

Forum: United Nations Development Programme (UNDP)

Issue: Measures to address the exploitation of carbon emissions created by manufacturing.

Student Officers: Nuria Fajardo and Tom Lee

Position: Chairs of UNDP

Introduction

Global warming has been a rising issue through an increase in average atmospheric temperature, creating adverse effects on the Earth's overall climate and weather systems. The earth's average temperature has risen more than 2 °F (-16.67 °C) over the last hundred years. According to studies by Michael Anderson, 82% of human-created carbon emissions come from fossil fuels, and 18% come from deforestation. The burning of fossil fuels dates back to the industrial revolution due to the need for electricity production and transportation. Research and data on the greenhouse effect of gases have been taking place since 1859. In 1939 engineer Guy S. Callender published a study that suggested an increase in carbon dioxide emissions from fossil fuels creating global warming.

At the time, many scientists were skeptical about these findings and argued that natural changes and atmospheric circulation alterations were due to the climate, not carbon emissions. In March 1958, Charles Keeling, a US climate scientist, started measuring atmospheric carbon dioxide levels in Hawaii. With the measurements acquired from the studies, Keeling confirmed that atmospheric CO₂ levels were rising. Later, in 1977, the US National Academy of Sciences issued a report called "Energy and Climate," stating that burning fossil

fuels were increasing atmospheric CO₂ associated with an increase in global temperatures. In June 1988, a scientist from the National Aeronautics and Space Administration (NASA) called James Hansen presented a testimony to the US Senate stating that the increase of carbon emissions was responsible for warming up the earth and “changing our climate.” Some scientists at the time argued that natural processes would balance out the warming caused by increased carbon emissions.

Carbon emissions created by manufacturing can cause severe consequences on humans and the environment. Global production sectors are responsible for one-fifth of carbon emissions, meaning they consume 54% of the world's energy sources. The impacts of climate change can create displacement and affect living conditions, limiting natural resources such as potable water. These carbon emissions can also impact crops and livestock due to poor conditions, such as sweltering and dry weather or cold and wet environments. Climate change, therefore, creates conditions that aggravate tensions and build on the potential for conflicts. Extreme weather events such as atypical rainfall, droughts, environmental damage, and sea-level rise have caused more than 20 million people to leave their homes each year. In December 2018, the Global compact of refugees affirmed an overwhelming majority in the UN General Assembly. This issue is of great importance as weather-related disasters influence individuals worldwide. In addition, people who are already displaced for reasons other than natural disasters usually live in climate change hotspots; in these places, individuals can be in danger of secondary displacement, reducing their chances of returning home.

Definition of Key Terms

Exploitation

mistreating individuals or groups to benefit from such action.

Manufacturing

Process of making products from raw materials mainly involved in the secondary sector.

Industrialization

The process by which an economy is transformed from a primary sector (agricultural goods) to a secondary sector (manufacturing goods).

Environmental Degradation

Environmental Degradation is the deterioration of the environment due to the depletion of resources such as water, air, and soil. It also refers to the destruction of ecosystems and wildlife.

Refugee

A person who has been forced to move out or leave their home or nation due to a natural disaster, war, or other external conflicts involved within the country.

Climate change

A change in global or regional climate patterns due to increased greenhouse gases and carbon dioxide sent up into the atmosphere.

Greenhouse gases

A type of gas that contributes to climate change due to the absorption of radiation, such as carbon dioxide and chlorofluorocarbons.

Carbon dioxide (CO₂)

A colorless and odorless gas in the atmosphere that is usually formed by respiration, decomposition of compounds, chemical reactions, and human activities, such as manufacturing.

General Overview

The industrial revolution

Since the industrial revolution, which happened during the 19th century, presented a new situation in the world. More power, manufacturing, and machines brought great inventions and a higher quality of life. The manufacturing market has one of the most significant impacts on the economy that we cannot ignore, as it covers around 16% of the world's economic activities. And as industrialization was getting more common in many countries, people found a way to communicate with each other and facilitate their trading process with transportation and high capital-intensive manufacturing.

Although industrialization brought a great boon to many countries, there were consequences that we could not avoid. One consequence is carbon emissions. As we move throughout the future, it is estimated that the world will produce more carbon dioxide. Consumers are unaware of this situation, as the effects of carbon dioxide are minimal each year. While awareness of this situation has improved, countries that rely heavily on manufacturing will continue manufacturing, worsening the situation.

Causes of displacement of climate refugees & internal displacements

Numerous countries heavily depend on the impacts of climate change on human rights, and the displacement of populations are numerous and severe. The population is evacuating their country to evade the harsh effects that climate change can present. This displacement occurred due to climate change's impact on the world. Effects include droughts, extreme weather conditions, artificial disasters, and natural disasters.

