

HMUN 2020

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Issue:

Discussing the increase in global hunger due to climate change

Forum:

Human Rights Council (HRC)



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Position:	President & Deputy President

Introduction

Our climate is changing constantly. People started experiencing the consequences of this climate change in many ways such as; agricultural inefficiency – crop yields decrease –, economic depression and most importantly global hunger. People are affected by climate change during their lives as well. The weather changes where it causes drought, flooding, and extreme temperatures. For example, in July 2019, it was the hottest month ever to have been recorded in the world. The consequence of this period was drought. Changes in our environment cause our lives to become more difficult, as the environment changes our living conditions need to change according to it. Most of the governments are not taking necessary actions according to the problems happening due to climate change. According to the UN's Food and Agricultural Organization (FAO), climate change is among the leading causes of rising global hunger. "The number of hungry people grew for the third year in a row in 2017, reaching a total of 821 million worldwide" stated FAO. Most hungry people—827 million—live in undeveloped regions, where the prevalence of undernourishment is estimated at 14.3%.

The problems of our world and the concerns of people in our society are mostly represented by NGOs or other organizations. These organizations' purposes are mainly to raise public awareness so that people will take action with the governments upon the issue. A report by the Intergovernmental Panel on Climate Change found that to avert the worst impacts of the climate crisis, the world needs to roughly halve global emissions by 2030, and reach net-zero by 2050 or earlier.

Alongside policy changes, governments of all countries must make fundamental changes, such as promoting renewable energy, moving away from unsustainable agricultural practices and implementing rewilding programs.

Definition of Key Terms

Climate Change

"Climate change means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere

and which is in addition to natural climate variability observed over comparable time periods." (UNFCCC, 1994)

Adverse Effects of Climate Change

"Adverse effects of climate change means changes in the physical environment or biota resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare." (UNFCCC, 1994)

