

Essay: Food Security: Causes and Solutions

OUTLINE:-

1) Introduction

Thesis Statement:

There has always been a debate about ensuring the equitable division of food amongst all the nations of the world but somehow this goal has remained unattained. The challenges of food security have accentuated recently owing to rapid climate change, inflation, wars, conflicts and monopoly of food supply chains across the globe. To ensure food security for everyone everywhere, there is a need to revamp traditional agricultural systems and rely more on locally available food sources. Moreover, the food supply chains need to be diversified. Controlling inflation and rolling out social protection programs will also help reduce world hunger.

2) Food production is exceeding the demand yet so many people are hungry.

3) What does food security entail?

4) A look at food security condition across the globe

5) Causes of deteriorating situation

a) Global shift in temperatures and seasons

- b) Russia - Ukraine conflict
- c) Inflation in the food market
- d) Monopoly of food supply chains
- e) Lack of diversification in food choices
- f) Involvement of political and religious interests

6) Solutions

a) Revamp and modernize agricultural systems

b) Devise mechanisms to ensure uninterrupted food trade

(Case in point: Black Sea Grain Deal)

c) Devise mechanisms to control food prices at global and local level

d) Countries to diversify their import-ation sources

e) Diversify food choices

f) Diversify food supply chains and regulate their activities

g) Embrace innovative food options

h) World leaders and IGOs not to allow their biases influence the food supply across the globe

7) Conclusion:

The president of Brazil, Luis Inacio Lula da Silva says; "Hunger is actually the worst weapon of mass destruction. It claims the millions of victims each year." He couldn't be more right because when it comes to global issues and crisis, world hunger and ~~food~~ food security tops the list. A fleeting look at the world situations tells us that the question actually is not of the food shortage. There are food productions that exceed the global demand, yet many still go hungry. Food security is not a simple phenomena. It entails many things from the production, transportation and distribution of food. Current food security situation reveals that there are several factors that are contributing to this crisis. But then again, there are a multitude of solutions that can help achieve equitable food distribution to all. There has always been a debate about ~~existing~~ equitable division of food amongst all the nations of the world but somehow this goal has remained unattained. The challenges of food security have accentuated recently owing to rapid climate change, inflation,

wars, conflicts and monopoly of food supply chains across the globe. To ensure food security for everyone everywhere, there is a need to revamp traditional agricultural systems and rely more on locally available food sources. Moreover, the food supply chains need to be diversified. Controlling inflation and rolling out social protection programs will also help reduce world hunger.

Like all other aspects of national security, food security is imperative for a nation's stability and well-being of its citizens. However, what makes food security a global issue is that virtually every nation state is struggling with it; some are struggling more than the others. What's more astonishing is that the world is currently producing more food than it actually needs to feed the current population. Despite that 800 million people are going hungry. One person dies every minute in Ethiopia, Kenya and Somalia while in the USA the food produced is double than her actual needs. (A world going hungry, DW News, July 2022). This points to a much bigger problem i.e. the fractured condition of entire system at all levels.

The question here is what food security entails. According to the food security model presented by FAO (2009) it includes four dimensions — availability, accessibility, utilization and stability. Availability includes the supply side of food production and net trade. Accessibility entails economic and physical access to food including income parity, expenditures and market rates of food. Utilization stands for the availability of culturally appropriate and nutritionally healthy food. Lastly, stability is the measure of resilience of the other three pillars overtime.

Deducing from this model, we can say that it is the collective failure of these four pillars at the same time or at different times that locks us in the vicious cycle of food security.

We get a bleak picture when seeing the hunger crisis across different regions of the world. Starting with the African (especially sub-Saharan) region we find a large percentage of population enduring hunger in silence. West Africa is going through its worst hunger crisis

in a decade. Similarly, Central America's dry corridor that stretches between Costa Rica and Mexican border has seen its worst drought in the last five years. The crop productivity there has dropped by 90 percent. Russia-Ukraine conflict has greatly disturbed the food prices and overall availability in the Middle East where most of the nations import their daily food commodities. As for Asia, the situation is grim too. Countries like Afghanistan, Bangladesh and Pakistan are facing severe economic crisis and that has led to rising food prices and decreasing purchasing power of the poor. Climate change has further exacerbated the crisis. In short, food ~~in~~ insecurity is rising everywhere across the world.

