

Essay

Food Insecurity: The defining challenge of the century ahead

Outline:

I. Introduction

Thesis Statement:

With the increasing geo-political and geo-economic vulnerabilities, food insecurity is one of the most formidable challenge the world is facing today. The issue has hit the social lines and caused existential threat. However, certain pragmatic steps can counter the danger of food security.

II. Understanding the current status of food insecurity in the world

III. Factors responsible for contributing the food insecurity as the defining challenge of the century ahead

(A) Environmental factors

(a) Impact of climate change on agriculture

(b) Depletion of natural resources affecting food production

(c) Loss of biodiversity and its implications for food insecurity

(B) Socio-economic factors

(a) Economic disparities leading to unequal access to food

(b) The role of poverty in exacerbating food insecurity

(c) Less participation of women in agriculture

(C) Political factors

(a) Political instability and conflicts affecting food distribution

(b) Reluctance of governments to use technology in food domain

(c) The lack of coordinated international responses

IV- Impacts of food insecurity on global population

(a) Impact of food insecurity on human health

(b) Malnutrition in early childhood affecting cognitive development

(c) Social unrest and migration due to food-related crisis

(d) Environmental degradation and the loss of biodiversity driven by the demand of food resources

(e) Increased vulnerability to global shocks

V- How to address the malice of food insecurity?

(a) Advancement in technology to enhance food production

(b) Encourage climate-resilient crop production

(c) Sustainable agricultural practices to

address food insecurity

(d) Strengthening global trade and
market access

vs. Conclusion

The world has grappled with the plethora of issues. Among them, food insecurity is the most formidable challenge threatening the very existence of humans on earth. Beside having so many innovations and advancements of the 21st century, the food sector is still under danger. According to Michael Pollan, an American author, "In a world where food insecurity persists, the existential threat is not just hunger; it is the erosion of the very foundation upon which civilizations thrive - a nourished and resilient populace."

Due to persistent food insecurity, the mankind has to face hardships in making up basic life necessities. Unfortunately, various notorious factors are responsible for causing food insecurity worldwide. The drastic effect of climate change, depletion of natural resources, political issues of negligence, the lack of integrated global efforts, and economic disparities are some of the reasons, which are causing the global food insecurity. These factors have directed the global village into segregated groups based on

the availability of resources. Moreover, the vulnerabilities of the world population have increased manifold. Due to this, human health is affected drastically. Similarly, social unrest due to displacement and environmental degradation driven by attaining the food resources have impacted the world peace. However, despite having a myriad of challenges, a ray of hope is still present to bring the world out of dark ravine of food scarcity. Rapid technological advancement in agriculture, climate-resilient crops, and sustainable agricultural practices could drive the plenty of opportunities in terms of food security. Hence, such factors could enable the world to thrive sagaciously and providing food to everyone ~~off~~ effectively.

Food insecurity has become a global threat. All around the world, people have felt this danger in one way or the other. This problem of food unavailability has the potential of inciting other conflicts as well. According to the Global Report on Food crises, there

are currently at least 238 million acutely food insecure people around the world, with a 10% increase on the 2022 figure. Such high number of people with no availability of food hamper the world trajectory towards peace. The figure of humans with unequitable access to food have increased further.

In exploring the factors responsible for contributing the food insecurity as the defining challenge of the century ahead, environmental reasons are one of the most crucial factors for aggravating food insecurity. Among them, the drastic impact of climate change has impeded the equitable production of crops. According to the report of Food and Agriculture Organization (FAO) on food crises in 2021, several African countries, including South Sudan, Nigeria, Sudan, and Ethiopia are facing acute food insecurity due to climate change. The climate change in such countries particularly in the form of drought have contributed

significantly to social unrest and chaos among population, due to the reduced crop yield and disrupted agricultural practices. Thus, climate change is increasing the food insecurity.

