



The Impact of Covid-19 Pandemic over the State of Food Security and Nutrition in India

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Introduction to SDGs

- The Sustainable Development Goals (SDGs), : set of 17 interconnected goals intended to serve as a “**roadmap to a better and more sustainable future for all**”.
- More than 150 world leaders came together to formally establish a bold new sustainable development goals -2030.
- The 2030 Agenda : Represents a **common framework of international cooperation** to promote sustainable development.
- As per the United Nations, **approximately 690 million people are hungry**, accounting for slightly less than 10% of the global population.



Figure: This picture depicts the 17 different SDGs adopted by the UN-GA.

What is SDG - 2?

- SDG -2 : only SDG, clearly mentions - concept of nutrition.
- SDG 2, which seeks to "*end hunger, ensure food security and enhanced nutrition, and promote sustainable agriculture,*"
- Objective recognizes that since 2000, great progress has been made in the fight against *hunger and malnutrition*. (ongoing and concentrated efforts are needed)



Figure: SDG 2's primary goal is to achieve "zero hunger" by 2030

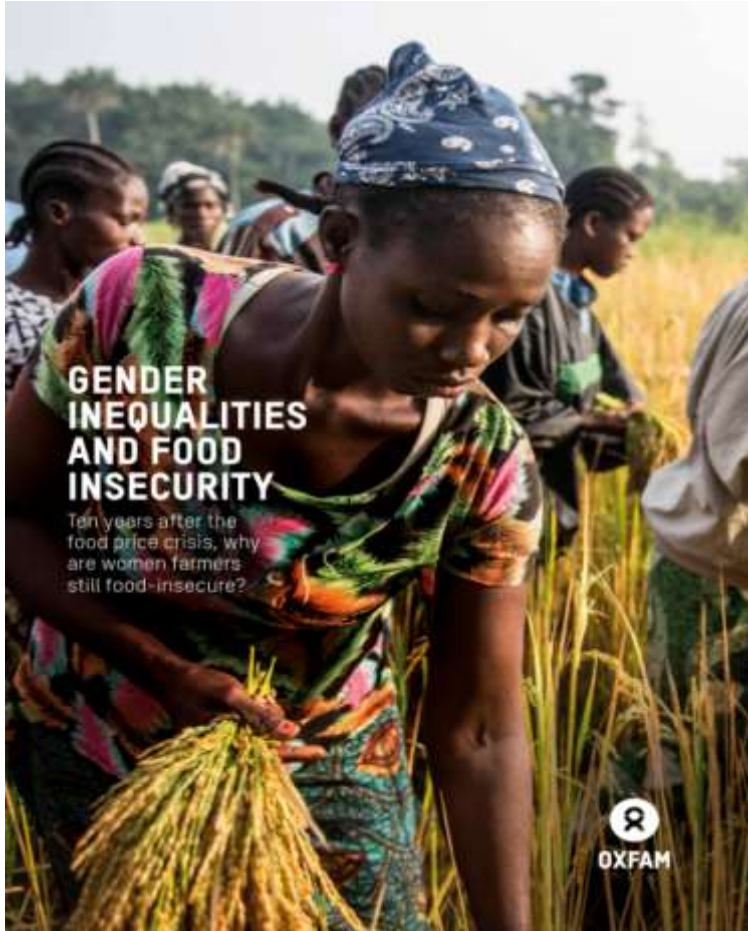
Relevance of Food Security and Human Rights



- Food and nutrition are **basic components of life** .
- Right to food forms an essential part of Right to Life under Article 21. **The availability and accessibility of food forms an essential human right.**
- This is because **the realisation of all other rights like life, liberty, livelihood, equality, and everything else depends on food security and nutrition.**

Figure Source: Community food on South Arizona

Why this topic?



- Food insecurity: poses a risk to all demographics, **women and adolescent girls are more likely to face malnutrition.**
- Pertaining to their requirement for increased nutritional needs associated with menstruation, pregnancy, and lactation.
- Topic chosen: to specifically **analyze how and why are women and children more affected to food insecurity** owing to the PANDEMIC.

