

Food Insecurity: The defining challenge of century ahead.

Outline:

1) Introduction

(1a) What is food insecurity?

(1b) Evolution of food crisis

(1c) Thesis statement: Food insecurity ~~has~~ ^{will} become a cataclysmic challenge for the century ahead. There are many causes of food insecurity, the effects of which will prove horrendous for ^{the} upcoming generations. However, by taking sincere and proactive measures, the spectre of food insecurity can be curbed.

2) Major categories of food insecurity

(2a) Acute food insecurity

(2b) Occasional food insecurity

(2c) Chronic food insecurity

3) Causes of food insecurity

(3a) Burgeoning Population

(3ai) Malthus relationship between population and food-insecure resources

(3aii) "Continuing population in this regions makes periodic famine unavoidable" (American British Environmentalist Sir Johnathan Rossitt)

(3b) Conflict & Political Instability

(3bi) 70% of the world's hungry people are in areas of conflict and violence.

(3bii) Russia-Ukraine war and disruption of Global food supply chain.

(3c) Rapid Urbanization.

(3ci) Around two-third of world's population live in urban areas (Sova 2016)

(3d) Climate change

(3di) Damage of crops due to floods & drought

(3dii) Frequent locust attacks

(3e) Financialization of food

(3ei) The significant role played by financial markets (5) in the agri-food sector

(3eii) The result of price hikes has been seen in 2007-08

2010 and 2012

(3eiii) "The struggle against hunger and malnutrition is hindered by market priorities, the primacy of profit which reduces food stuff to a commodity like any other, subject to speculation and financial speculation in particular." (Pope Francis)

(4) How food-insecurity will be a defining challenge for the century ahead

(4a) Poverty and hunger

(4ai) In 2022, 691-783 million people in the world face hunger, which was 122 million more than in 2019 before the Covid-19 pandemic. In fact, 345 million of those people are facing acute level of hunger including starvation (FAO)

(4b) Malnutrition

(4bi) Low birth weight, child hood stunting, anaemia in women of reproductive age, micro nutrient deficiencies.

(4bii) "A diet considered as insufficient intake of vitamins and minerals will obstruct foetal, infant and child growth and development." (WHO, 2018)

(4c) Depression

(4d) Miscellaneous Effects

(4di) Acute respiratory infections, Diarrhoea, malaria, measles, low levels of energy, growth failure, delay

in maturation, impaired cognitive ability, reduced capacity to learn, less ability to resist from infections and illness, reduced life expectancy, growth in maternal mortality, political instability in the food insecure region, Emigration

(5) Possible solutions to curb food-insecurity from becoming a defining challenge for the century ahead.

(5a) Use Fertilizers more efficiently

(5ai) According to West, the use of fertilizers on wheat, rice and maize crops could be reduced upto 13-29% and the production is still the same.

(5b) Reduce food waste

(5bi) Globally, one-third of all food produced is lost or wasted - around 1.3 billion tonnes of food, costing the global economy close to \$940 billion each year. Upto 10% of G.H.Gs comes from food that is produced but not eaten. (UNEP report, 2021)

(5c) Information and Communication Technology (ICT) ^{assessment}

(5ci) At present, WFP uses a method of vulnerability ^{assessment} and mapping to conduct food security analysis of vulnerable populations allowing WFP to gather real time data in order to properly recognize and evaluate the the situation in distant areas

(5d) Fair Trade

(5di) Between developing, developed, and underdeveloped countries.

(5dii) Review of WTO and International trade agreements

(5e) Knowledge Information System

(5ei) Proper training, education and development skills for local human resource.

(5eii) Knowledge improvement services, early warning systems and management information systems

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support all other efforts to address food security.

(Seiii) Knowledge information systems are used to collect performance of data related to crop production areas by using Remote sensing and field data networks to provide early warning and emerging food insecurity situations.

