



Learning Descriptive





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Essays on Climate change:

First:

"There is no Plan B because there is no Planet B." - Ban Ki-moon

Jaya Rajamma, a 65-year-old woman from the fishermen community, was forced to relocate from her village, Podampeta in Odisha. Once home to 1,500 inhabitants, Podampeta is now known as a "ghost village" due to frequent tidal floods and cyclones. This harrowing experience is shared by 330 million people worldwide, according to the International Panel on Climate Change (IPCC), who have become climate refugees. Are these vulnerable fishermen or others responsible for these frequent climatic disasters?

Causes of Climate Change

Human activities and natural phenomena have significantly increased the levels of greenhouse gases like carbon dioxide (CO₂), methane, nitrous oxide, and chlorofluorocarbons (CFCs) in the atmosphere. According to the IPCC, global temperatures rose by 0.9°C from 1880 to 2012, exceeding pre-industrial levels by 1.1°C. CO₂ levels surged due to fossil fuel use, deforestation, and industrial activities. Deforestation disrupts natural carbon sequestration, while agriculture and the aluminium industry release methane, nitrous oxide, and CFCs.

However, natural phenomena like volcanoes, permafrost, and forest fires contribute minimally to greenhouse gases compared to human activities.

Threat to the Entire Ecosystem

Climate change affects not only terrestrial ecosystems but also marine life. Rising temperatures lead to the melting of glaciers and permafrost, increasing sea levels and causing subsequent floods. This results in coral bleaching and threatens marine biodiversity. Developing nations like India, where 51% of the agricultural economy is rainfed, suffer due to erratic monsoons and droughts. Crop yields are also affected by changes in solar radiation.

A Window of Opportunity

Recognizing the urgency, international and national summits like the Stockholm Convention and the UNFCCC's Paris Agreement aim to combat climate change by limiting global temperature rise. India's efforts, including the Nationally Determined Contributions (NDCs), sustainable agriculture plans, and the International Solar Alliance, contribute to this global cause, alongside grassroots actions like reducing carbon footprints.



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Soumya Kaushik, a 12-year-old schoolgirl from Guwahati, Assam, loves to spend time in nature, watching and listening to the chirping of house sparrows. It's her favourite part of the day. As soon as school is over, she hastily runs to the lush, tranquil garden behind her school. However, her excitement has turned to gloom in recent days, as there are no birds or their cheerful chirping. Being a child, she is unaware of the impact of climate change, one of the major threats our planet is currently facing.

The Culprits of a Hot Decade

According to The Hindu, the decade from 2011-2020 was the warmest period globally, with temperatures rising by 1.16°C compared to pre-industrial levels due to global warming. This global warming is caused by the accumulation of harmful greenhouse gases like CO₂, methane, nitrous oxide, and CFCs in the atmosphere, primarily from human activities. Urbanisation since the mid-18th century, coupled with extensive deforestation, has disrupted the climate balance. The growing urban demand for energy, primarily met by coal, gas, and fossil fuels (accounting for 75% of India's electricity production), significantly contributes to the greenhouse effect, exacerbating global warming.

The Menace to Survival

Rising temperatures lead to glacial melting and rising sea levels, impacting coastal areas. This causes land submergence, groundwater infiltration, and harmful solar radiation due to ozone depletion, endangering many species of animals, birds, and plants. The IUCN reports over 50% wildlife habitat loss in 49 out of 61 old-world tropical countries.

United Efforts for Harmony

"Climate change is a terrible problem, and it absolutely needs to be solved. It deserves to be a huge priority," stated Bill Gates. Prioritising the curbing of the greatest threat to the world is the need of the hour. The UNCCC's Paris Agreement aims to limit the temperature rise below 2°C. India's National Action Plan, including the National Water Mission, offers hope. We must pursue sustainable development so that not only kids like Soumya Kaushik but also future generations can live in harmony with nature.



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Third:

From facing flash floods in 2010 to acute water scarcity in 2024, Ladakh has undergone drastic environmental changes. Taps and borewells are running dry, prompting the region's largest town to ration water amid a 20% decrease in glacial area. Despite not being a significant contributor to greenhouse gases, Ladakh has felt the severe impacts of climate change, forcing reflection on the causes of this imbalance and the potential for shaping a better future.

Breach of Balance and Aftermath

The Industrial Revolution of the 18th century spurred unprecedented development, emitting large amounts of carbon dioxide (CO₂) and other greenhouse gases (GHGs) like methane (CH₄), nitrous oxide (N₂O), ozone (O₃), and chlorofluorocarbons (CFCs). This rapid industrialization, coupled with India's heavy reliance on coal (accounting for 75% of electricity production) and petroleum for energy and transportation, has contributed significantly to deforestation and urbanisation. Agricultural practices, including intensive farming and the use of fertilisers, further exacerbate GHG emissions, notably methane from livestock.

The resultant rise in global temperatures, approximately 1.2°C as per IPCC reports, has led to widespread impacts. Glacier melting in Ladakh and rising sea levels threaten coastal regions worldwide, while saltwater intrusion into groundwater exacerbates water scarcity. For instance, Chennai faced a severe water crisis in 2019, affecting 2.2 billion people globally who lack access to safe drinking water. Erratic monsoons and disrupted seasons disrupt agriculture, leading to crop failures and food insecurity across Asia and Africa, impacting public health and economic stability.

Balancing the Future

Addressing these challenges requires collective action and innovative solutions. The Paris Agreement sets ambitious targets to keep global temperature rise well below 2°C and strives for 1.5°C, urging countries like India to adopt sustainable practices. Initiatives such as the 'Green India Mission', 'National Solar Mission', and promoting organic farming and agroforestry are steps towards achieving renewable energy targets and reducing carbon footprints.

The path forward demands a concerted effort to forge a world where harmony with nature becomes a shared reality. Ladakh's beauty and resilience remind us that there is no Planet B. By acting now, we can safeguard our planet and ensure a sustainable future for generations to come.



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Fourth:

When was the last time the monsoon arrived on schedule? When was the last time winters felt like true winters? When was the last time the Air Quality Index showed improvement over the previous year's data? Climate change has become such an integral part of human life that these questions often go unnoticed. It's crucial to bring climate change into the spotlight and make efforts to understand its causes and consequences.

Unlike social, economic, and historical issues, climate change is a relatively new but highly threatening problem. As humanity advanced with tools and machines, it relied heavily on nature for resources. Nature had plenty to offer, but man's greed led to the overuse of resources like minerals and fossil fuels, making climate change a significant villain of modern times. Key factors contributing to climate change include deforestation, overuse of fossil fuels, and emissions. Timely interventions could have kept these factors in check, but human greed has ignored the consequences. Erratic rainfall, heavily polluted air, and rising global temperatures causing melting icebergs and vanishing coastal cities are now common.

This brings us to the question: is it possible to revert the climate to its state 500 years ago or completely eliminate pollution, emissions, and waste? From a layman's perspective, it's clear that climate change is here to stay, primarily driven by human activities. However, we can raise awareness about the contributing factors and encourage people to reduce the usage of highly polluting fuels and pesticides while increasing green cover. As the saying goes, "It was time to ignore; now it is time to act."

In conclusion, addressing climate change requires a collective effort to mitigate its effects and prevent further damage. While we may not be able to restore the climate to its historical state, we can take significant steps to reduce our impact on the environment. By creating awareness and promoting sustainable practices, we can ensure a healthier planet for future generations.