Climate refugees and internal displacements have become controversial. These consequences can cause deaths or refugees to suffer in different locations, such as facing violence, other conflicts involving sex trafficking, forced labor, and economic problems. These issues are very notable as there are countries strictly opposing to accept refugees into their country. According to UNHCR, international relations and policies significantly impact this, as they may limit the protection of possible refugees who need help, such as temporary shelter and food.



source: EcoWatch

Causes of factory-produced carbon emissions to the environment

Unsurprisingly, factories contribute nearly 15% of total carbon emissions annually. These carbon emissions are known to contribute to climate change, a rising issue since the start of mid 20th century. As time progresses, the effects of climate change are intensifying, which means that climates are getting more extreme -either getting colder or warmer due to greenhouse gases.

Not only does this cause internal displacements, but it also causes the extinction of certain animal and plant species that are important to each location, serving their purpose. Biodiversity has the ability to adapt to the environment's change, but not how fast it is changing today. The world of biodiversity is going down at an alarming rate as 25,000 species of animals and plants have gone extinct. The extinction of animal and plant species can cause an alteration in human health and accelerate the effects of climate change. For example, kelp forests can provide habitats for essential animal species and absorb carbon dioxide from the atmosphere. However, these kelp forests are being deforested by humans each year.

Health issues caused by carbon emissions

Carbon emissions caused by factories can evoke several health defects and issues in humans. It mainly brings issues upon respiratory problems, such as chronic respiratory diseases, lung cancer, heart disease, and many others. According to research by Harvard University, in 2018, 18% of the global deaths were involved by exposure to burning fossil fuels and their particles, which primarily consist of carbon dioxide. Researchers also found that countries with the highest fossil fuel-related emissions have the highest mortality rate. This includes Eastern North America, Europe, and South-East Asia.

Major Parties Involved and Their Views

China

According to documents released by Chinese authorities on China's working to achieve carbon neutrality aims, authorities aim to gradually increase the use of non-fossil fuel energy consumption to about 20% by 2025, about 25% by 2030, and over 80% by 2060. Displacement and resettlement have previously been used as a strategy to adapt to climate change in China. Hydro projects in China have gained political and institutional support. The central government wishes to 'actively develop' hydropower and other new energy as an important way to adapt to climate change, thus reducing greenhouse gas emissions. Within the past decade, China has tested new ways of enforcing environmentally caused mass migrations and creating towns to support the mass amount of displaced people. In 1983 China launched a mass resettlement plan for ecological migrants, which has grown to become the world's most extensive climate migration program in recent years. The program aims to depopulate high-risk areas and relocate rural citizens to bigger cities with fewer ecological risks.

The United States

The United States, throughout history, has taken different approaches when addressing climate change and participating in GHG reduction under the 1992 United Nations Framework Convention on Climate Change. In 2015, international negotiations led to adopting the Paris Agreement (PA). President Obama did not submit the PA to the Senate for advice and consent when accepting. In June 2017, President Trump announced the removal of the US from the PA. However, in November 2020, President Biden accepted the PA, and the US became a party on February 19, 2022. President Biden announced the target to reduce net GHG emissions by 50%-52% below 2005 levels by 2030.

India

Prime minister Narendra Modi talked about five commitments of India to combat climate change, announcing that it aims to achieve the target of net-zero emissions by the year 2070, during the United Nations COP 26 at Glasgow. As of now, climate refugees are not recognized under any specific laws. As a result of climate disaster, displaced people have no identity nor recourse to rehabilitation.

Russia

According to a statement made by the Russian Federation on the Global Compact, that defines its adoption by the Russian Federation, it is stated that “we also believe it is inappropriate to refer to the activities and recommendations of the Agenda for the Protection of Cross-Border Displaced Persons in the Context of Disasters and Climate Change and the Platform on Disaster Displacement.” Today, no reliable and universally recognized scientific evidence that points to the direct correlation between climate change and displacement and the predominance of environmental factors in displacement. Besides, the platform's work does not have the support of all countries, and its conclusions have not been approved under the auspices of the relevant entity, the UN Framework Convention on Climate Change.”

Japan

Japan has officially acknowledged climate change and that efforts to reduce greenhouse gas emissions must happen. However, climate security discussions are not discussed among Japanese government officials and politicians. Regarding displacement and climate-displaced people, the Japanese government has begun pre-positioning supplies in evacuation centers since 2018 rather than dispatching them after a disaster. In addition, Japan has recognized “at-home evacuees” who remain in homes after they have been

damaged due to a disaster. Despite being the world's third-largest economy, Japan has one of the most burdensome refugee policies due to geographical, historical, and societal reasons. Japan focuses on donations to UNHCR, the fourth largest government donor.

