

# Climate change: Causes, Impacts and Remedies

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## Outline

### ① Introduction

There are numerous causes, impacts of climate change, which can be resolved by taking remedial measures

### ② Major Causes of climate change

- a) Green house gases emission
- b) Deforestation
- c) Industrialization
- d) Improper solid waste management
- e) Use of fertilizers and animal farming
- f) Urbanization

### ③ Major impacts of Climate change

- a) Rise in temperature
- b) Melting of glaciers
- c) Rise in sea level
- d) Ocean Acidification
- e) Severe health issues
- f) Economic consequences

### ④ Remedial measures for the resolution of the issue

- a) Promoting afforestation
- b) Imparting awareness about the outcomes of the issue
- c) Using renewable energy sources
- d) Establishing "Reproduce, Reuse and Recycle" policy
- e) Supporting aquaculture to save marine life
- f) Using public transport

### ⑤ Conclusion

"If you twist the nature, nature will twist you."

There is no iota of doubt that nature plays significant role in the ecosystem. Currently, world witnesses a utmost issue named Climate change. It can be defined as long term shift in earth's temperature. It is a natural phenomenon, while in 21st century it ~~has~~ <sup>has</sup> surged at pace due to human activities. The human activities has caused many drastic impacts that which resulted rapid change in climate. According to US Scientists, the global temperature of earth has rised to the  $2^{\circ}\text{C}$  since the rise of industrial revolution. After the revolution, the world started using non-renewable energy sources which adversely affected the whole environment. It is alarming situation for the globe to take serious concerns to prevent the threats of climate change. Many countries have formed organizations like United Nations Environment Programme UNEP, Intergovernmental Panel on Climate Change IPPCC, World Meteorological Organization and Climate Action Network CAN to deal ~~the~~ <sup>with the</sup> ~~issue~~ <sup>crises</sup>.

These are numerous causes of the climate change, including Green house gases emission, Deforestation, Industrialization, Improper Solid waste management, Use of herbicides and pesticides on lands and Urbanization. Moreover, there are multiple impacts of the issue, including Rise in temperature, Melting of glaciers, Rise in Sea-level, Ocean-Acidification, Severe health issues and Economic consequences. However, by taking remedial measures these impacts can be resolved. It includes Promoting afforestation, Imparting awareness about the outcomes of the climate change, Using <sup>Public transport</sup> and Reproduce, Reuse and Recycle policy to control and supporting aquaculture to save marine life. Through these measure the world can cope up with climate change issue.

The green house gases emission is the root cause of air pollution and impacts the climate. It can be defined as the emission of Carbon dioxide  $\text{CO}_2$ , Nitrate  $\text{NO}_2$ , and Methane  $\text{CH}_4$  into the environment.

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It is caused by burning of fossil fuels like coal, gas and oil contributing its in air pollution. Owing to the issue, GHGs, the earth's atmosphere witnesses perilous challenges like such as global warming and smog. Many countries like United States US, United Kingdom UK and France, Canada have taken serious steps to lower the rates of air pollution and by adopting ecofriendly alternatives like renewable energy sources.

Deforestation is the second biggest <sup>cause of climate change</sup> ~~cause~~ issue in the world. Due to shortage of tree, the world experiences extreme hot temperature. Forest and trees are the major source to absorb  $\text{CO}_2$  and produce  $\text{O}_2$  in the environment which saves the humans from severe impacts of climate change. According to BBC report, around 80% of trees are chopped off to produce the paper. It is the alarming situation for the world that <sup>the</sup> number of forest are cut off and lands convert into residential purpose that can severely disturb the ecosystem of earth. The world

should adopt the techniques of well developed countries like USA and European countries to save forest and wildlife to save the earth from the peculiar threats of climate change.

Industrialization is one of the major threats to earth's atmosphere. The industrial zone and factories are the main contributors of pollution and green house gases, which depletes the earth's ozone layer.

Due to industrial sector, the humans and animals witness severe impacts. The factories have disturbed the ecosystem of the planet.

