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ECOSOC 1 (HLPF)

Research Report

Topic 2: Identifying solutions to prevent climate change from negatively developing



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Introduction:

Long-term changes in temperature and weather patterns are referred to as climate change. These changes could be caused by natural processes, such as oscillations in the solar cycle. But since the 1800s, human activities—primarily the combustion of fossil fuels like coal, oil, and gas—have been the primary cause of climate change.

Fossil fuel combustion produces greenhouse gas emissions that serve as a blanket around the planet, trapping heat from the sun and increasing temperatures. Carbon dioxide and methane are two examples of greenhouse gas emissions that are contributing to climate change. These are produced, for instance, while burning coal or gasoline to heat a building. Carbon dioxide can also be released during forest and land clearing. Methane emissions are primarily produced by waste landfills. Among the major emitters are energy, industry, transportation, buildings, agriculture, and land use.

The amount of carbon dioxide in the atmosphere has expanded by more than 30% since the industrial revolution, reaching heights unseen in the previous 160,000 years. The phrase "global warming" is frequently used to describe the rise in the planet's average temperature. But because more pollutants in the air may have effects other than only greater temperatures, many scientists and environmentalists now prefer to use the more general term "climate change." The term "global warming" does not indicate the other atmospheric changes, such as severe weather patterns, that are anticipated to occur. Instead, climate change may, in some regions, result in lower temperatures even though the earth's average temperature rises.

Definition of Key Terms:

1. Fossil fuels: Fuels that developed underground from plant and animal remains millions of years ago, such as gas, coal, and oil.
2. Greenhouse gas emissions: The gases in the atmosphere that have an influence on the earth's energy balance.

Background Information:

The Intergovernmental Panel on Climate Change (IPCC) was established to investigate the scientific and political concerns related to the climate crisis at the request of the Reagan and first Bush Administrations. One of the most exhaustive, comprehensive, and peer-reviewed scientific investigations in human history was carried out by the IPCC, which assembled 2,500 climate change experts. Scientists urged industrialized nations to reduce global warming

emissions by 60 to 80 per cent in the IPCC's 1990 First Assessment Report, which forecast an increase in temperature of two to six degrees Fahrenheit over the next century. The Framework Convention on Climate Change, which President George H.W. Bush signed in 1992 and the Senate ratified the same year, was based on the backdrop provided by this report. Without imposing any legally binding obligations on the parties, the pact recommended that industrialized nations reduce their carbon dioxide emissions voluntarily. In its Second Assessment Report, the IPCC said that "the weight of evidence shows that there is a discernible human influence on global climate," which was published in 1995.

The Third Assessment Report, published in 2001, anticipates an increase in the earth's average temperature of up to 10.4 degrees Celsius by 2100, which is more than 60% greater than what the IPCC forecasted in its previous research. The rate of change would be the fastest in 10,000 years with an increase of this size. The report, which received unanimous approval, is the most thorough analysis of global warming to date.

Major Countries and Organisations Involved:

1. Peoples Republic of China:

The relationship between China's development and climate change is intricate and getting more so. Both its increased global greenhouse gas (GHG) emissions and negative effects have a significant influence on the nation. China's role in lowering the hazards associated with a changing climate is therefore vital, especially in conjunction with other major polluters. It will be difficult to reduce greenhouse gas emissions in a highly carbon-intensive industrial sector, which presents transition risks but also creates new growth prospects. The CCDR is firmly rooted in China's own ambitions for growth and the environment.

2. United States of America (USA):

The United States of America is the second largest Greenhouse gas GHG emitter, in doing so, over 77% of US greenhouse gas emissions come from fossil fuel combustion. As a result of human activities, the United States is responsible for 30% of global energy usage despite only being 5% of the global population (EESI). The American organization "USAID: for the American People", a climate strategy, set for 2022-2030, is established to confront climate with ambitious and equitable actions. It aims to guide humanitarian development work through formulating approaches to reduce greenhouse gases, in addition to aiding partner nations to

collectively resist climate change. Thus, the strategic objective focused on reaching these goals is through System Change.