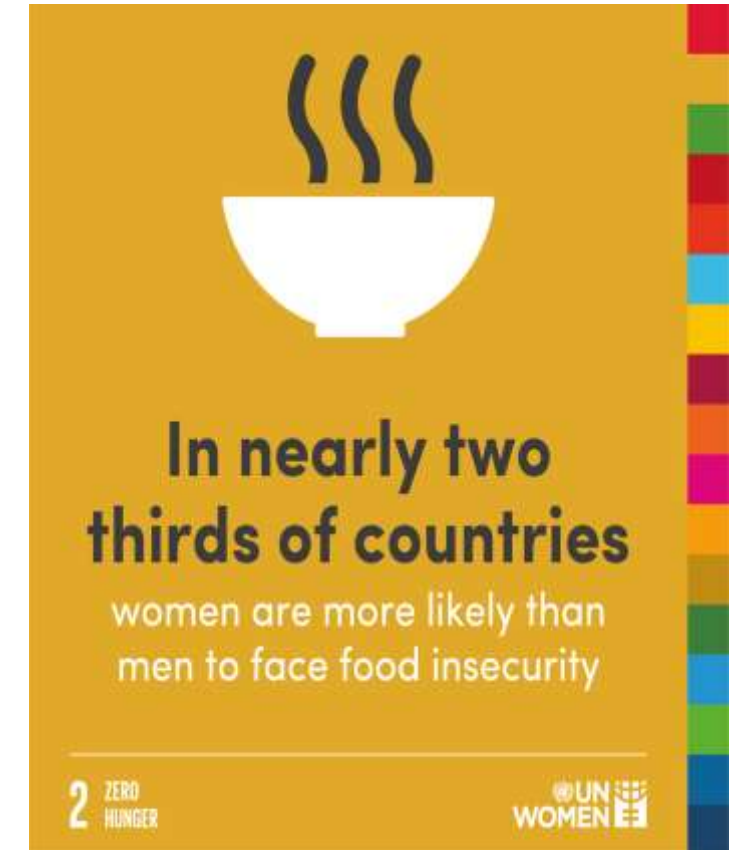


Figure Source: UN Women

Figure: A study conducted by Oxfam suggests that during any food and price crises, farmers and women are the most disproportionately affected group.

Status of Global Food Security

- The COVID-19 pandemic : worsen the existing challenges to food security.
- While it is estimated that **265 million people would face some amount of food insecurity**, it was recorded that about **132 million people were malnourished by the end of 2020**.
- The **FAO** noted that due to COVID-19 trends in food insecurity, disruption in food supply, and income contribute to the increased the risk of child malnutrition, as food insecurity affects **diet quality**, including the quality of children's and women's diets, and people's health in different ways.

At the beginning of 2020, **135 million people faced acute food insecurity.**

By the end of 2020, **this number could increase to 265 million.**

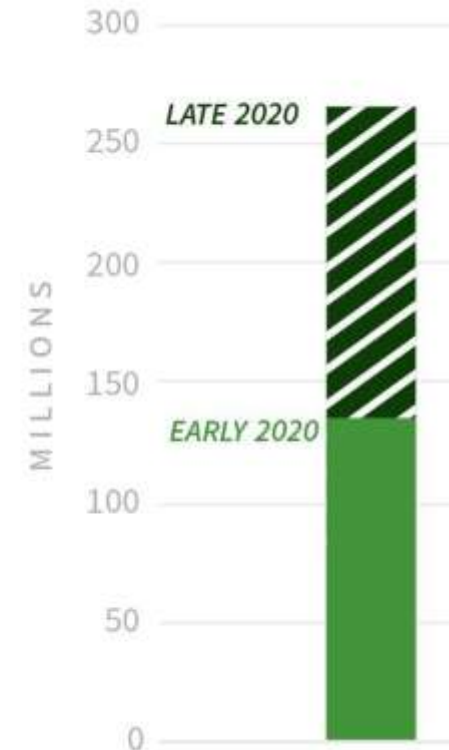


Figure: Data released by the Centre for Strategic and International Studies

Status of Food Security in India

- According to UN-India, : Nearly **195 million undernourished people in India**
- Ranked 101 out of 116 countries in Global Hunger Index 2021.
- **43% of children in India are chronically undernourished**
- **71 out of 113 major countries** in food security index 2020