Moreover, the depletion of natural resources have resulted in the less production of food. Due to land degradation particularly in the form of deforestation, ^{soil erosion} due to unfair farming practices, and water shortages owing to irregular usage are some aspects that are causing acute food shortages worldwide. The World Bank estimates that land degradation could cost the global economy up to 15 trillion USD by 2050. Moreover, environmental factors are the main issue for the depletion of natural resources. Like the extreme weather events causing surface and ground water to deplete due to water evaporation. Hence, less availability of natural resources are causing the food to yield slowly.

Loss of biodiversity is another

main problem of food insecurity. Loss of biodiversity includes monoculture practices, less crop diversity, land abuse, deforestation, depletion of plants and livestock necessary for food security and many more. Similarly, increased pest and other pathogens are also enhancing the disruption of crops. The State of the World's Biodiversity for Food and Agriculture report notes that around 20% of the world's 7745 livestock breeds are at risk of extinction. So, these issues of biodiversity loss have undermined the availability of food to all populations.

Similarly, in conceptualizing the socio-economic factors of food insecurity, economic disparities is one such factor, which has huge threatening potential for ~~the~~ on food. Income inequality has ^{been} disturbing the purchasing power of food. Moreover, ~~the~~ rural-urban divide in the form of limited infrastructure and services have struck the delicate boundary of stability. The World Bank's report on

Food Security and Nutrition (2021), has highlighted that rural areas face higher rates of food insecurity compared to urban areas. Furthermore, the most crucial aspect of economic disparities is observed in the Global North-Global South divide. The separation on the economic line depicts the inequitable access of availability to food.

Poverty is another point of consideration. Extreme poverty lines negate the equitable availability of food. ~~particular~~ poverty and food insecurity are directly linked to each other. Due to lack of funds, people are unable to have land ownership, adequate agricultural practices, and ample food resources. Such factors thus induced the possibilities of shocks and vulnerabilities in terms of conflicts. According to World Food Programme (WFP), poverty increases the risk of food insecurity during emergencies, such as conflicts and

natural disasters. Unfortunately, the proportion of impoverished population has increased drastically leading towards non-availability of food.

Furthermore, the less participation of women in agricultural fields is another challenge of exacerbating food crisis. Women have equal potential of enhancing the yield for positive growth, and their negligible share has undermined that positive growth. The Food and Agriculture Organization has estimated that closing the gender gap in agriculture could lift 100-150 million people out of hunger. Thus, by increasing the opportunity of women's participation in agriculture, the agricultural yield could grow exponentially.

Moving on, political factors are also contributing towards food crisis. The rapidly changing geopolitical dynamics of the world has

far right consequences. Food is sector is highly affected sector in this domain. The Russian war on Ukraine has cut the global food supply line. Moreover, Israelies brutal genocide on Palestinian has impeded the food supply to vulnerable communities. Hence, it is rightly to say that politics is one major challenge to disrupt food availability and productivity.

The reluctance of governments to use technology in agricultural domain can indeed contribute to food crisis. Failure to adopt modern technologies can lead to lower agricultural yields, affecting overall productivity and the ability to meet the growing demands. Limited access to technology has directed a nation towards inefficient resource management, inaptness in acknowledging weather pattern, and navigating climate change adaptation. Moreover, due to lack of awareness and modern education, the crop

yield is deteriorating dramatically. Less hindrance to pest control management is also due to technological backwardness. Hence, technological illiteracy and food crisis are dependent on each other.

In country the challenges to food insecurity due to political factors, the lack of integrated world leaders ^{response} to handle the food insecurity is one of the main issues. These They have failed to address the notorious problem prevailing in the world today. Global issue like climate change needs a urgent responsible because this factor has exacerbated food scarcity. However, global response is disappointed in this matter. According to Marion Nestle, "The failure of robust international cooperation on food security is not just a missed opportunity; it is a stark reflection of our global priorities - or lack thereof - in the face of a

crisis that affects us all." Thus, a lack of coordinated efforts on the part of global leaders is causing food crisis.