General Overview

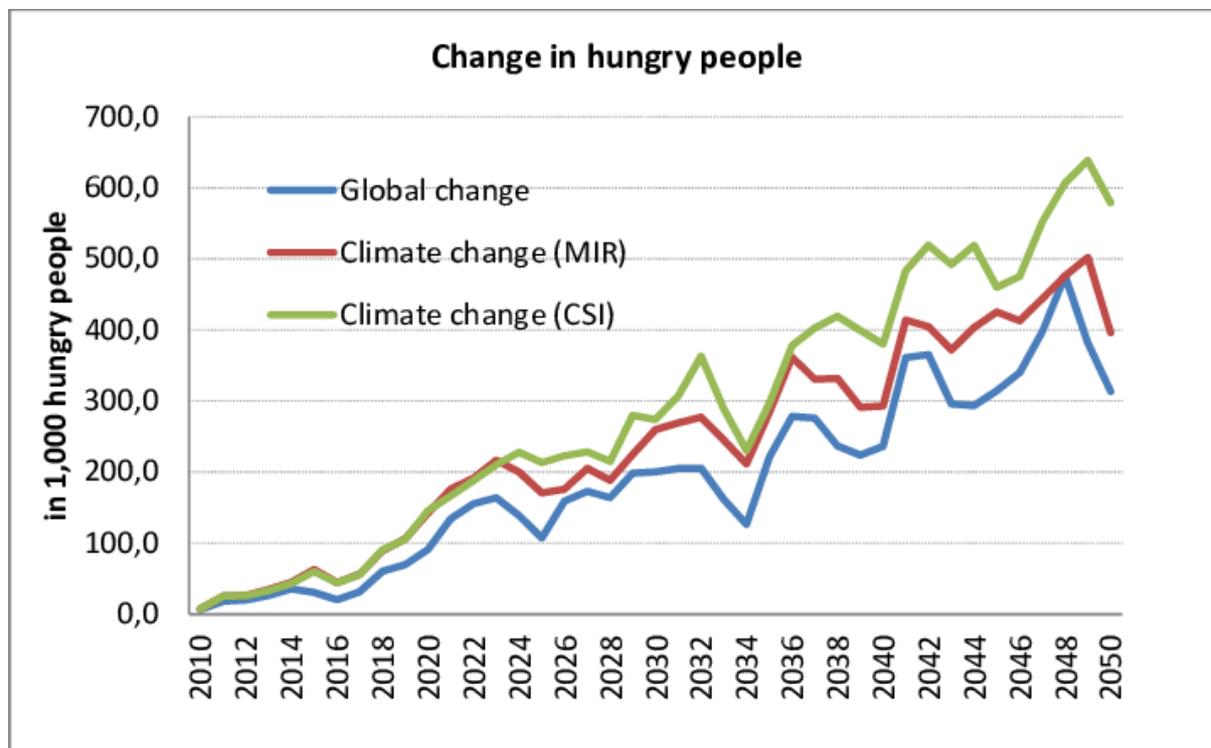
Climate Change - Reasons

"The livestock sector contributes significantly to climate change. In fact, 14.5 percent of all human-caused greenhouse gas (GHG) emissions come from livestock supply chains. They amount to 7.1 gigatonnes (GT) of carbon dioxide equivalent (CO₂-eq) per year." (FAO, Livestock & Climate Change, 2016) Besides carbon dioxide emission, the greenhouse effect plays a crucial role in climate change and the rising temperature of the globe. As for the greenhouse effect, it traps heat within the atmosphere and hinders the possibility of the heat to escape. Certain gasses, known as the greenhouse gasses, block the heat to be released which increases the level of temperature. "Water vapor is the most abundant greenhouse gas, but importantly, it acts as a feedback to the climate. Water vapor increases as the Earth's atmosphere warms, but so does the possibility of clouds and precipitation, making these some of the most important feedback mechanisms to the greenhouse effect. Carbon dioxide (CO₂) is a minor but very important component of the atmosphere, carbon dioxide is released through natural processes such as respiration and volcano eruptions and through human activities such as deforestation, land-use changes, and burning fossil fuels. Humans have increased the atmospheric CO₂ concentration by more than a third since the Industrial Revolution began. This is the most important long-lived "forcing" of climate change. Methane is a hydrocarbon gas produced both through natural sources and human activities, including the decomposition of wastes in landfills, agriculture, and especially rice cultivation, as well as ruminant digestion and manure management associated with domestic livestock. On a molecule-for-molecule basis, methane is a far more active greenhouse gas than carbon dioxide, but also one which is much less abundant in the atmosphere.

"Nitrous oxide is a powerful greenhouse gas produced by soil cultivation practices, especially the use of commercial and organic fertilizers, fossil fuel combustion, nitric acid production, and biomass burning." (NASA)

According to IPCC reports, agriculture, forestry, and other land use contribute to around a quarter of greenhouse gas emissions, a fact that policy-makers should consider when considering how they should invest to adapt to and mitigate the effects of climate change. The greenhouse effect, and the global fossil and

industrial carbon emissions cause global warming and have severe effects on the climate. Glacial melting leading to sea-level rise, hunger and thirst through drought, loss of fertile and habitable land and many other consequences derive from climate change.