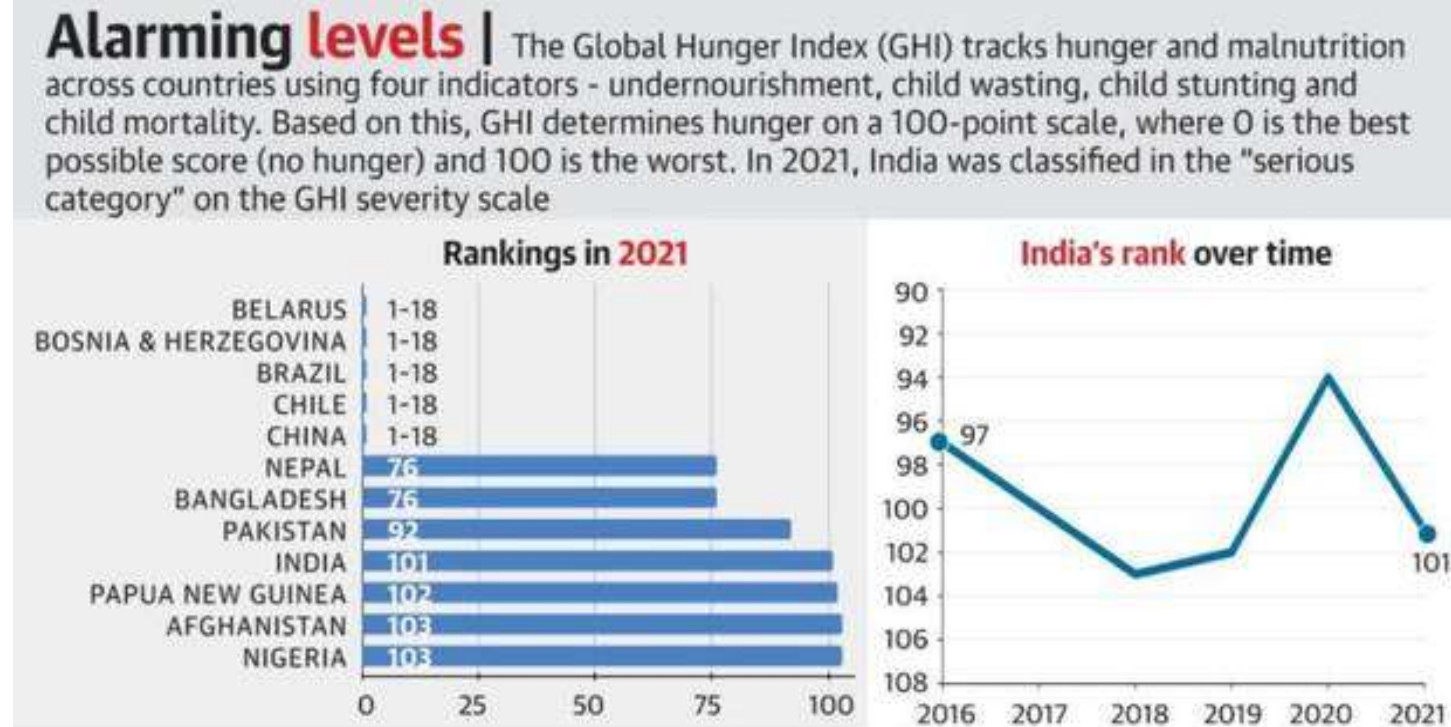
