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Food Insecurity and Climate Change

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Introduction

Food security is a fundamental human right and having access to at least an adequate amount of nutritious food could be seen as the most basic of all human rights. However, acute food insecurity is on the rise globally- 349 million people across 79 countries are facing acute food insecurity – up from 287 million in 2021 (WFP, 2023). 828 million people still go hungry around the world in 2022. Of these 828 million people, 345 million are experiencing acute hunger (more on that below). Around 9 million people die from hunger every year. The undernourished people grew by as many as 150 million during 2019-2022 (The Global Hunger Index , 2022). Hunger hits the children hard-almost 14 percent of children are suffering from severe acute malnutrition and 45 percent children are dying globally due to hunger and related causes. The majority of those suffering from hunger and malnutrition are smallholders or landless people, mostly women and girls living in rural areas without access to productive resources (The Global Hunger Index , 2022).

The right to food is recognized in the universal declaration of Human Rights, adopted by the UN General Assembly in 1948 which included the statement that "*everyone has a right to a standard of living adequate for the health and well-being of himself and his family, including food*". The right to food was further elaborated in the International Covenant on Economic, Social and Cultural Rights (1966) in the form of an assertion that "*states Parties...recognize the fundamental right of everyone to be free from hunger*", and again in the International Covenant on Civil and Political Rights (1966). Various UN declarations have reasserted the right to food, including the 1974 World Food Conference Declaration and the 1992 Declaration of the International Conference on Nutrition. The World Food Programme and the World Food Council have both articulated this right as a fundamental human right and a central precondition for development. Goal 2 of Sustainable Development Goals (SDGs) also seeks sustainable solutions to eliminate hunger in all its forms by 2030 and to achieve food security. The particular aim of this goal is to ensure that everyone everywhere has enough good-quality food to lead a healthy life. Despite all the above-mentioned promises in several declarations, the world's hunger is continues to escalate. A Global Report on Food Crisis 2022 by WFP *estimated that 205*

million people are expected to face acute food insecurity and to be in need of urgent assistance in 45 countries. If additional from the latest available analysis of 2021 is included for 8 countries and territories, this number is estimated to reach up to 222 million people in 53 countries/territories covered by the GRFC 2022. This is the highest number recorded in the seven-year history of the report. Around 45 million people in 37 countries are projected to have so little to eat that they will be severely malnourished, at risk of death or already facing starvation and death. Afghanistan, Ethiopia, Nigeria, South Sudan, Somalia and Yemen remain at the highest alert level, as they all have populations facing or projected to face starvation or at risk of deterioration towards catastrophic conditions as they have already critical food insecurity and are facing severe aggravating factors. These countries require the most urgent attention (Hunger Hotspots FAO-WFP early warnings, January 2023).

How Climate Change is impacting Food Security

Climate change is one of the many factors that threaten food security. It impacts all dimensions of food security, including quantity, quality, access, and food preferences which result in increased food prices and reduced availability of food. According to the latest Intergovernmental Panel on Climate change (IPCC), assessment report, climate change deepens the risks to food security for the most vulnerable countries and populations. The following Four key risks induced by climate change have direct consequences for food security:

- Loss of rural livelihoods and income
- Loss of marine and coastal ecosystems, and livelihoods
- Loss of terrestrial and inland water ecosystems, and livelihoods
- Food insecurity and breakdown of food systems

Extreme climatic conditions such as droughts, floods rising sea levels, and the accompanying salinity, rising temperatures and ocean acidification are reducing agricultural productivity. The effects of climate are also seen in declines in pollinating insects and increases in biosecurity risks, such as the expansion of pest species and disease distribution. These extreme weather conditions are also directly disrupt food transport, market accessibility, and storage infrastructure which ultimately endangers food security and aggravates the incidence of hunger and malnutrition.

Conclusion and Recommendations

It is estimated that approximately 21-37 percent of total GHG emissions are attributed to the food security sector. Therefore, climate change mitigation in the food security sector is no longer a choice but the only option. Countries which are vulnerable to climate change

need to integrate climate mitigation measures into their food security sectors while updating their Nationally Determined Contributions (NDCs) (Madurapperuma, 2021).

Adaptation to climate change is urgent and should be critical component for food systems, production, distribution, and consumption strategies. Some of the key adaptation measures include the followings;

- Food systems which contribute substantially to GHG emissions should play a role in mitigation by changing agricultural practices and land use, more efficient value chains, and reduced food loss and waste.
- A substantial increase in funding for R&D should be made as there is a dire need for innovation, crop varieties, clean energy sources, and digital technologies to trade, landscape governance, and social protection programs for sustainable food system transformation.
- More resilient, more productive and more sustainable food systems are required to eliminate hunger, to enable agriculture sectors to adapt to climate change and to ensure everyone's food security.
- Regenerative agriculture practices should be adopted as it is a vital instrument in maintaining and restoring topsoil to meet future production demands and contribute to the production of healthy and quality foods that will contribute to food security.