

Committee: Economic and Social Council (ECOSOC)

Issue: Preparing for the future in the face of climate change and weather-related disasters

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INTRODUCTION

The global climate change should now be regarded as unequivocal; sadly, however, some countries still have not accepted the impact that it has and will continue to have. There is a constant rise in sea levels and a change in ocean temperatures. The Arctic will most likely become ice-free. It has been estimated that by the year 2050 the ice will have melted, hurricanes will form into a stronger force alongside many more modifications and changes in the climate. After years of abusing the earth and all it provides, some consequences now need to be addressed. When global warming was announced as a problem and the consequences it would bring in the long run, governments and organizations, including NGOs, started conducting research and preparing for the ramifications.

The situation breaks down into two categories which then intertwine. First, the damage to the environment is deleterious since it will leave a permanent mark on this planet endangering the survival of its species and the nature surrounding them. The ice is melting, ocean levels are increasing, more wildfires, hurricanes, droughts, etc. all lead to the phenomena of global warming which is created by the effect of human activity. Over the centuries, people have reformed the meaning of the natural environment by abusing it and burning fossil fuels and other chemical substances harmful to the environment. The extensive use of gases and the carbon dioxide (CO₂) it releases in the air has increased the global temperature of the Earth. On average, the Earth will become warmer which leads to evaporation and the precipitation of toxic gases.

Alongside these changes, there will be a rise in weather-related disasters caused by warmer climates. Each country will be more vulnerable to catastrophe. It is a disadvantage for LEDCs which do not have the appropriate funds to supply rebuilding more resilient infrastructure, road networks and supply networks that will be prepared with aid after a disaster takes place, securing in a way the well-being of the country's citizens. MEDs, on the other hand, are not risk-free because there is the same likelihood that a disaster will happen, such as the heatwaves in Europe or the intense fires in Australia and droughts in the United States.

Preparing for the future means preparing for a world where disasters occur more frequently, where the news constantly reports damaged and destroyed cities, where people are personal victims of disasters, where businesses collapse. Since there is no way to avoid such cataclysmic disasters the best thing to do is prepare for them appropriately.

Studies like the one on "on the relation between weather-related disaster impacts, vulnerability and climate change"¹ analyze the trends in the data gathered in all continents and the equivalent climate calculating the large differences and weather abnormalities because of climate change.

¹ Research paper by Hans Visser, Arthur C. Petersen and Willem Ligtvoet on the issues of "on the relation between weather-related disaster impacts, vulnerability and climate change"
https://www.researchgate.net/profile/Hans_Visser3/publication/264037424_On_the_relation_between_weather-related_disaster_impacts_vulnerability_and_climate_change/links/0046353c913430b3ce000000/On-the-relation-between-weather-related-disaster-impacts-vulnerability-and-climate-change.pdf



Figure 1: A picture from Haiti and the consequences of a flood from a climate disaster

DEFINITION OF KEY TERMS

Climate change: the transformation, in the remote future, of climate patterns on Earth caused by human activities and their interference, in relation to the sudden rise in temperatures and unsettled weather. According to NASA, “Climate change is a long-term change in the average weather patterns that have come to define Earth’s local, regional and global climates”²

Mitigation: To reduce the painfulness and the severity of an unwanted situation e.g. after a weather disaster;

Weather-related disasters (meteorological disasters): disasters caused by extreme weather conditions that affect weather conditions in the long term;

Global warming: Earth’s long-term climate rise in temperature and heating up because of human indifference, as mentioned in the encyclopaedia Britannica “Global warming, the phenomenon of increasing average air temperatures near the surface of Earth over the past one to two centuries.”³

BACKGROUND INFORMATION

² “Overview: Weather, Global Warming and Climate Change.” NASA, NASA, 28 Aug. 2019, climate.nasa.gov/resources/global-warming-vs-climate-change/.

³ Selin, Henrik, and Michael E. Mann. “Global Warming.” *Encyclopædia Britannica*, Encyclopædia Britannica, Inc., 27 Apr. 2020, www.britannica.com/science/global-warming.

“Overview: Weather, Global Warming and Climate Change.” NASA, NASA, 28 Aug. 2019, climate.nasa.gov/resources/global-warming-vs-climate-change/.

Climate change is an alteration in the Earth's climate and weather which has developed negatively over the past decades because of people negligence and ungratefulness. In the 1800s experiments suggested that carbon dioxide and other gases could 'cloud' the Earth and pile up leading to global warming. At the beginning of 1990, people were not aware of the problems it would cause, but rather they would encourage the 'warming' of the planet thinking that it would be better for the colder regions of Earth. In 1988, the hottest summer until then was recorded as well as widespread drought and wildfires in the United States. That is when the United Nations created the International Panel on Climate Change (IPCC) and global warming became a real phenomenon calculating the ramifications of a warmer climate.

