

Committee: ECOFIN

Topic: The question of the financial effects of climate change

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Summary

Climate change has been a recurring problem over the past few decades, as many nations try and start initiatives to reduce their climate impact. Previously, climate change had been regarded by many as natural global warming and was disregarded. However, many climate experts have produced research suggesting the contrary, that the human impact on the environment is causing radical changes to the earth's climate. This has prompted many global agreements with the intention of reducing the human impact on the climate, achieving a goal of "carbon-neutrality". However, the human impact on the climate, which has manifested itself as climate change, is currently having impact on many nations, with flooding and devastating storms increasing in frequency and severity. This causes much damage in these nations, with many of them not being able to rebuild from it.

Definition of Key Terms

Climate change – Long-term changes in the Earth's climate, especially those said to be produced by global warming.

Global warming - the long-term warming of the planet's overall temperature. Though this warming trend has been going on for a long time, its pace has significantly increased in the last hundred years due to the burning of fossil fuels.

Fossil fuel - a carbon compound- or hydrocarbon-containing material such as coal, oil, and natural gas, formed naturally in the Earth's crust from the remains of prehistoric organisms, a process that occurs within geological formations.

Greenhouse gas - a chemical compound found in the Earth's atmosphere, such as carbon dioxide, methane, water vapor, and other human-made gases. These gases allow much of the

solar radiation to enter the atmosphere, where the energy strikes the Earth and warms the surface.

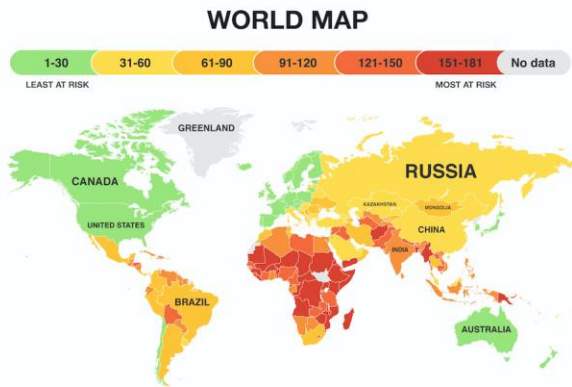
Mitigation - refers to an action that will reduce or prevent greenhouse gas emissions, such as planting trees in order to absorb more CO₂.

Natural disaster - Any natural phenomenon that causes great damage and loss of life.

Background Information

Ever since humans discovered fire, we have had an impact on adding carbon emissions to the environment. However, this impact only became severe with the industrial revolution, where the mass burning of fossil fuels was used to ramp up production globally. From then on, many parts of modern society have become dependent on fossil fuels. For example, the institute for energy research indicated that energy-related greenhouse gas emissions worldwide increased by 2 percent in 2023 to exceed 40 billion metric tons for the first time. While renewable energy initiatives and carbon reduction measures are being implemented, serious doubt is being cast by experts to reach the designated 2030 target to limit the temperature increase to 1.5°C above pre-industrial levels, as set out in the Paris Climate agreement. This means that, no matter what happens, there will need to be provisions regarding the financial damage which has been brought on by climate change.

The financial effects of climate change often manifest themselves as natural disasters such as flash flooding and high tides which cause damage to land and structures. On the one hand there is the financial provisions needed to create protection against certain disasters, such as building sea walls to combat rising tides and sea levels. On the other hand, there is the money needed for disaster relief and needed to rebuild destroyed areas.



As the map shows, areas in the middle areas of Africa, in Asia and by the Caribbean are the most at risk from climate change. A majority of these nations are LEDC's, which is a problem because if the effects of climate change damage the communities and people there, the governments there wouldn't have the money to be able to provide relief aid to their people, and wouldn't have the money to be able to rebuild the damage done to infrastructure there.

Major Countries and Organizations Involved

People's Republic of China (PRC)

The People's Republic of China is by far the largest producer of CO₂ emissions, with some reports claiming that they produce more emissions than the rest of the developed world. They have made commitments to peak its emissions before 2030, and while some believe they are on set to achieve that goal, they are still introducing new coal plants which have been criticised by environmentalists.

United States of America (USA)

The United States of America is also a large contributor to the world's global emissions, contributing 5.06 billion tonnes of carbon emissions in 2022, the second largest behind China. The US government has made pledges to reduce their carbon emission output, but the opposition candidate Donald Trump has previously made some concerning statements around climate change which has environmentalists worried. The United States has also spent lots of money on disaster relief for those affected by climate change and natural disasters.

United Nations Framework on Climate Change (UNFCCC)

The UNFCCC is a UN body dedicated to helping solve the climate crisis. It was created in 1992 and previously had the purpose of opening climate dialogue, but now has the purpose of upholding key climate agreements, such as the Paris agreement. It still continues to organise 2-4 conferences a year, including the Conference of the Parties (COP).

The Intergovernmental Panel on Climate Change (IPCC)

The IPCC is the United Nations body responsible for assessing the science related to climate change. It provides regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.

Timeline of Events

Date	Description
1896	Svante Arrhenius constructs the first climate model of the influence of atmospheric carbon dioxide (CO ₂).
1920–25	Era of large-scale petroleum development, beginning with the opening of Texas and Persian Gulf oil fields.
1930s	Milutin Milankovitch publishes “Mathematical Climatology and the Astronomical Theory of Climatic Changes” to explain the causes of Earth’s ice ages.
1957	Roger Revelle and Hans E. Suess write that “human beings are now carrying out a large scale geophysical experiment” in a paper examining CO ₂ uptake by the oceans.