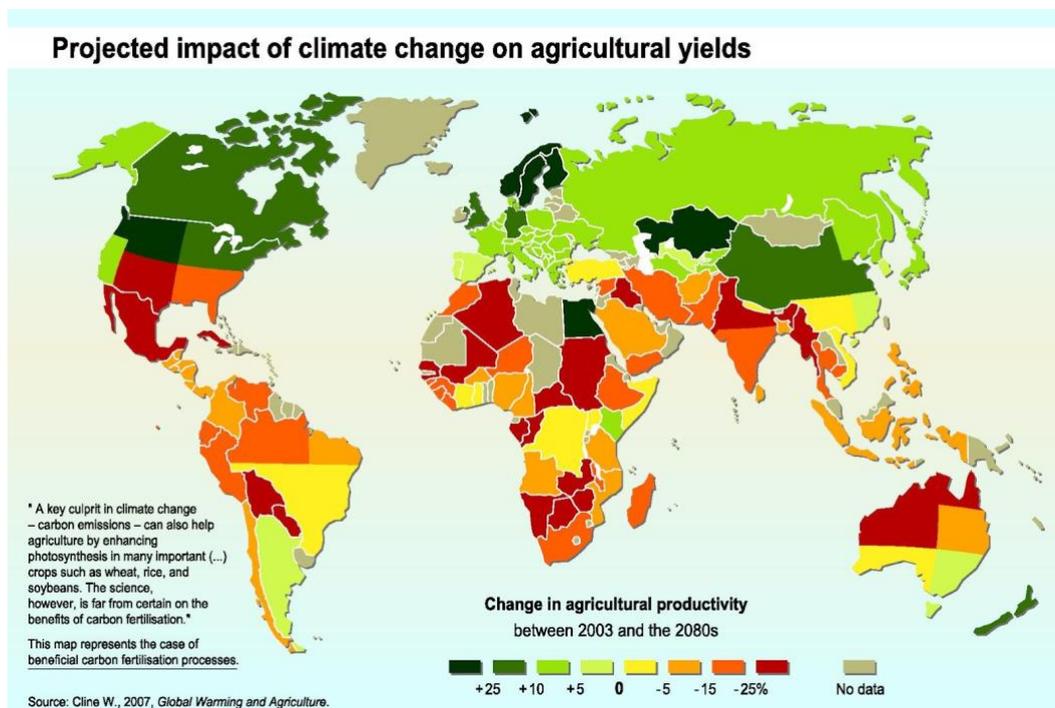
Climate Change and Agriculture

Climate change affects the types of crops that can grow well in certain areas and reduces access to land suitable for growing food or grazing animals. It has brought new crop diseases and pests to some regions. The nutrient content of some crops has changed because of climate change, and water supplies in some regions are shrinking. The unimpeded growth of greenhouse gas emissions is raising the earth's temperature. The consequences include melting glaciers, more precipitation, more and more extreme weather events, and shifting seasons. The accelerating pace of climate change, combined with global population and income growth, threatens food security everywhere.

Agriculture is extremely vulnerable to climate change. Higher temperatures eventually reduce yields of desirable crops while encouraging weed and pest proliferation. Changes in precipitation patterns increase the likelihood of short-run crop failures and long-run production declines. Although there will be gains in some crops in some regions of the world, the overall impacts of climate change on agriculture are expected to be negative, threatening global food security.

Agriculture is important for food security in two ways: it produces the food people eat; and (perhaps even more important) it provides the primary source of livelihood for 36 percent of the world's total workforce. In the heavily populated countries of Asia and the Pacific, this share ranges from 40 to 50 percent, and in sub-

Saharan Africa, two-thirds of the working population still make their living from agriculture (ILO, 2007).



Climate Change and Livestock

Raising animals in animal farms for the purpose of edible animal products is a common way of living in mostly rural areas or small villages. Many people depend on their lives on livestock and animal products. The effect of climate change is severe on stock farming and animal breeding. Food sources of animals are being shortened because of drought led by climate change. In many countries and regions, mobile pastoralists who depend entirely on their livestock herds for their lives and livelihoods are losing their animals to droughts and diseases. Traditional low-input farming is also becoming more difficult due to unpredictable rainfall patterns. Smallholder livestock keepers, fisher folks and pastoralists are among the most vulnerable to climate change. Climate change impacts livestock directly, through heat stress and increased morbidity and mortality, and indirectly, through quality and availability of feed and forages, and animal diseases.

Climate Change and Food Insecurity

“Food security is the outcome of food system processes all along the food chain. Climate change will affect food security through its impacts on all components of global, national and local food systems.” (Food And Agriculture Organization Of The United Nations; Rome, 2008) “Food systems encompass (i) activities related to the production, processing, distribution, preparation and consumption of food; and (ii) the outcomes of these activities contributing to food security (food availability, with elements related to production, distribution, and exchange; food access, with elements related to affordability, allocation, and preference; and food use, with elements related to nutritional value, social value

and food safety). The outcomes also contribute to environmental and other securities (e.g. income). Interactions between and within biogeophysical and human environments influence both the activities and the outcomes." (GECAFS Online) Until recently, most assessments of the impact of climate change on the food and agriculture sector have focused on the implications for production and global supply of food, with less consideration of other components of the food chain. Evidence indicates that more frequent and more intense extreme weather events such as droughts, heat, and cold waves, heavy storms, floods; rising sea levels and increasing irregularities in seasonal rainfall patterns including flooding are already having immediate impacts on not only food production, but also food distribution infrastructure, incidence of food emergencies, livelihood assets and human health in both rural and urban areas.

Major Parties Involved

Burundi

Burundi is one of the countries that has been facing climate changes and unpredictability for the last few years. The 90% of the population is employed in agriculture, landlocked Burundi is highly vulnerable to climatic changes. The regions farmers are vulnerable to the unpredictable climate, droughts, floods and other extreme weather changes that occur because of climate change. In some seasons because of the unpredictability of the climate, the rain just stops before the harvest had matured but then in some months the rain just heavy rains and destroys the crops. Food insecurity was another problem due to the change in the weather. For example, in Kirundo, the north of Burundi, with the slightest breath of wind the sandy and dry soil rises. Previously, this state was among the most productive in the country of Burundi. However, in this past decade, rains became insufficient and irregular. In the past three years, it rained only four months instead of nine which is the regular amount of rain it gets. Throughout spring and summer which are the driest seasons, food security risks are highest which ultimately increased in duration in recent decades, as a result during those seasons it will be getting drier and hotter due to climate change.

Democratic Republic of Congo

The Democratic Republic of the Congo is the second-lowest contributor of carbon emission in the world. Climate change is mostly seen in the northeast of DR Congo as a consequence increasing temperatures and changing rainfall patterns can be observed.