Weather Disaster: impact on people

With rising temperatures, more droughts and intense storms are possible. As sea levels rise and water is evaporated into the atmosphere, 'fuel' for powerful storms is developed, leading to disastrous consequences for humankind as well as the environment. For instance, after an earthquake or a drought, an area can be wiped out leaving climate refugees who are forced to leave their homes due to abrupt natural disasters. Studies reveal that by the end of this century there will be more the two billion cases of environmental immigrants who have had to leave their habitats. A pressing issue is also public health. Areas that have suffered natural disasters must properly be examined and cleared before rebuilding can take place because people contract diseases after floods and tsunamis. Without proper camps with running water, food and proper hygiene, it becomes a public health hazard. Lastly, after a disaster, people might suffer from post-traumatic stress disorder (PTSD). A weather disaster leaves its mark on the infrastructure as well; many countries cannot handle the costs of funding a post-disaster clean-up creating a huge gap in the economy.

Weather Disaster: impact on environment

The environmental impact after a weather-related disaster can be catastrophic. It can occur all over the world to different extents affecting all countries and their governments. An example that left millions homeless was the Tohoku earthquake in Japan that developed into a massive tsunami which led to thousands of people drowning and the Fukushima nuclear plant explosion which released radioactive substances harmful to humans and the environment. Historic artefacts became ruins, land which provided food was left barren; to rekindle such land, billions had to be spent. In the United States alone, 520 billion USD is the cost of rebuilding after climate-related disasters alone.

Climate change is not necessarily an LEDC issue since major disasters, such as heatwaves all over Europe, tsunamis in Asia, tornados in South America and massive thunderstorms in South America, have increased because of the change in temperatures and the warming of the planet. The lack of resilient buildings and infrastructure and the absence of adaptation to eco friendlier ways of living have to change. Acclimatising to a world where the environment is overburdened and misused is the appropriate next step.

Summing up, there is no possible way to ignore or even reverse the damage of climate change, but rather accept mistakes and tackle the issues. MEDs have the advantage of being able to afford such changes and improvements in their systems to combat the rising temperatures and the affiliated disasters, but for the issue to be addressed slowly but steadily, worldwide organizations alongside MEDs should set aside funds and implement technological innovations. As there is no way to avoid climate change, preparing for it and its repercussions is the best course of action.

