ENVIRONMENTAL RIGHT - CAUSES, EFFECTS AND SOLUTIONS OF CLIMATE CHANGE

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INTRODUCTION

For the global climate change fossil fuels like coal, oil and gas are the largest contributor, over 90 percent of carbon dioxide emissions and 75 percent of global greenhouse gas emissions. Over time warm temperatures are disrupting usual balance of nature and changing weather patterns. This causing risks to human beings and all life on earth. China ranks first in emitting greenhouse gas, secondly US and countries like India, European Union. Governments meet at the United Nations (UN) for the 28th annual climate conference, or COP28, to explore how to slow down and get ready for future climate change12345. The United Arab Emirates (UAE) hosted the summit in Dubai from November 30 to December 13, 2023. COP28's primary goal was to evaluate international efforts to maintain the 2015 Paris Agreement's target of keeping global warming to 1.5°Cover pre-industrial levels within reach, which was signed by 195 countries.[1]

CLIMATE CHANGE

Long-term changes in temperature and weather patterns are referred to as climate change. These fluctuations may be caused by significant volcanic eruptions or variations in the sun's activity. However, human activity has been the primary cause of climate change since the 1800s, mostly as a result of the combustion of fossil fuels like coal, oil, and gas.

Fossil fuel combustion releases greenhouse gases into the atmosphere, which encircle the planet like a blanket and trap solar heat, causing temperatures to rise.

Methane and carbon dioxide are the two primary greenhouse gases responsible for climate change. These result, for instance, from using coal to heat a building or gasoline to operate a vehicle. Carbon dioxide can also be released through land clearing and forest destruction. The

[1] www.bbc.com

two main industries that emit methane are agriculture and oil and gas operations. Among the primary industries producing greenhouse gases are energy, industry, transportation, buildings, agriculture, and land use.

CAUSES OF CLIMATE CHANGE

Generating power

By burning fossil fuels, they generate electricity and heat causes large level of global emissions. Burning coal, oil, or gas produces carbon dioxide and nitrous oxide, two potent greenhouse gases that cover the earth and trap solar radiation, which is still how the majority of electricity is produced. Approximately 25% of the electricity produced worldwide is derived from renewable energy sources like wind and solar, which produce minimal to no greenhouse gas emissions and air pollution when compared to fossil fuels.

Manufacturing goods

Emissions are produced by manufacturing and industry, primarily as a result of burning fossil fuels to generate energy for the production of items like electronics, plastics, textiles, iron, steel, and cement. The construction sector releases gasses, as do mining and other industrial processes. In the manufacturing process, coal, oil, or gas are frequently utilized as fuel for machines; additionally, chemicals derived from fossil fuels are used to make certain materials, such plastics. Globally, the industrial sector is one of the main producers of greenhouse gas emissions.

Cutting down forests

When trees are cut down, the carbon they have been storing is released, which results in emissions when forests are cleared for farms, pastures, or other purposes. Roughly 12 million hectares of forest are lost annually. Destroying forests reduces nature's capacity to keep emissions out of the atmosphere because they absorb carbon dioxide. About 25% of the world's greenhouse gas emissions are caused by deforestation, agriculture, and other changes in land use.

Using transportation

Fossil fuels power the majority of cars, trucks, ships, and airplanes. Thus, a significant source

of greenhouse gas emissions, particularly carbon dioxide emissions, is transportation. The majority is accounted for by road vehicles, as internal combustion engines burn petroleum-based products like gasoline. However, emissions from aircraft and ships are still rising. Approximately 25% of carbon dioxide emissions connected to energy are produced worldwide by transportation. Additionally, patterns suggest that during the next few years, energy use for transportation will rise significantly.

Producing food

Carbon dioxide, methane, and other greenhouse gas emissions are caused by the production of food in a number of ways, such as deforestation, clearing land for agriculture and grazing, digestion by cattle and sheep, the creation and application of fertilizers and manure for crop growth, and the energy-intensive operation of fishing boats and farm equipment, which typically requires the burning of fossil fuels. Because of all of this, food production plays a significant role in climate change. Additionally, the distribution and packaging of food contributes to greenhouse gas emissions.[2]

Powering buildings

Over half of all electricity is used by residential and commercial buildings worldwide. They continue to produce a large amount of greenhouse gas emissions since they rely on coal, oil, and natural gas for heating and cooling. Energy-related carbon dioxide emissions from buildings have increased recently due to growing air conditioning ownership, growing energy demand for heating and cooling, and increased electrical usage for appliances, lighting, and connected devices.

Consuming too much

Greenhouse gas emissions are influenced by a number of factors, including your housing and power usage, mobility, food intake, and amount of waste disposed of. The use of products like plastics, electronics, and apparel also contributes to this. A large chunk of global greenhouse gas emissions is linked to private households. Our earth is greatly impacted by the way we live.

[2] www.un.org

The wealthiest bear the greatest responsibility: the richest 1 per cent of the global population combined account for more greenhouse gas emissions than the poorest 50 per cent.

EFFECTS OF CLIMATE CHANGE

Hotter temperatures

The global surface temperature rises with greenhouse gas concentrations. The warmest decade on record is the one that ended in 2020. Every decade since the 1980s has been warmer than the one before it. There are more hot days and heat waves in almost all land locations. Elevated temperatures exacerbate heat-related ailments and complicate outdoor labour. In warm weather, wildfires ignite more quickly and spread faster. The average global temperature has warmed at least twice as quickly as those in the Arctic.