Food security will be particularly affected by the changing climate through land due to erosion and landslides. Due to temperature rises, livestock and crop diseases will also increase and crop failure will too increase due to floods and heavy rains and

also soil nutrient leaching and growth of fungal diseases will increase due to higher humidity which is all caused by climate change.

Food security may also be affected through the effects of climate change on fisheries because the increase in water temperatures is reported at DRC's eastern borders for various lakes in the Great Lakes region, including Kivu and Tanganyika.

Yemen

In 2017, due to starvation, forty thousand children have died in Yemen. Climate change has effects of increasing temperatures, variability of rainfall and heavy precipitation events. The increase in heavy rains in combination with rising temperatures, especially in the north, will probably lead to shortened growing seasons.

Shorter growing seasons that are a result of climate change threaten food security. Over the last three decades, temperatures have significantly increased, at a rate of 0.19C per decade which is estimated to reach 50,000 by the end of the year. There are many children suffering from malnutrition and diseases related starvation. Many outbreaks happen in the country throughout the year. Approximately 385 thousand children in Yemen are suffering from acute malnutrition, with only half receiving any sort of treatment.

Food and agriculture organization (FAO)

Climate change has been threatening our ability to ensure things such as poverty, sustainable development, and global food security. Climate change has both direct and indirect effects on agricultural productivity including drought and flooding. FAO is helping countries to both reduce and adapt to the effects of climate change through a wide range of research-based and practical programs, as an essential part of the 2030 agenda and the Sustainable Development Goals.

Fridays for Fun

Greta Thunberg is a 15-year-old climate change activist who started the movement of Fridays for the Future. Fridays for Future began in August 2018 with Greta Thunberg's activism towards the Swedish parliament where she sat in front of parliament every school day to protest against the lack of action on the climate crisis. Her actions became popular on social media platforms which resulted in the act of Fridays for Future. Fridays for Future is a movement of students who take time off school on Fridays to participate in demonstrations to demand the government to take action on the conflict of global warming. Since then the movement has spread to many countries such as France, Germany, the United Kingdom, Canada, the United States, and Australia.

Timeline of Key Events

Time of Event/When Effective	Event
22 March 1985	Vienna Convention for the Protection of the Ozone Layer
21 March 1994	United Nations Framework Convention on Climate Change
16 February 2005	Kyoto Protocol
1 January 2016	17 Sustainable Development Goals (SDGs) came into force
4 November 2016	Paris Agreement
23 September 2019	2019 Climate Action Summit

Previous attempts to resolve the issue

39 C/46 UNESCO Strategy for Action on Climate Change
<https://unesdoc.unesco.org/ark:/48223/pf0000259255>

This is a meeting document by UNESCO. It describes the aim of UNESCO upon the issue of climate change and adaptation.

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World Food Programme (WFP) works with partners in order to design and implant the danger of climate change on global hunger. WFP's aim is to allow food insecure governments and communities to be prepared for to respond to climate change shocks. To do all of these, WFP provides supports and analysis the links between the security of food and climate risks. In conclusion, this helps the WFP to identify which communities are at most at risk of global hunger. In order to help communities adjust to the fallouts of climate change, the WFP alongside it's partners suggests the implementation of various technologies. This pertains to solutions such as but not limited to protecting farming capital and crops, diversifying livelihoods, bettering public access to markets and rehabilitating land. These solutions also tie into working with governments in order to ensure that these projects can be implemented to the internal policy of a country such as social protection, early warning and insurance plans.

(see full document with this link)

<https://www.wfp.org/publications/2017-wfp-and-climate-change-0>

<https://www.wfp.org/climate-action>

Possible Solutions

Climate change is one of the biggest problems that we are facing these current years. Although it hasn't been solved yet, the necessary actions should be taken.

One of the best actions that could be taken is to organize public speeches and seminars to make people aware of how serious climate change is affecting hunger around the world. These awareness programs will help the society to cooperate among the governments and NGOs. Additionally, these awareness programs can have huge impacts on the way people think and act up on climate change and global hunger. When citizens become a part of the reforms and are aware of the positive and negative effects on humanity and to our world the support for the reforms will grow.

Another solution could be finding international funding that will fund renewable energy to invest in renewable energy to help to solve the issue.

Lastly, a [report by the Intergovernmental Panel on Climate Change](#) found that to put a stop to climate crisis the world needs to half the global emissions by about halve till 2030, and reach net-zero by 2050 or earlier. Additionally, governments should make fundamental changes such as promoting renewable energy, moving away from unsustainable agricultural practices and implementing rewilding programs.

Related Documents

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