2022" (United Nation, Amin Ahmad, Down April 2022) Thus, the above mentioned evidences show that the world glaciers are melting rapidly to the rise of global temperature.

The melting of glaciers increases water crisis as it a direct threat to the global water. Almost 79% per cent of fresh water exists in the ice, so if it is melting, water crisis will increase in the world. The melting of glaciers will put pressure on the supplies of water as the rising from the people will increase." United Nations International Child Emergency Fund states

reported that "Half of the world population could be living in areas facing water scarcity by as early as 2050" This is really a shocking prediction which is the effect of climate change. Thus the rapid climate change and the melting of glaciers results in an increase in water crisis.

Due to inadequate supply of water, (caused by glaciers melting and climate change) agricultural production has ~~be~~ greatly declined. Agriculture guarantees the prosperity of ~~the~~ a country but owing to climatic changes, it is experiencing reduction in its productivity.

Apart from glaciers melting, the unprecedented torrential rain which is caused by the

changing climate also badly hit the agricultural sector of Pakistan. ~~The~~ For example, World Bank estimated that the flooding of 2022 cost the country more than \$30 billion in total damage." Agriculture is a key driver of Pakistan economy as it contributes 23% to GDP and provides employment to almost 37.4% of the country's labour force. Despite this huge contribution, the agricultural production such as wheat, grain, cotton, rice, sugarcane and so on are subjected to the unprecedented rain caused by changing climate.

The decline of agriculture sector, owing to climatic changes, results in food insecurity. The huge -

reduction in various crops of the Pakistan has led the country into an alarming situation in regard of food. This shocking condition of the country has reported by World Food Program. According to World Food Program 18% of Pakistanis are experiencing a severe food crisis while 43% of their compatriots lack adequate food." The future of the country will be more vulnerable to food insecurity because the country is the most climate vulnerable.

As it already mentioned above that water would have become costlier, food crops would have reduced, and unprecedented —

torrential rain would have increased. These all will collectively displaced many people in the country. The flood in 2022 in Pakistan displaced many people, **According to Pakistan's national disaster authority,** "Almost 8 million people were displaced" Apart from flood, if water crisis increases in a particular affect climate affected area, the residents of that place will definitely migrate to a place where water supply is adequate. Thus the climatic changing would disturb and displace the population of the country.

Changing climate is not only affecting human lives, ~~rather~~ but also affecting

the lives of various species in the world.

Various reports have been released the extinction of species due to climate change." According to IPCC upto 70% of global known species will be at risk of extinction if global temperature rises more than 3 degree centigrade."

Furthermore, marine policy journal states " 75% of the world fisheries have fully or over-exploited". Thus, due to climate change, the extinction of many known species is at dramatic speed.

However, these devastating effects of climate change can be mitigated if the combustion of fossil fuel is reduced. As it was mentioned earlier in

causes of climate change that the combustion of fossil fuels greatly contributes to the rapid changing climate. Therefore, combustion of fossil fuels should be avoided for tackling the issue of changing climate. The global community must focus on sustainable reduction of various harmful emissions.

"Keeping warming to 1.5°C requires deep, rapid and sustained greenhouse gases emissions reduction in all sectors" (Intergovernmental Panel on Climate Change). In a nutshell, combustion of fossil fuels should be decreased to effectively cope with the changing climate.

Besides, reduction in the combustion of fossil fuels, the leaders of the

should feel a sense of responsibility towards the rapidly changing climate. It was mentioned earlier in the causes of the climate change that some global leaders showed irresponsible behaviour about controlling climate change. These leaders should sideline their national interest and should focus on the controlling of the burning issue of climate change.

For defusing the climate time-bomb, the world community needs concerted and collective efforts.

"The 1.5 degree limit is achievable. Our world needs action on all fronts - everything, everywhere, all at once" (Antonio Guterres UN secretary general)

Moreover, the rapidly growing population should

be controlled because the increase of population results in the consumption of more resources which will ultimately lead to climate change.

For controlling the unbridled population of the world, some effective measures should be adopted like family planning and seminars between academia and civil society ~~so~~ must be conducted. Furthermore, moderate religious clerics awareness should be spread among people. Thus, more population means more combustion of fossil fuels, more emission and more pressure on various resource, ~~so~~ population which all collectively contribute to climate change, so population should be controlled to mitigate the ongoing rapid climate change.

To conclude, climate change is a global phenomenon of transformation of climate characterized by changes in the usual climate of the planet. It is a burning issue of the world. It is caused by various factors which include the irresponsibility of global leaders, carbon emissions, dependency on non-renewable resources, deforestation and lack of awareness among common people about the devastating impacts of climate change. These different causes of changing climate results in the rise of global temperature, glaciers melting, water crisis, displacement of population, extinction of species and rise of sea level. However, these devastating effects of climate change can be mitigated by putting some —

concerted efforts into practices such as, reduction in the combustion of fossil fuels, a sense of responsibility by the global community and leaders. Furthermore, population control, sustainable agricultural practices, spreading awareness with regard to the harmful effects of climate change and afforestation across the world.

Thus, climate change is global issue which has devastating effects on the environment as a whole. For mitigating the issues the aforementioned suggestion should be followed.

"The greatest threat to our planet is the belief that someone else will save it"
By Robert Swan