Brazil

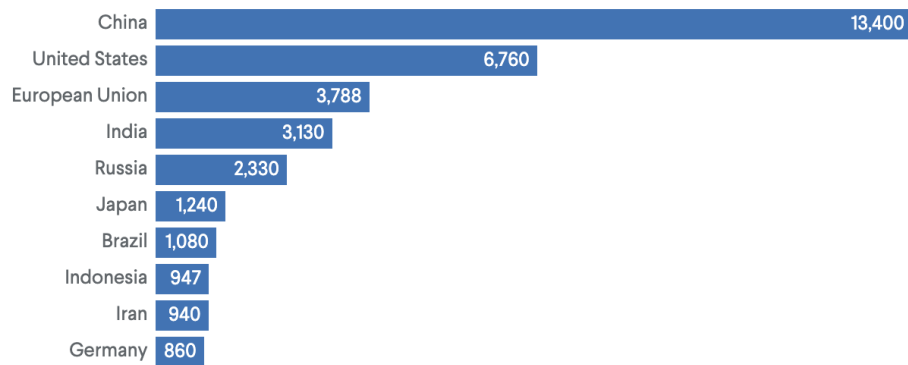
In prior years, between 2005 and 2012, Brazil ran a successful campaign to help reduce deforestation by about 80%. However, with the election of Jair Bolsonaro, there has been a change in the country's position in regards to climate change. In November 2018, Brazil withdrew its offer to host the climate conference citing the government transition process and budgetary constraints. Bolsonaro believes that environmental protections challenge the development of the economy, and considerations about the planet should not inhibit industry. He has also threatened to withdraw Brazil from the Paris agreement.

European Union

Recently, in February 2022, EU foreign affairs ministers approved conclusions on the outcomes of the COP26 climate conference and agreed on the priorities of the EU regarding climate diplomacy. Ministers reiterated the need for human rights to be integrated systematically into climate change action, as well as calling upon other developed countries to meet the collective commitment to mobilize \$100 billion per year to mobilize the private sector and shift the global financial flows towards sustainable investments

Top Greenhouse Gas Emitters in 2018

Emissions in metric tons of carbon dioxide equivalent



Note: EU data does not include the United Kingdom.

source: Climate Watch

Timeline of Events

Date	Description of event
1970	The World Meteorological Organization (WMO) began to express concern about carbon dioxide emissions and their negative consequences on the atmosphere.
1988	The WMO and United Nations Environment Programme (UNEP) established the International Panel on Climate Change (IPCC), intending to investigate and report scientific evidence on climate change, including international responses to the issue
1990	IPCC released its first assessment report, which helped in the drafting of the United Nations Framework Convention on Climate Change (UNFCCC) in 1991.
1994	One hundred sixty-six nations signed the UNFCCC at the Earth Summit in Rio de Janeiro, coming into force in 1994. The framework did not contain any targets to reduce greenhouse gas emissions; instead, it contained vital principles that have been the bases of international climate change debates and processes.
1997	The Conference Parties (COP) meeting in Kyoto, Japan, in 1997 takes place. Delegates agreed upon the Kyoto Protocol, establishing and developing country emissions targets for 2008-2012. The treaty required developed countries to reduce emissions by an average of 5 percent below 1990 levels and established a system to monitor progress.

2005 The Kyoto Protocol took effect, but without significant emission producers such as Russia and the US support, it became a symbolical agreement between the 141 nations who ratified it.

2010 Pressure increased to reach an agreement in Mexico during COP16 after its failure in Copenhagen. As Nasa announced that 2000-2009 had been the warmest decade ever recorded. Countries committed agreed upon the Cancun agreements, to keep global temperature increases below 2°C. About 80 countries, including China, India, and the US as well as the European Union submitted emissions reduction targets and actions agreeing on stronger mechanisms to monitor progress.

2015 The Paris agreement required all countries to set emission reduction goals. Countries are able to choose their own targets and there are no enforcement mechanisms that ensure these targets are met. Countries are also supposed to submit targets. One hundred ninety-six countries agreed upon the Paris agreement. The mission of the agreement is to keep global temperatures below 2°C and make efforts to keep it to 1.5 °C.

2021 More than one hundred countries met the deadline to submit updated NDCs before the COP26 in November. Some of the top emitters proposed more ambitious targets. President Joe Biden announced in July that the US will aim to cut emissions to half of its 2005 level by 2030. The Glasgow Climate Pact calls for countries to reduce coal use and fossil fuels subsidies and pressures governments to submit reduction targets by the end of 2022.