1960	Curve developed by American climate scientist Charles David Keeling begins to track atmospheric CO ₂ concentrations. CO ₂ concentration in 1960 ≈ 315 parts per million (ppm).
1973	The first oil shock happens.
1974	First evidence of chlorine chemicals being involved in ozone depletion is published.
1979	The second oil shock happens.
1990	First Intergovernmental Panel on Climate Change (IPCC) report notes the pattern of past warming while signaling that future warming is likely.
1992	United Nations conference in Rio de Janeiro creates the UN Framework Convention on Climate Change.
1997	The Kyoto protocol is created with the intent to limit greenhouse gas (GHG) emissions from industrialized countries. The U.S., the largest GHG emitter at the time, does not sign on.
2001	The third IPCC report notes that warming resulting from GHG emissions has become very likely.
2005	The Kyoto Protocol goes into effect. All major industrialized countries sign on except the U.S.
2006	China becomes the world's largest GHG emitter.
2007	The fourth IPCC report notes that effects of global warming are occurring.
2011	Canada withdraws from the Kyoto Protocol.
2015	The Paris Agreement (which replaces the Kyoto Protocol) is adopted by nearly 200 countries, including the U.S.
2016	Paris Agreement goes into effect.

2021

The sixth IPCC report notes unequivocally that human activity has brought widespread and rapid changes to the atmosphere, hydrosphere, and biosphere.

Relevant UN Treaties and Events

The Paris Climate Agreement

The Paris Climate Agreement was a set of key principles which pledge to lower global warming. It is a legally binding international document which was signed by 196 parties at the UN Climate Change Conference (COP 21). The key agreement from it was a pledge from all member states to “limit the temperature increase to 1.5°C above pre-industrial levels.” This agreement is still in effect to this day, but there has been much difficulty internationally to actually reach numbers close to the 1.5°C.

The Katowice climate package

The Katowice climate package was an addition to the Paris Climate Agreement, where more solutions of how to implement the Paris Climate Agreement were made. One key component of this was the financial package, where it detailed “how to provide advance information on financial support to developing countries and the process for establishing new targets on finance from 2025 onwards.”

The Santiago Network

The Santiago Network was established at COP 25 and is ran and facilitated by the UNFCCC. It has the expressed purpose of providing financial support to nations who would lose due to climate change, and to developing countries who experience natural disasters and get ruined due to climate change.

Previous Attempts to solve the Issue

Declaration on Climate, Relief, Recovery and Peace

This was an agreement made at COP 28 with all member participants. It makes an effort to recall previous agreements, including the 2030 Agenda for Sustainable development and the Paris Climate agreement. While it doesn't include any concrete agreements, it does make many efforts to both address the problems that are brought on by climate change and is a conviction for efforts to improve in regard to reducing global warming.

C40 Cities Climate Leadership Group

Sometimes referred to as just C40, this is a collective of megacities (typically cities with more than 3 million people) from around the world which describe themselves as "forward thinking" and want to action on the climate. They lead several initiatives, such as the Cities100 which is an annual publication highlighting the top 100 climate initiatives from C40 cities.

North American Climate, Clean Energy, and Environment Partnership

The North American Climate, Clean Energy, and Environment Partnership is an agreement between the USA, Mexico and Canada, and has the purpose of creating initiatives between member states. Announced in June 2016, it has the expressed purpose of climate change mitigation, clean energy development and environmental protection.

Possible Solutions

Finances for prevention

In any resolution, one key component will be finances provided towards preventative measures for reducing the impact of natural disasters on people and on nations. Providing money for these measures could prove to be a shrewd investment, especially regarding the possible costs incurred for climate relief and aid to repair after a natural disaster.

Aid for relief

After a natural disaster, there is very often mass devastation in the land affected by it. Unfortunately, a lot of natural disasters happen in LEDC's, who don't necessarily have the money to repair damage caused by a natural disaster and be able to provide disaster relief to their people in the aftermath. A resolution should strive to address this problem and establish frameworks for support and aid for the people affected.

Reducing climate change

At the core of the problem, the reason why any of the disasters happen to the degree they do is because of climate change and the worsening climate of the planet. While existing climate agreements are in place, their conclusions are currently not being abided by and in some countries they have not been taking action to achieve climate goals. A resolution may aim to address this.

Bibliography

<https://www.climaterealityproject.org/blog/key-terms-you-need-understand-climate-change>

<https://www.instituteforenergyresearch.org/international-issues/2023-set-records-in-global-fossil-fuel-use-and-carbon-dioxide-emissions/>

<https://unfccc.int/about-us/about-the-secretariat>

<https://unfccc.int/process-and-meetings/the-paris-agreement/katowice-climate-package>

<https://unfccc.int/process-and-meetings/the-paris-agreement>

<https://unfccc.int/>

https://unfccc.int/kyoto_protocol

<https://unfccc.int/tools/cancun/index.html>

<https://sustainabledevelopment.un.org/frameworks/addisababaactionagenda>

<https://unfccc.int/topics/adaptation-and-resilience/workstreams/loss-and-damage/warsaw-international-mechanism>

<https://unfccc.int/process-and-meetings/the-paris-agreement/the-glasgow-climate-pact-key-outcomes-from-cop26>

<https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030>

<https://www.weforum.org/agenda/2023/01/climate-crisis-poor-davos2023/>

<https://www.bbc.co.uk/news/world-58080083>

<https://www.wri.org/insights/2023-ipcc-ar6-synthesis-report-climate-change-findings>