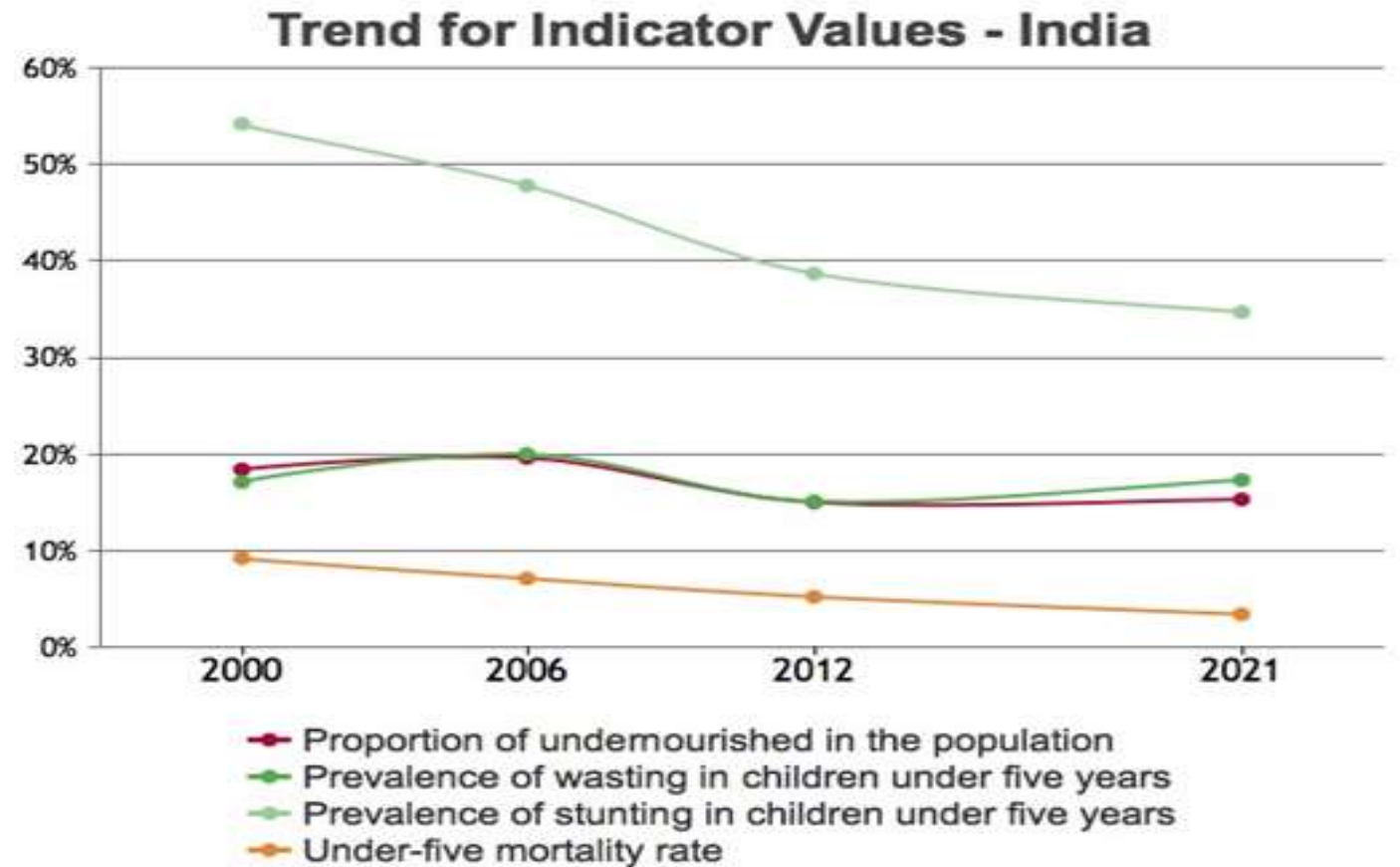