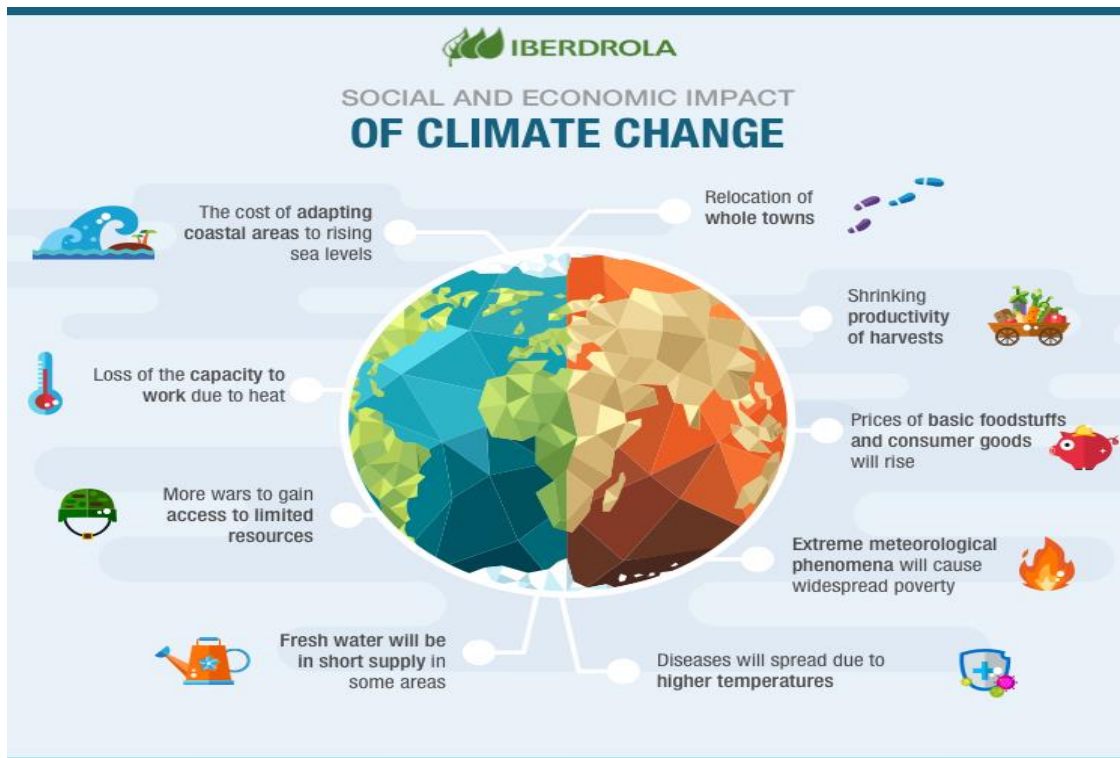


Figure 2: Social and Economic Impact of Climate Change

MAJOR COUNTRIES AND ORGANISATIONS INVOLVED

United States of America

In 2019, the US faced a very active year of weather disasters and climate changes. 14 cases ranging from earthquakes to floods and tropical cyclones cost billions of dollars in damage. The Federal Emergency Management Agency (FEMA) is a USA agency which handles any sort of disaster including weather changes. Alongside it, there is the National Oceanic and Atmospheric Administration (NOAA) which informs people and prepares them in case of any weather and climate variability. The only pre-disaster measure the government takes as a country is to inform its citizens verbally and through the internet while each state takes further measures of communication separately according to the type of disaster e.g. the southeast has many hurricanes. The United States mainly helps by proving disaster funds to the victims of a weather disaster. There are business loans, personal ones and unemployment assistance.

Norway

Norway is one of the most prepared countries for a climate- weather disaster. The states Directorate in charge of security and preparedness (DSB) prepares citizens after major storms and droughts by being able to maintain electricity, water and communications for at least two days. They have many means of communication to broadcast and show the importance of being appropriately prepared in case of a disaster and how to move forward from one. Right behind Norway follows Finland, Denmark, New Zealand.

Mozambique

Africa is one of the most vulnerable continents that suffers from weather disasters despite the fact that they contribute least to global warming. When a disaster takes place, the land suffers, people lose their homes and crops are ruined. While people are forced to move within their country, the risk of an outbreak of a disease increases dramatically and with a low level of public health, many lives are lost and a huge strain on each country's economy is placed. Acknowledging the problem, the African Union established the African Risk Capacity (ARC) which provides technical and institutional support for warnings before and contingency planning after a weather disaster. It builds more resilient infrastructure to respond to extreme weather conditions. 16 out of 34 countries are a part of the ARC; expanding to every county in the African continent will be beneficial. More specifically, in 2019 Mozambique was hit by a cyclone that caused large-scale destruction including homes, lands and businesses leaving them all in ruins. Because of an increase in temperature, multiple hazards can be observed; its coastline and river delta are easily susceptible to more disasters.

China

China is one of the biggest countries in the world that causes pollution and releases harmful gases into the environment. Pollution is a side effect of climate change which leads to climatic disasters. The Chinese government takes early warnings of geological disasters and pre-disaster measures in order to protect their citizens as well as deal with the consequences of their actions. In the case of a disaster, post- disaster reconstruction happens in an orderly fashion with the repairing of buildings, hospitals and essential facilities for the proper function of society and in the meantime the provision of camps for environmental victims reassures them that their homes will be restored and can be inhabited once again.

World Meteorological Organization (WMO)

WMO is a United Nations agency which is dedicated to the coordination and cooperation of countries exchanging information about weather changes and the atmosphere. Its essential work focuses on the improvement of human resources and technological advancements as well as institutionalizing bigger capacities and infrastructure. Exchanging data and technological updates is a key foundation in this organization. It conducts research that will help improve the lives of people around the globe.

National Voluntary Organizations Active Disaster (VOAD)

VOAD is an organization funded by the UN after the lack of an effective response to hurricane Camille (a category 5 hurricane) in 1969. Before VOAD, there were many independent organizations that helped the survivors of weather disasters but there was no communication or collaboration. With VOAD, the four key values are communication, collaboration, coordination and cooperation. With the help of independent volunteers, survivors of disasters are fully supported.