(Seiv) FAO WFP and IFPRI took a global initiative and made Food Security Information Network to strengthen food and nutrition information system for making reliable and accurate data to guide analytics and decision making

b). Conclusion

Essay

John F. Kennedy, former president of USA, has pertinently said that, "If a free society cannot help the many who are poor, it cannot save the few who are rich." A welfare state never distinguishes between upper and lower classes in terms of basic necessities, such as food, shelter and cloth. The provision of these necessities in a satisfactory manner justifies the existence of any state. Food insecurity has become a humongous challenge for the 21st century. It can be defined in many different ways. According to the American Dietary Association, food insecurity can be defined as, "limited and uncertain availability of nutritionally adequate or safe foods or limited or uncertain availability to acquire acceptable foods in socially acceptable way." In addition, FAO in 2013 has defined it as, "A situation that exists when people lack secure access to sufficient amount of safe and nutritious food for normal growth and development and active and healthy life." The term and concept of food security were stated nearly four and a half decades ago during the Food and Agriculture Organization's conference, organized in 1974 to find out ways and means to provide food security to the hungry people by providing and producing enough food and giving safety from the fluctuation in food prices (Anderson and Cook, 1999). The 2008 global food crisis created riots in many countries to seek the attention of the ^{authorities} public to food insecurity. In July 2009, G-8 Head of States agreed to act with the scale and urgency needed to achieve sustainable goals for food security (Barrett, 2010). According to UNFAO, as many as 828 million people or 10% of the world's population go to bed hungry each night, 46 million more than previous year. There are multifaceted ^{causes} repercussions of food insecurity such as population explosion, conflict and political instability, ever expanding urbanization, wrath of nature and financialization of food to name a few. Resultantly, these causes are becoming a defining challenge for the century ahead in the shape of poverty and hunger, malnutrition, depression and other miscellaneous effects. However, there are still multiple windows of opportunity to curb this silent pandemic.

By adopting certain measures, some of which are the efficient use of fertilizers, reduction of food waste and efficient use of information and communication technology. Furthermore, encouraging fair trade and leveraging knowledge information systems will go a long way in making people food secure. To cut it short, food insecurity will become a cataclysmic challenge for the century ahead. There are many causes of food insecurity, the effects of which will prove horrendous for the upcoming generations. However, by taking serious and proactive measures, the spectre of food insecurity can be curbed.

The above paragraph was a brief introduction about the chosen topic. A brief account of the major categories pertaining to food insecurity ~~are~~ is given in the following paragraph.

According to FAO, there are three major categories of food insecurity. The first one is acute food insecurity. It can be defined as severe hunger and malnutrition to the point that lives are in an immediate significant threat. Its best example is famine. The second major category, Occasional food insecurity, is defined as the existence of food insecurity due to a specific temporary circumstance. Third one is Chronic food insecurity. It is the requirement of food needs, that are consistently or permanently under threat.

After defining the major categories of food insecurity, it is pertinent to shed light upon the causes of food insecurity. These are multifaceted reasons for this menace. However, the most important ones are discussed in the following paragraphs.

Firstly, the most important reason for food insecurity is the spectre of burgeoning population. In November 2022, the world has crossed the mark of 8 billion people. The enhancement of population in such a rapid speed ~~is~~ becoming a heavy burden on every resource. According to Malthus, there is an ^{inverse} relationship between population and resources. Furthermore, according to British Environmentalist Sir Johnathan Posing,

"Continuing population in this region (Great Britain) makes periodic famine unavoidable." Hence, over population is one of the reasons for acute and chronic food insecurity.

Secondly, conflict and political instability are both causes and effects of food insecurity. Today, the world is greatly affected by various conflicts such as Russia-Ukraine war, Israel-Palestine conflict and others. Conflict and political instability exacerbate this menace. This can be justified by the fact that 70% of the world's hungry people are in areas of conflict and violence. Likewise, the Russia-Ukraine war has disrupted the global supply chains. Both of these countries are major global suppliers of wheat, barley, sunflower oil and other affordable food products that developing nations rely on. Russia's invasion of Ukraine has caused a ripple effect around the world, raising the prices of wheat, grain and fertilizer, and the ongoing war has limited or entirely disrupted access to these vital food-producing essentials for the rest of the world. Likewise, World Food Programme, 100% of Gaza's population is at stark risk of famine. To conclude, food insecurity is encouraged and exacerbated by conflict and political instability.