According to BBC report about climate change, it reported that the earth's temperature has rapidly increased due to excessive use of fossil fuel which have put earth on the verge of destruction. Moreover, the industries mismanaged its waste, chemicals and toxic substances and release it into the ocean that disrupt marine life and cause water pollution.

Improper management of solid waste is also a ~~iss~~ big issue that contributes to the climate change. In many countries, the waste material of industries and factories is not dumped properly <sup>which</sup> that result heavy landfills. Landfills is the third <sup>biggest</sup> largest

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issue after air pollution and global warming. It release large amount of green house gases and affects the environment. According to Asia Times report, around 10 million tons of landfills are ~~collected~~<sup>not</sup> dumped which ~~add~~ results the <sup>land</sup> pollution and put human health at stake, causing severe diseases and viruses. In China, there is a proper mechanism to dump solid waste and recycle it into objects like benches, chair in public parks. The developing countries should adopt this recycling model in order to ~~manufacture~~ ~~reusable~~ objects clean the environment and decrease the adverse impacts of climate change.

Furthermore, using land for livestock farming and agriculture purpose posit big effects on the climate. The waste material of cattles release large amount of hazardous gases like Nitrate Methane etc. <sup>which</sup> that pollutes and rapidly affect the Ozone layer. Using fertilizer for agricultural purpose produce bulk amount of Nitrate gases that damages the quality of crops and ~~has~~ causes perilous virus and diseases.

to the consumers. It directly releases GHGs that increase the threats of climate change.

Moreover, Urbanization is also major cause that contributes in the climate change. Urbanization can be defined as the conversion of rural areas into big urbanized cities. The urban cities consumes large amount of energy produced by non-renewable energy sources which pollutes the whole environment.

The generation of electricity ~~produced~~ by cheap <sup>and</sup> less efficient ways emit bulk amount of  $\text{CO}_2$ ,  $\text{CH}_4$ , and  $\text{NO}_2$  and put harmful effects on the land life and aquatic life. The United States of America USA has passed a bill, in which it is mandatory on the citizens to grow little garden outside their houses and plant more than two tree near the residence, in order to maintain the equilibrium of nature and reduce the lasting impacts of climate change.

It is a example for countries to promote afforestation in Urban cities in order to deal with the emergence of climate change. However, there are multiple impacts

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of Climate Change mentioned below.

Rise in temperature is one of the global issues that is caused due to rapid shift in climate's pattern known as heatwaves. Recently, the globe has experienced scorching heatwaves by which many countries were adversely affected specially United Kingdom UK. In UK, the Abraham Lincoln wax statue was melted due to intense heatwaves. The CNN news reports stated that the recent heatwaves broke in UK broke the record of last 50 years. Furthermore, the scorching heatwaves caused massive destruction in Pakistan. Most of the seasonal fields and crops were destroyed which adversely affect the economy of the country. Hundreds of people lost their precious life owing to the rise in temperature.

Furthermore, glaciers are the assets of the countries. They are the store waters used in difficult times. Currently, melting of glaciers are rising threats for the world. The Arctic polar region is rapidly melting melts due to sudden changes in climate patterns. Melting of glaciers causes loss of species and

in polar region like polar bears, Penguins, Walrus and Seals. It also contributes to rise in sea level and results disastrous flashflood which causes loss of lives, <sup>damages</sup> infrastructure in the coastal regions.

Similarly, rise in sea-level is also main impact of climate change. It is caused due to melting of glaciers and the water collect into oceans and seas and cause heavy flashfloods and Tsunami. In 2021, many parts of Latin America were severely affected by natural calamities. In 2018, Argentina witnessed drastic flashfloods resulting loss of lives and infrastructure. In 2022 monsoon spell, Pakistan experienced heavy floods, around 250KM highway was washed away. Hundreds of animals were swept away. The southern part of Punjab was drowned during floodings.