TIMELINE OF EVENTS

1992	The UN created the Framework Convention on Climate Change (UNFCCC) to discuss and prevent climate change. Signatories are 200 countries which agree to protect the climate system for present and future generations.
1994	The conference of parties (COP) is there to assess progress reports to the UNFCCC ensuring that they meet their goals each time.
2008	Protection of persons in the event of disasters is a UN treaty addressing the collateral damage e.g. humans after a weather disaster takes place.
2015	UN world conference on disaster risk reduction in Sendai, Japan to discuss improvements and further action such as voluntary commitments from stakeholders to implement certain policies
2020	GENEVA-working group II of the Intergovernmental panel on climate change (IPCC) rescheduled conference due to COVID-19 where the impact, adaptation and vulnerability of climate change is discussed

UN INVOLVMENT

At the ‘Earth Summit’ held in 1992, climate change was first introduced to the United Nations as a global problem. Consequently, the UN created the Framework Convention on Climate Change (UNFCCC) to discuss and prevent climate change. The conclusion reached was that no human interference should affect the environment. Since then, the UN has created many sub-panels and organizations that specify and focus on the causes of climate change and how to adapt to it. The 2015 conference on disaster risk reduction, which took place in Japan, discussed climate risk management with the use of sustainable resources and developments. The first one had taken place in 1994, then 2005 and the most recent one in 2015, each time bring together government officials and such to discuss the methods in order to strengthen their ‘battle’ against climate change with an eco-friendly approach.

The UN Office for disaster risk reduction is there to oversee the progress and the implementation of everything said in Sendai. In 2030, the whole progress of preparing for risks properly will be reviewed. The goal is to ensure a safe environment and a sustainable future. The majority of countries are a part of this conference, but each country has to then take the measures suggested and implement them in their country in order to see a difference and a better handling of the more frequent disasters to come.

When it comes to climate change as a whole, the International Panel on Climate Change has, as its sole purpose, to create policies on climate change, identify the challenges and implications of future problems and risks as well as the best possible way to adapt to and mitigate the situation.

PREVIOUS ATTEMPTS TO SOLVE THE ISSUE

Since the 1990s, the warming of the planet has been addressed as a problem that affects the environment and people. With the sudden increase in temperatures and the ever-so frequently rising catastrophies and disasters due to global warming, countries have prioritized this issue realizing that if there is no change in behaviour there will be serious consequences on humankind. Each continent has its own treaty outlining what has to be done in their region just as individual countries do the same, but there are also many global treaties which highlight the adaptation to climate change and the requirements to focus on disaster risk reduction. Climate change has created different types of problems which are handled in separate negotiations. There is the ocean, the landmass and the atmosphere which are polluted and managed in different ways. So far, countries have followed a pattern of basic steps which are: carrying out a risk assessment to understand the extent of the disaster and the extremity of the case, prioritizing the areas which are more in need, informing the public and raising awareness before it is too late, establishing and enhancing partnerships with NGOs and other countries, highlighting the important measures each individual should take as well as documenting and sharing experiences on social media which will be broadcasted and help reach more people faster. While this issue cannot be defeated in the short period because modifications in the lifestyle of people have to change dramatically (from fossil fuels and gases to eco- friendly ways of producing electricity and other needs), if the appropriate measures are taken and applied there will be a healthy response and recovery of the damaged areas.

POSSIBLE SOLUTIONS

The solutions suggested below are just for guidance when writing your resolutions. Please only take them as reference.

This is an issue that can be easily addressed with the correct measures. Delegates should mention the importance of appropriately handling weather disasters. Cities should take the initiative and build new infrastructure that is stronger and more resilient in the case of floods or other disasters that leave damaged buildings, which should be insured, and there should be funds and loans to rebuild; although this is a costly change, it is the proper investment in the long run. If a city or town can receive the funds in a short period of time after a disaster, then the sooner people will be able to go back to normality meaning going back to work. In this way, the economy does not stay 'frozen' for long. Smart housing plans should be put in place which are adaptable to various disasters. There should be camps and underground shelters where people can gather with supplies and aid until the effects of a disaster have died down.

The industry should now adapt to more eco-friendly products and services to decrease a higher rise in global temperatures. Natural barriers like forests and wetlands can be useful; if they are used accordingly, they can help implement a sustainable environment.

Of prime importance is proper communication when it comes to the prediction of weather disasters. Thereafter, there should be a befitting way to inform the public without creating chaos and panic since they should be well prepared and informed. There should be easy and clear instructions of what to do to prepare for an emergency and, in the aftermath, psychological services to heal the trauma and temporary housing and first aid should be provided. In order to succeed in preparing for weather disasters as a result of climate change, the best measures are to protect the people and constantly remind them of the increase frequency of these disasters and how each country should do its duty to protect its citizens.

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