Figure: Data from the Global Hunger Index: India has slipped to 101st position in the Global Hunger Index (GHI) 2021 of 116 countries, from its 2020 position of 94th

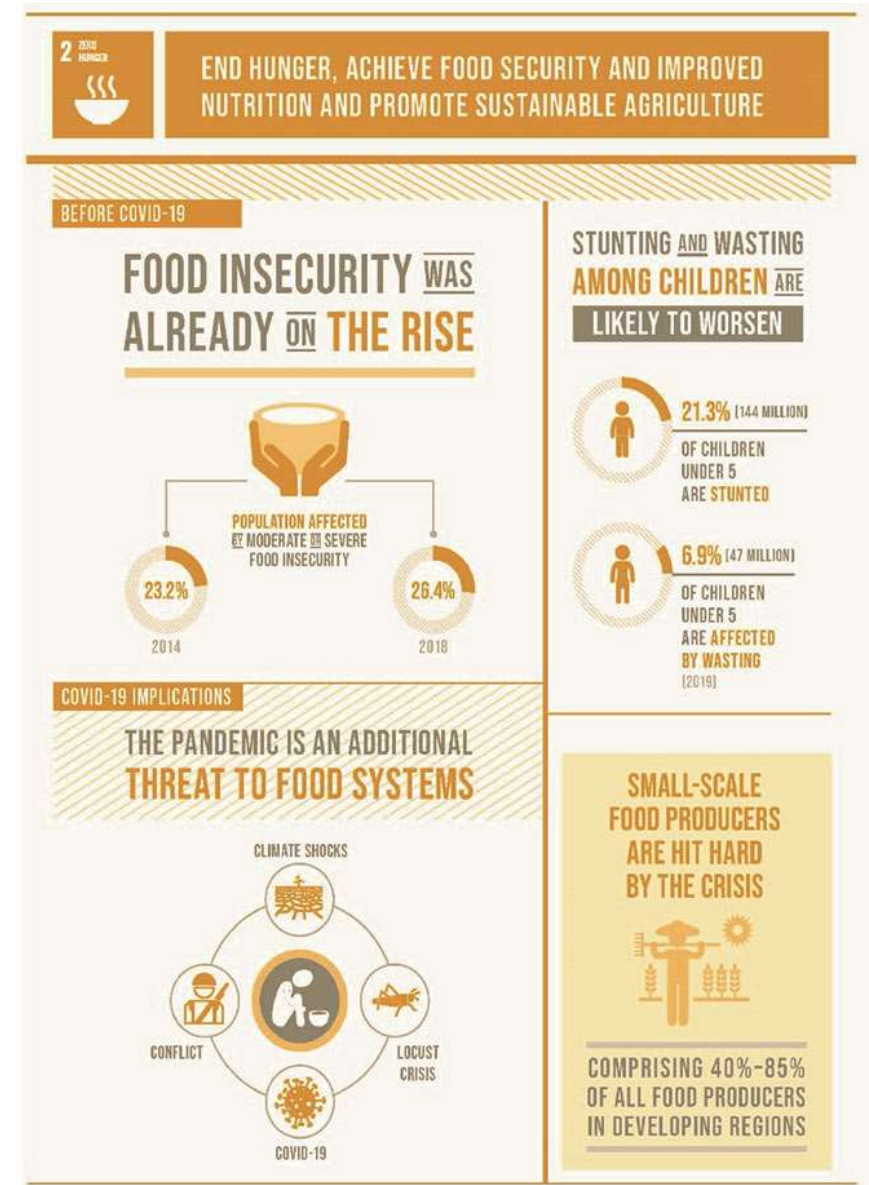
- The COVID-19 pandemic followed by lockdown had an adverse negative impact on **household food insecurity (HFI)** due to a reduction in the food supply as well as a dramatic loss of household income ultimately increasing the greater risk of malnutrition in women.
- In India, it can be estimated that women are exposed to higher chances of malnutrition than men due to various factors such as poverty, food unavailability, lack of awareness, food taboos, and gender bias. As per a recent report by UNICEF, “**Malnutrition in women is rooted in poor care practices at the individual, household, community, and societal levels**”.



[Figure: Global Hunger Index of 2021](#)

Hypothesis & Research Question

- The Hypothesis of this research paper is that ***the impact of Covid-19 has delayed the goal of reaching zero hunger by 2030 and adversely affected the women and children.*** Before the Pandemic, the world had been making steady progress although it was uneven and not upto the mark towards the global goals. The pandemic threatens to reverse years progress on food security, hunger and poverty.
- The Research Questions are -
 - How pandemic has affected the track of achieving zero hunger till 2030?
 - What are the challenges faced by women and children due to food insecurity and malnutrition?
 - What are the laws, policies and schemes undertaken by the government for improving the impact of pandemic?
 - What are the shortcomings faced by the government in protecting every person's right to food?
 - What policies and schemes the government can undertake to make the condition better?



[Figure Source: 'Honestly Modern' by Jen Panaro](#)
[depicting relation between zero hunger and Covid-19](#)

Research Objectives

- To analyse how pandemic has affected the track of achieving zero hunger till 2030.
- To identify the challenges that impact food security and nutrition.
- To examine the laws and policies associated to food security.
- To analyse the impact of food insecurity and malnutrition on women and children
- To **recommend solutions** to government and other stakeholders that can ensure right to food and nutrition.



Research Methodology

- The research work is completed in adherence to the ***Doctrinal method*** of research and the researchers have collected Information from various sources. The researchers have undertaken a thoroughly ***Analytical Research Approach***.
- Information has been taken from ***secondary sources*** that are collected from several articles, books, related documents, etc. regarding SDG2 and food security and nutrition. The project will contain the existing format and establish a relationship with the subject format.