UN involvement, Relevant Resolutions, Treaties, and Events

The UNHRC recognizes the consequences of climate change and its seriousness, including the climate refugees. Many are being displaced from their homes by the effects of climate change, which is influenced by manufacturing.

- On May 27th, 2016, The United Nations Environmental Assembly adopted the resolution of **(UNEP/EA.2/Res.15)**. They adopted and created various programs such as the United Nations environment programme.
- In 1987, the [Montreal Protocol](#) was signed. This protocol was a success as every country was in agreement and was able to eliminate nearly 99% of the substances that damaged the ozone layer.
- In 1992, the [Landmark Accord](#) treaty was signed. This treaty was the first treaty directly related to climate change. It was explicitly aimed at stabilizing the greenhouse gases in the atmosphere.
- In 2005, the [Kyoto Protocol](#) was signed. This protocol required the nations to reduce their carbon emissions by 5% below 1990 levels and established a system to monitor the country's progress. However, this protocol was one of the least impactful, as China, India, and the United States, the most prominent manufacturing nations, ended up either withdrawing or not signing the protocol.
- In 2015, the [Paris Agreement](#) was signed. This treaty required the governments to set emissions-reduction pledges, known as national determined contributions (NDC), preventing the global average temperature from rising 2°C above preindustrial levels

Evaluation of Previous Attempts to Resolve the Issue

In the past decades, there have been numerous attempts to address and resolve the issue of carbon emissions created by manufacturing. As stated above, there were numerous treaties, resolutions, and events. However, this issue still stands in our society today. According to the United Nations High Commissioner for Refugees (UNHCR), there are, on average, nearly 21.5 million climate refugees annually. This has become an increasingly prominent issue as some countries do not accept refugees. Therefore, the climate refugees are remained with nowhere to stay. Also, many nations and companies are attempting to provide sustainable machinery that produces fewer carbon emissions than the original machinery.

Although UNDP recognizes various nations' attempts to reduce carbon emissions, there is also a need to mention strict regulations regarding carbon emissions resulting in multiple closures of manufacturing factories. Putting aside the adverse effect, the UNDP does think that the contribution among various nations is and was essential to take a big step towards resolving this issue. The contribution among various nations must continue to improve society's current situation.

Possible Solutions

To recognize and address this issue, delegates must acknowledge that manufacturing can be refuted positively from the perspective of manufacturing countries as it allows further economic development; however, it must be mentioned that other manufacturing can lead to severe circumstances, which have already been initiated. As previously mentioned, carbon emissions caused by manufacturing factories are one of the leading causes of climate change, adversely impacting society and the environment. Delegates must ensure that the rights of climate refugees are ensured and treated fairly as the expulsion of their area is not on themselves. Therefore, heavily manufacturing nations must support and aid the climate refugees in their responsibility. Additionally, nations should seriously contemplate about allowing climate refugees to be accepted in their nations.

In addition, manufacturing countries need to consider implementing policies that limit the adverse impact that the manufacturing factories are giving; such solutions can include the following:

- Limiting the carbon emissions created by a single factory
- Initializing further inspection of factories with certified professionals
- Supporting factories with sustainable manufacturing methods and capital equipment
- Monitoring and training the activity of factory workers and ensuring that they are correctly performing the activities

As factories might lose productivity adopting new methods and equipment, the nation's government must provide grants and subsidies to support their manufacturing process during the adaptation and training period. Therefore, financial resources are required to proceed and initialize this specific solution.

Sustainable Development Goal (SDG)

This specific issue corresponds to Goal 13, which refers to climate change. This specific goal promotes taking action to combat climate change and practicing environmental and social sustainability. Addressing exploitation of carbon emissions produced by the manufacturing industry will enable a more sustainable future for the environment and society. These sustainable solutions will promise such goals as further economic growth in a sustainable manner, protection of the population, and providing an environment for animals to thrive in the ecosystem.

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Appendix

- I. Investigation and plan of action by the UNDP towards the natural disaster known as El Niño, which is caused by climate change

http://www.undp.org/content/undp/en/home/librarypage/climate-and-disaster-resilience-/undp_s-response-to-el-nino-and-la-nina--from-recurring-crisis-to.html

- II. Introduction to climate change and disaster displacement

<https://www.unhcr.org/climate-change-and-disasters.html>

- III. Detailed analysis on climate change and its effects exclusively on displacement refugees with examples

<https://www.unhcr.org/news/stories/2019/10/5da5e18c4/climate-change-and-displacement.html#:~:text=The%20interplay%20between%20climate%20conflict,or%20man%2Dmade%20disasters%20alone>