Considering the above-mentioned factors responsible for enhancing food insecurity in the world, it is determined that its consequences are far more complicated and worst. At first, food insecurity has deteriorated impact on human health. Absence of certain essential ingredients and nutrients have profound impact on physical, mental, and spiritual growth of human beings. According to World Health Organization (WHO), nearly 690 million people were undernourished globally in 2019. This high number of people being undernourished is only due to the non-availability of enough food.

Similarly, children are more prone to inadequate access to food, leading towards incomplete development and cognitive immaturity. They can not fulfill their basic need thus

affecting their whole life. Because of undernourishment, they do not participate in any life activities. The report given by UNICEF in 2019 on the impact of malnutrition on children clearly depicts that there is a link between food insecurity and school attendance, with hungry children more likely to miss school. The missing of school due to food insecurity has direct influence on child's cognitive development thus leading the world towards chaos.

Due to unprecedented food unavailability, people likely to migrate other places in search of food. The migration has caused social unrest with the rising of conflict between dwellers and foreigners. The process of forced displacement put strains on already depleting resources. The International Organization for Migration (IOM) has highlighted the food security to be the major factor of forced migration,

as people seek better opportunities and stability. The migration has intensified the disharmony among nations, which has disrupted the smooth process of development.

The increasing food insecurity also has profound effect on environment and global peace process. People are compelled to degrade environment to carry out their fundamental needs. They are restricted towards deforestation, utilising low quality seeds, and land misuse to meet their needs, which in turn have incited Global Shocks. The shocks in the form of natural disasters, climate change, and global warming has not only produced life risks but also impacted economic growth of the world.

Therefore, it is mandatory to carry out sustainable measures that could address the maligh of food scarcity. One such step is

the sophisticated deployment of technology in agricultural field. With the drastic advancement in the field of artificial intelligence, it is crucial to employ high precision techniques which could generate massive positive outlook. For example, Pakistan has been making endeavoring to inculcate technology in agricultural sector under Special Investment Facilitation Council (SIFC) agenda. By intensifying such efforts, the countries could produce high yield crops within less time framework.

Climate-resilient crops are better option for integrating food security with public demand. These crops can withstand extreme weather events, which are beneficial for fulfilling public demand of food even in the time of crisis. Diversification of crops and livestock, efficient water management principles, agroforestry, and minimising soil disturbances are effective strategies for countering

food insecurity. There are many countries that are shifting towards climate-resilient agriculture techniques. For instance, India through The National Mission for Sustainable Agriculture (NMSA), Brazil by focusing on Low Carbon Agriculture Program, and Bangladesh by Climate Change Strategy and Action Plan are striving to mainstream climate-smart practices in agriculture for sustainable development.

In addition, sustainable agriculture practices are viable techniques for mitigating food insecurity. For example, agroecological farming, such as agroforestry systems of combining trees and crops, conservative agriculture like reducing soil erosion, enhancing water retention, and contributing to sustainable intensifications are necessary points to be considered upon. Moreover, advocating for fair trade policies that benefit small-scale farmers in developing countries, addressing trade imbalances, reducing ag barriers for agricultural exports, and supporting

the development of local and regional markets ^{can} to enhance food security and improve crop yields and efficiency.

To conclude, food insecurity is one of the major existential threat that can provoke the world towards further challenges in the coming timeframe. The food insecurity has the capacity to generate many issues. Various factors are responsible for aggravating the vulnerable situation of food insecurity. Among them, depletion of natural resources, economic disparities, less women participation, and political conflicts are some reasons that are raising concerns about the availability of food in coming decades. Due to such issues, profound impacts are being felt in various sectors. Deteriorating human health, immature cognitive development of children, and, above all, environmental degradations are ~~deteriorating~~

determining factors under the guise of food insecurity. Therefore, it is mandatory to act upon certain measures, such as sustainable agriculture techniques, technological innovations in agriculture, and ~~use~~ climate resilient crops, to counter the ~~mess~~ menace of food crisis. Thus, the global confusion of food scarcity could be reduced effectively by following such measures.