Abrupt climate change and seasonal shifting is being seen as the leading cause of lowered crop productivity in various regions. Every crop has an optimal growth requirement in terms of temperature and moisture. Wheat, for example, needs long summers for ripening. However, if the temperature cools too quickly, the maturing occurs prematurely leading to small-sized wheat grain with

low starch content. According to Dr. Ghulam Rasul, Ex. DG Meteorological Department of Pakistan, the same has happened to the wheat crops growing in Punjab and Sindh provinces. In the 2022, Pakistan has seen ten percent reduction in its wheat productivity owing to rapid climate fluctuations (TCM Originals, 2023). This points to the reality that climate change and global warming has drastically affected food security.

None of the conflicts has ever affected food supply systems as the Russia-Ukraine war. The simple reason is that both Russia and Ukraine are largest exporters of several important staple crops across the world. Since the conflict broke out in 2021, Ukraine has not been able to export twenty million tonnes of agricultural commodities. This has led to food shortage in countries like Somalia which sources ninety percent of its wheat from Russia and Ukraine. Prices of dairy products, cereals and vegetable oil have also increased due to this conflict (FAO, May 2022)

The causes of inflation in the global food market could be diverse but the event itself has greatly lowered the purchasing power of many across the third world nations. This inflation is defining new normals for people belonging to the lower and lower-middle strata of the society. Lower-middle class is finding it increasingly difficult to purchase a variety of healthy food items that comprises a balanced diet. On the other hand, people from the lower class are struggling to ensure a constant availability of their staple food. Experts at Adelphi Climate Think Tank believe this is an issue of 'Access Poverty' meaning that there are incentives that are targetting production only while there is little incentive to ensure equitable and sustainable distribution of food. Rising food prices have indeed elevated the hunger levels across the world.

Another

Another significant factor for decreasing food security is the monopoly of food supply chains. Their monopoly gives them the impunity to control the distribution, movement and pricing of food in various

regions of the world. These supply chains are basically 4 logistic firms collectively known as "ABED companies". George Monbiot in his book 'Regenesiis' is of the view that these four companies operate like 'nodes' (as in financial systems) and since these nodes are becoming larger day by day their tipping point is imminent. He opines that the ^{current} condition of food supply system resembles 2008 financial system that crashed badly under pressure. These supply chains are also accused of causing 'greed' inflation and controlling who gets to buy what and at what price. Having virtually no competitor has allowed these companies to modulate food availability in several parts of the world.

Lately, the lack of diversification of food choices is being seen by the experts as one of the reason for rising food insecurity. They are of the view that too much reliance of a single food crop put too much pressure on the demand side. This strain feels like a food security issue when in fact it is not. This strain can be

easily relieved by incorporating a diverse collection of other foods in daily diet. In Pakistan, for example, sixty percent of the population relies on wheat to fulfill daily dietary needs (Pakistan Agriculture Council, 2022). This reliance can be decreased if people start using corn, oats and barley as alternative options.

Vested interests of political and religious faction can also influence equitable division of food resources in different regions across the globe. Although the global food supply chains operate with sheer impunity, they can sometimes get influenced by religio-political factions. Citing economic and security reasons, several first-world countries cut back on their international food donations. Multilateral platforms have also been influenced to lower their food-related aid in hunger hotspots. A humanitarian crisis is unfolding in Haiti where five million people are going hungry in silence. The World Economic Forum (WEF) has been fulfilling merely fifteen percent of their demand and even then there have been calls to reduce this aid to an even lower

ten percent. This highlights how powerful political influences are acting to lower global food aid instead of trying to increase it.

The issues like changing seasonal patterns, deteriorating topsoil, decreasing water levels and extreme temperature patterns mandate changes in our agricultural system. These include changing the way we grow crops, process, store, move and utilize them. Experts are of the view that no traditional system is useful now - There is an urgent need for local, international and multilateral financial cooperations to boost technological and technical capacities of farmers so that they might be able to grow nutritious, high-quality food without compromising its quantity (FAO, Climate Change, Agriculture and Food Security, 2020). Building resilience in agriculture systems will allow people to grow food locally while lowering their reliance on imported food.