3. India:

India is the state with the world's second largest population at 1.3 billion, and an economy in the sixth position in terms of gross domestic product (GDP), it is the second largest coal consumer after China. It is arguably an equal contributor as it is a victim of the climate crisis. According to a poll from the Pew research centre: three-quarters of India is concerned about global warming in the region (Timpelery), whereas in another survey Climate change is labelled a national threat to the country, second to the threat to ISIS. India is putting in the effort to maintain stability in the state in terms of climate effects, according to its Long-term Strategy for Low Carbon Development (LTS) submitted at COP27. It plans to develop coal in the long term, but as of now the rating of emissions from burning coal remains highly insufficient.

4. Russian Federation:

Due to the Russian illegal invasion of Ukraine, it is claimed to have released climate-warming gases in abundance. The war has caused the warming of Earth's atmosphere through the release of 33 million tons of greenhouse gases through the course of the year-long war. Ukraine's environmental protection minister: Ruslan Strilets states at Sharm el Sheikh "Because of the war, we will have to do even more to overcome the climate crisis" as the rebuilding of damage caused by the war will cause more emissions, with an estimate up to 49 million tons of carbon dioxide (Rannard). Russia's efforts to combat climate change remain very low, with domestic policies not adequate enough to slow down the rapid warming of the climate in its territory.

Possible Solutions:

In order to resist climate change and reduce global temperatures, it is required to take collective measures to save the planet we are sharing as nations. The possible solutions for climate change are such as but are not limited to:

1. Global reduction of greenhouse gas emissions, with support to lower economically developed states (LEDC) whose economies depend on industrial production. This is an overlooked when asking all nations to reduce their emissions, where most underdeveloped nations host more factories and coal-based production, as an economy, that are then bought by the west.
2. Efforts in removing carbon from the atmosphere by banning deforestation globally, and only permitting industrialization of rural areas through undergoing a process with the

government, supervised by the universal climate committee. Deforestation is a driving force for the increase of carbon dioxide in the atmosphere and the increase of Earth's temperature, by limiting it globally, we will better maintain and clear out our atmosphere.

3. Limiting waste by managing human activities enforced by governmental policies.

Governments should enforce policies that protect the natural environment when limiting waste:

- a. Polluting streets
- b. use of pesticides and fertilisers in agricultural production
- c. public transportation more accessible
- d. shift to renewable energy sources
- e. adopt the desalinization method for water usage

4. A central committee is to be formed that holds all nations accountable for breaching

regulations and not upholding climate agreements; Penalties are enforced. ‘

Works Cited:

“Climate Change - United Nations Sustainable Development.” *United Nations*, United Nations, <https://www.un.org/sustainabledevelopment/climate-change/>.

“Climate Change Will Reshape Russia.” *Climate Change Will Reshape Russia | Center for Strategic and International Studies*, <https://www.csis.org/analysis/climate-change-will-reshape-russia>.

Environmental and Energy Study Institute (EESI). “U.S. Leads in Greenhouse Gas Reductions, but Some States Are Falling Behind.” *EESI*,

[https://www.eesi.org/articles/view/u.s.-leads-in-greenhouse-gas-reductions-but-some-states-are-f](https://www.eesi.org/articles/view/u.s.-leads-in-greenhouse-gas-reductions-but-some-states-are-falling-)

alling-behind#:~:text=The%20United%20States%20accounts%20for,percent%20of%20the%20world%27s%20population.

Harrison, Thomas. "The Carbon Brief Profile: India." *Carbon Brief*, 26 Apr. 2021, <https://www.carbonbrief.org/the-carbon-brief-profile-india/>.

"India." *Climate Action Tracker*, <https://climateactiontracker.org/countries/india/>.

"Leading International Organizations Commit to Climate Action." *UN Environment*, <https://www.unep.org/news-and-stories/press-release/leading-international-organizations-commit-climate-action>.

Rannard, Georgina. "COP27: War Causing Huge Release of Climate Warming Gas, Claims Ukraine." *BBC News*, BBC, 14 Nov. 2022, <https://www.bbc.com/news/science-environment-63625693>.

"Russian Federation." *Climate Action Tracker*, <https://climateactiontracker.org/countries/russian-federation/>.

USAID Climate Strategy 2022–2030.

<https://www.usaid.gov/sites/default/files/2022-05/USAID-Climate-Strategy-2022-2030-Fact-Sheet.pdf>.

"What Is Climate Change? A Really Simple Guide." *BBC News*, BBC, <https://www.bbc.com/news/science-environment-24021772.amp>.

"What Is Climate Change?" *United Nations*, United Nations, <https://www.un.org/en/climatechange/what-is-climate-change>.