Ocean Acidification is another deadliest impact of climate change. It can be defined as the decreased in the pH level of ocean primarily caused by the absorption of Carbon dioxide  $\text{CO}_2$  from atmosphere. According to researches, during burning of fossil fuels and industrial proc-

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ess. the large amount of green house gases  
GHGs are released and 40% of the  $\text{CO}_2$   
is absorbed by Oceans. It causes severe  
impact on marine life. According to US  
Maritime report, around 30% of aquatic  
life is disturbed by the human activities.  
Due to industrial process <sup>and water pollution</sup>, many ~~aquatic~~ marine  
species are about to extinct. due to in-  
These effects are major results of the  
Climate change.

Health issues <sup>is</sup> a big challenge  
caused by climate change. The rise in  
Carbon emission and shortage of Oxygen  
has risen serious concerns about human  
health. The large amount of air pollution  
has caused Asthama and liver cancer  
like disease. The deforestation and GHGs  
emission have catastrophic effects on flora  
and fauna. According to Climate change  
report, In 2040, the air pollution and  
green house gases will be increased ~~since~~  
~~now~~. It will and nine out of ten peo-  
ple will experience severe health issues  
owing to climate change.

Moreover, Climate change has  
far reaching economic consequences,  
including food insecurity and disruption

in agriculture activities. The extreme weather pattern can destroy the crops and fields on which one country's GDP rely. Extreme temperature also affects infrastructure like Coastal areas are vulnerable due to hurricanes and flash-floods. Moreover, due to tough weather conditions, trade and supply chain can be disturbed with the countries. The Climate change has long lasting effects on earth. However, by taking remedial measures the threats of climate change can be resolved.

Promoting afforestation is big step to lower down the impacts of climate change. Planting more trees in urban areas can limit the carbon emission and produce large amount of Oxygen which can be beneficial for living organisms. Due to plantation of more tree the environment can be saved from all sorts of pollutions and diseases. A case study of Mexican couple who transformed a barren area into a forest by promoting ~~and~~ afforestation in order to save the environment from global warming and

other natural calamities.

Imparting awareness about the outcomes of climate change is essential step. Through it the people can get knowledge about the serious implications of the issue.

By arranging seminars, campaigns the people can learn and reduce their activities which pollutes the environment. These steps will surely help people in order to take efficient steps to save the planet from the climate change issue.

Shifting from non-renewable energy to renewable source is a pertinent step to produce clean and efficient power supply for human utilities. Many countries like USA, China and Japan use solar and wind energy. Through it, they generate large amount of electricity to run their industries smoothly. This step can help the countries to prevent the peculiar impacts of the environment like virus, disease and outbreaks caused by climate change.

Moreover, adopting "Reproduce, Reuse and Recycle" policy will be very effective method to save the earth from toxic solid waste material. This method

to reduce the use of plastic and save the earth's environment from land, Air and water pollution. According to Marine life report, millions of marine species die due to increase in water pollution. The water pollution contains large amount of  $\text{CO}_2$ ,  $\text{NO}_x$  and  $\text{CH}_4$  which severely impact oceanic life. The recycle process is a ecofriendly way to reuse the waste in order to generate energy from it and save the earth's environment from deadliest repercussions of climate change.

Limiting the excessive use of automobiles is a proactive step to limit the air pollution. The automobile release smoke in which the hazardous gases like Carbon, Nitrate and Methane are released which adversely impact the atmosphere of the planet. By using public transport like buses and public subways will help reduce the level of pollution in the environment. The countries the world should adopt the model of Japan to use bicycles instead of automobiles which ~~run on~~ consume energy. By promoting bicycle use, the environment can be safe, healthy and ecofriendly from

pollution and severe health issues.

Encouraging aquaculture is an effective step to get a large amount of seafood without polluting the oceans.

Aquaculture can be defined as fish farming in the coastal regions of the oceans.

Many people from USA are engaged in this aquaculture. They use have proper mechanism to clean the coral reefs of oceans and save marine species from extinction and Carbon emissions caused by rapid change in climate pattern.

To recapitulate the aforementioned arguments, Climate change is the utmost issue having far reaching impacts on the ecosystem. It has multiple causes which results drastic impacts. However by taking remedial measures the threats of rising threat of climate change can be reduced.