Given the fact that several

3rd world countries heavily rely on two to three major food suppliers, there is a need to devise mechanism that ensure continuous trade of food commodities. The world needs to formulate a UN-backed mechanism in collaboration with food supply chains which ensures that food supply chains operate seamlessly at all times and under all circumstances. In this regard, the Black Sea Grain Deal is an ideal antecedent. However, this deal was brokered by Turkey after a total blockage of Ukrainian grain trade for several months. When it comes to the transport and distribution of food, the world cannot afford any form of delay. Therefore ensuring the integrity of food supply chains is necessary and mechanism to ensure that should be developed on war footings.

Regulating the prices of food at local and global level also offers an effective way to ensure food security especially in the poverty-stricken areas of the world. World Economic Forum and World Health Organisation needs to work with

major food crop producer countries in this regard. At local level, governments can try to regulate food prices by helping the farmers and regulating the activities of all the players that are involved in transportation & supply of food. An ideal example in this area has been set by International Fund for Agricultural Development (IFAD). IFAD is helping local populations transform the ways their food is produced and consumed. Bangladesh government is regulating food prices by connecting farmers directly to the market, thus removing the role of the middleman and allowing the farmers set fair prices for their produce. Initiatives like these need to be adopted by other countries especially the ones facing extremely high food prices currently.

Yet another measure that can ensure food security for a country is the diversification of the sources which they use to source food from. The effectiveness of this measure is proved by George Monbiot in his book *Regeneration*. According to him excessive reliance

on few entities (nodes) makes them extremely large and increases their chances of collapse. In other words, he means "don't put all your eggs in one basket". This means that even when one or two sources of food are blocked or disrupted, the rest are able to provide uninterrupted supply.

Besides source diversification, diversification of food choices can also help reduce the burden on food supply chain. In Pakistan for example, wheat is consumed as a staple food and so it has a high demand throughout the country. The same high demand caused the government to import 4 billion tonnes of wheat after the floods of 2022 which destroyed wheat crop in several districts of Punjab and Sindh. Problems like these can be avoided if people incorporate diverse food choices instead of relying too much on a single food crop.

The logistic companies that oversee the food supply need to be regulated at intergovernmental level. The fact that there are just four companies

that decide who gets the food when, how and at what price is alarming. Having no competitors allows them to operate with complete freedom. One way to control and regulate their operations is by constituting an intergovernmental oversight committee. Another method that that can help reduce their influence is to introduce other supply and ~~logistic~~ logistic firms in the game - introducing several players will allow regulation of food prices through a healthy competition.

Lastly, adoption of innovative food choices is a cheap yet brilliant idea to feed an increasingly world population - These options include the use of bacterial-mediated fermentation to produce protein and fats at massive scale. The initial installation cost of these biotechnological fermenters is a hurdle that is deterring many to try this option. However, looking at the greater picture tells us that these innovative solutions are the ultimate remedy to our hunger problem.

A growing body of evidence suggests that governments and influential IGOs have been trying to influence food security in different regions - Chinese prime minister, for example, has been visiting several African countries in September of this year. His visits were all based on rolling out loan-based infrastructure schemes or loan-schemes to help those countries pay back their loans to the western states. Experts suspect that these efforts are being made to control and monopolize African food supply chain. This will allow China to control food supply in several regions of the world. Several IGOs are also working on the same plan. Tactics like these should stop.

It seems like a failure when one looks at all advancements that mankind has made in the realms of agriculture, medicine, telecommunication, and biotechnology and yet it is unable to feed its entire population. But looking closely tells us that it is not actually the problem of food production; it is the post-production strategy that is broken. Sure, the environmental

conditions are changing which are affecting agricultural systems but lack of innovation and adoption of climate-resilient practices is the real hurdle that creating food insecurity. When it comes to transportation and distribution of food, access poverty is the main issue. In short, climate change, conflicts, inflation and monopoly of supply chains are the factors that are locking the world in this crisis. The solution to this crisis may seem impossible but in reality it can easily be tackled with a pro-active strategy. This strategy involves steps like building sustainable agricultural systems and regulating food prices. The world leaders also need to work empathetically for equitable distribution of food between the rich and poor states of the world.