Thirdly, rapid and unhindered urbanization is also responsible for enhancing food insecurity. Due to this practice, large swathes of agricultural land is used for constructing residential areas. The brunt of which is bore by poor stratum of any society because the avenues for producing sufficient food depletes. In addition, a large scale migration has been observed among farmers of rural areas to urban areas. They sell their land for the sake of better lifestyle and income opportunities in urban areas. Because of which, the labour which contributes to producing food substantially shrinks. To cut it short, rapid urbanization is one of the major causes of unabated food insecurity.

Fourthly, climate change has also a fair share in exacerbating the risk of food insecurity. Climate change is caused by global warming, which has led to heat waves, droughts, melting of ice caps, biblical floods, abnormal precipitation, and many other inter-related phenomena. The biblical floods in 2022 is a case at hand, because of which crops were damaged on a high scale. Resultantly, the government had to import those crops which could be grown domestically. This disaster led to severe food insecurity. Furthermore, because of ~~increase~~ increase in intensity of heat waves, locust attacks have become a challenging problem. In the areas of Punjab, agriculture is negatively affected by these insects. Hence, severe floods and locust attacks are some of the many causes of climate change which has led to exacerbating this problem.

Last, but not the least, world has witnessed financialization of food, which has excessively contributed to food insecurity. It can be defined as, the significant role played by financial markets in the agri-food sector. Various markets pertaining to food are in cut-throat competition with each other for accumulating handsome profit. The result of which is price hikes, which has been seen consistently in 2007-08, 2010 and 2012. In addition, Pope Francis has rightly said that "The struggle against hunger and malnutrition is hindered by market priorities, the primacy of profit which reduces food stuff to a commodity like any other, subject to speculation and financial speculation in particular. In short, financialization of food among other causes have weaved the tapestry of food insecurity.

The effects of above mentioned causes of food insecurity are mentioned in the following paragraphs.

First of all, poverty and hunger dance in harmonious relationship to the symphony of food insecurity. This can be justified from the data that in 2022, according to FAO, 691-783 million people in the world faced hunger, which was 122

million more than in 2019 before the Covid 19 pandemic. In fact, 345 million of those people are facing acute level of hunger including starvation. Poverty and hunger complement each other. When the economy of a country is sinking, it has adverse impacts on agriculture and other industries. Because of losses, these industries are shut down and numerous jobs are lost. The loss of jobs leads to poverty and, in the long run to hunger. In conclusion, poverty and hunger is the result of this crisis and a challenge for this century.

Furthermore, Malnutrition is the most drastic effect of food insecurity. Low birth weight, child hood stunting, anaemia in women of reproductive, micronutrient deficiencies are some of many causes of this problem. Like wise, according to WHO, "A diet considered as insufficient intake of vitamins and minerals will obstruct foetal, infant, and child growth and development." These deficiencies leads to mental and physical undernourishment and the affected children will be unable to perform well in every walk of life, especially education. To conclude, malnutrition is a horrendous effect of this serious problem and a challenge for this century.

Moreover, another effect, ~~so~~ a criminally neglected one, of food insecurity is the ever expanding challenge of depression. When the food prices skyrocket because of inflation and economic meltdown, middle and floor classes are hit ^{the} hardest. They ~~feel~~ ^{become} disillusioned and hopeless about their future. Currently, many people have committed suicides because of the ongoing crisis and uncertainty in the state of Pakistan. Such people indulge in illicit and alternative activities to earn their livelihood. Even some people adopt the profession of robbery to meet the needs of their household. Because of this constant depression and anxiety, there has been ~~of~~ observed growing instances of domestic violence. Hence, depression is one of the sad reality of our time due to food insecurity and if it is not stopped, it will exacerbate in the near future.