More severe storms

In many areas, destructive storms have increased in frequency and intensity. Rising temperatures cause more moisture to evaporate, exacerbating flooding and heavy rains and increasing the frequency of catastrophic storms. The warming ocean has an impact on tropical storm frequency and intensity as well. Typhoons, hurricanes, and cyclones all feed on warm surface waters of the ocean. These storms frequently cause fatalities and significant financial damage by destroying houses and towns.

Increased drought

Water availability is shifting due to climate change, becoming scarcer in more places. In areas that are already water-stressed, global warming makes water shortages worse. It also raises the possibility of agricultural and ecological droughts, which can harm crops and make ecosystems more vulnerable. Destructive sand and dust storms, capable of transporting billions of tons of sand across continents, can also be sparked by droughts. As deserts spread, there is less area available for food production. These days, a lot of people often run the risk of not having enough water.

A warning, rising ocean

Most of the heat from global warming is absorbed by the ocean. Over the previous 20 years,

the speed of ocean warming has dramatically accelerated at all ocean depths. Since water expands when it becomes warmer, the ocean's volume grows. Sea levels will rise as a result of melting ice sheets, endangering island and coastal communities. Furthermore, carbon dioxide is absorbed by the ocean, preventing it from entering the atmosphere. However, an increase in carbon dioxide causes the ocean's acidity, endangering coral reefs and marine life.

Loss of species

The survival of marine and land creatures is threatened by climate change. The higher the temperature, the greater these risks. The globe is losing species at a rate 1,000 times faster than at any other point in recorded human history, which is exacerbated by climate change. There is a one million species that could go extinct in the next few decades. Among the numerous risks associated with climate change are invasive pests and illnesses, severe weather patterns, and forest fires. While certain species may move and thrive, others cannot.

Not enough food

The causes of the global rise in hunger and inadequate nutrition include alterations in the environment and an increase in extreme weather occurrences. Livestock, crops, and fisheries might all be lost or become less productive. The marine resources that sustain billions of people are under threat due to the ocean's increasing acidity. Food sources from hunting, fishing, and grazing have been interrupted in many Arctic regions due to changes in snow and ice cover. Reduced water and grasslands for grazing due to heat stress can have a negative impact on livestock and crop output.

More health risks

The single greatest hazard to human health is climate change. Because of air pollution, sickness, harsh weather, forced relocation, mental health strains, increasing hunger, and inadequate nutrition in areas where people cannot grow or get enough food, the effects of climate change are already having a negative influence on people's health. Approximately 13 million individuals lose their lives to environmental causes each year. Extreme weather events increase mortality and make it challenging for health care systems to keep up with the spread of diseases brought on by changing weather patterns.

Poverty and displacement

People who live in poverty face more challenges as a result of climate change. Urban slums may be completely destroyed by floods, along with people's livelihoods. It can be challenging to work outside in the heat. A lack of water could harm crops. An estimated 23.1 million individuals were relocated annually on average during the past ten years (2010–2019) due to weather-related disasters, making many more vulnerable to poverty. The majority of refugees are from the least prepared and most vulnerable nations to the effects of climate change.

SOLUTIONS FOR CLIMATE CHANGE

Net Zero

Net zero is there to reduce emissions and increase in carbon, it is there to achieve from emitting green house gas into the atmosphere and to remove from it.

Initiatives

National net zero target- By 2050 Japan, Canada and UK committed to achieve net zero emission.[3]

Corporate Commitments- Amazon and Microsoft companies have set targets to achieve net zero also started to invest in renewable energy.

Renewable Energy- Renewable energy is derived and produced from solar, wind, hydro and geothermal power. International renewable energy agency promotes the adoption and sustainable use of all forms of renewable energy source widespread. UN ensure access to affordable, reliable, sustainable energy source for all. Clean Energy Transitions Programs supports to renewable energy.

Finance and Justice

Financial instruments such as green bonds which is used to raise funds for environmental benefits. It provides fund to developing countries to adapt and mitigate climate change. Justice

[3] earth.org

is for fair treatment of all people and free from discrimination in projects that address climate change. To protect the rights of workers affected by the transition.

Sustainable Development Goals

There are 17 sustainable goals set by UN general assembly in 2015 for 2030. It ensures affordable and clean energy for reliable, sustainable energy for all also it includes climate actions which combat with climate change and its impact also improving renewable energy for economic growth and to reduce inequalities.

Paris Agreement

It was adopted in 2015 which aims to limit global warming to below 2 degrees Celsius. Some of the initiatives are Nationally Determined Contributions to adapt impact of climate change and reduce national emissions, global stocktake is to measure progress toward the Paris agreement goals.

CASELAW

Ridhima Pandey v Union of India[4]

Fact

Ridhima Pandey filed the petition on march 25, 2017, arguing that right of her healthy environment is violated because of insufficient government action on climate change, which is protected under public trust doctrine. The petition was under several legal principles like public trust doctrine, Paris agreement and environmental protection act 1986, precautionary principle.

Issue

Whether Ridhima Pandey right of healthy environment violated because of insufficient government action on climate change?

Decree/ Judgement

The national tribunal court dismissed the petition on Jan 25, 2019. The tribunal stated that

[4] 187/2017

existing policies and laws already addressed the issue and there was no need to presume that government not considering environmental and climate policies.

Current status

This case was put for appeal and currently pending before supreme court of India.

CONCLUSION

A comprehensive and integrated strategy that incorporates legislative frameworks, regulatory actions, scientific research, and technology advancements is needed to address climate change. Encouraging effective action requires the participation of multiple stakeholders, including individuals, corporations, governments, and civil society. The increasing involvement of youth activism and the judicial recognition of environmental rights indicate a growing impetus towards building a sustainable and climate-resilient future.