Lastly, there are other miscellaneous effects of food insecurity.

ty such as acute respiratory system infections, Diarrhoea, malaria, measles, low level of energy; growth failure, delay in maturation, impaired cognitive ability; less ability to resist from infections and illness, reduced life expectancy, growth in maternal mortality, political instability in the food insecure region, emigration and many others. The bitter reality is that this crisis will welcome the upcoming generations with increased might.

The above mentioned effects looks threatening. However, this challenge can be nipped in the bud by adopting the following recommendations. These are necessary and crucial to keep the upcoming generations away from hot weathers.

First things first, the use of fertilizers should be made efficient and reduced as much as possible. According to West, the use of fertilizers on wheat, rice and maize crops could be reduced upto 13-29% and the production is still the same. This is necessary because the use of fertilizers and pesticides contribute to climate change because of which, as mentioned earlier, food insecurity grows.

In addition, the wastage of food should be reduced as much as the possibility can allow. It is because food waste leads to waste of money. It also contributes to climate change. This can be justified by the report of UNEP in 2021, which says that globally, one-third of food produced is lost or wasted - around 1.3 billion tons of food, costing the global economy close to \$940 billion each year. Upto 10% of Green House Gases comes from food that is produced but not eaten. Therefore, it is necessary to avoid or at least reduce the wastage of food in order to keep this century away from the most harmful effects of food insecurity.

Likewise, fair trade should be encouraged between developing and underdeveloping. International trade agreements and World Trade Organization should be reviewed. Such reforms should be brought in this organizations which encourages fair trade and discourage fair trade by imposing rigorous

penalties on those who do not comply. In such manner, the menace of food insecurity can be choked to death.

Moreover, every single country should be encouraged to excel in information and communication technology. At present, WFP uses a method of vulnerability assessment and mapping to conduct food security analysis of vulnerable population, allowing WFP to gather data in real time to properly recognize and evaluate situation in distant areas. ^{Furthermore,} Government and private sectors should join hands and invest in I.T industry to encourage innovation and invention of new technologies to facilitate and protect food insecure regions and population.

Lastly, Knowledge information system should be encouraged and practiced in order to curb food insecurity. Human resource must be developed through proper training, education and skills development. Furthermore, ~~the~~ Knowledge improvement services, early warning systems and management information systems must be adopted because these approaches support all other efforts to address food security. Knowledge information systems are used to collect performance of data related to crop production by using Remote sensing and field data networks to provide early warning and emerging food insecurity situations. FAO, WFP, and IFPRI took a global initiative and made Food Security Information Network to strengthen food and nutrition information system for making reliable and accurate data to guide analytics and decision making. ~~As~~ By adopting the mentioned approaches, the menace of food insecurity ^{can} be successfully eliminated.

All the substance of this essay boils to the conclusion that food insecurity is a great challenge not only for this century generation, but many generations to come. There are three categories of food insecurity, namely Acute, occasional, and chronic food insecurity. There are many causes of food insecurity, but the most pertinent, important, and dangerous ones are Burgeoning population, conflict and political instability. Moreover, rapid urbanization, climate change and financialization of food have

also played their negative role in exacerbating food insecurity. Every cause has an effect, so is true about food insecurity.

This problem has encouraged poverty and hunger, malnutrition, and depression and other interrelated and deadly effects. However,

as every sickness has a cure, so is true about this problem. The feasible solutions to curb food insecurity from becoming a defining

challenge for the century ahead are efficient use of fertilizers, reduction in food waste, enhancement and encouragement of

ICT, fair trade ought to be appreciated and knowledge information system should be adopted. By adopting these prescriptions

food insecurity can be at least mitigated, if not eliminated. It is necessary because the future of this and upcoming generations

is at stake. The sooner we realize it, the better.