Challenges

1. **FOOD PRICE INFLATION-** According to data released by the OECD, it was estimated that global we are witnessing about 8-9% of food inflation and that on average 12% of average income is spent on food for the middle class and 35% of income is spent on food in cases of poorer households.
2. **DOMESTIC INFLATION AND OTHER INDICATORS-** Inflation based on the wholesale pricing index (WPI) has now been in double digits for a year, While oilseeds have been experiencing more than 20% inflation for an year, wheat inflation exceeding 10% for last five months, Maize and barley have seen 25% inflation for more than six months.
3. **CLIMATE CHANGE-** Any change in temperature which plays a major role in the growth of crops directly impacts the quality and quantity of food, Accessibility of food is highly affected due to the adverse impact on the income of farmers further causing loss of livelihood and asset damage for all. Decrease in the nutritional quantity of food such as proteins and minerals due to increased CO2 levels leading to issues such as 'Hidden Hunger'.



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4. **IMPACT OF LOCKDOWN ON FOOD SECURITY**- The impact of lockdown is divided into two categories: **Explicit** and **Implicit** impacts. Explicit impact such as loss of income for daily wage labour, high increase in unemployment negatively affecting purchasing power. **Implicit** impacts such as Hidden Hunger.
5. **FOOD ADULTERATION**- The 2019-2020 FSSAI report alarmingly reported that 38% of food samples were adulterated and that adulteration had doubled since 2012, and it has escalated up to 60% during the pandemic.
6. **OVERPOPULATION**- There is increased risk to quality of food as producers try to seek shortcuts for higher yield which leads to degradation of long term production.

GOVERNMENT FOOD SECURITY SCHEMES & LAWS



FOOD NORMS UNDER MID-DAY MEAL (PER CHILD PER DAY IN GRAMS)			
For Primary Classes		For Upper Primary Classes	
Foodgrains	100gms	Foodgrains	150gms
Pulses	20gms	Pulses	30gms
Vegetables	50gms	Vegetables	75gms
Oil and fats	5gms	Oil and fats	7.5gms

Source: Ministry of Human Resource Development
#BanegaSwasthIndia

ndtv.com/swasthindia

The table is presented in a two-column format with a central column of food item images. The background is white with a black border. The text is in a bold, sans-serif font.

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**PUBLIC DISTRIBUTION
SYSTEM INDIA**

**POSHAN
Abhiyaan**

PM's Overarching
Scheme for Holistic
Nourishment

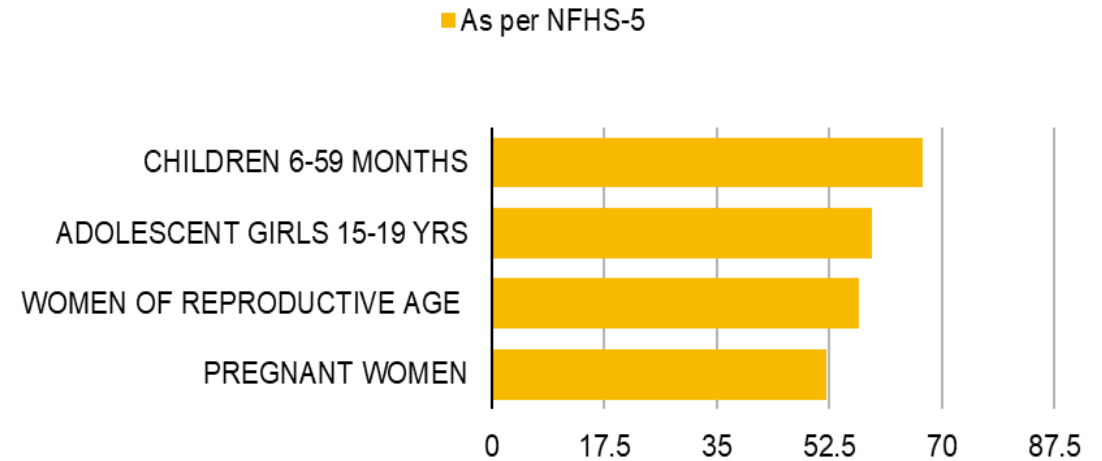
सही पोषण - देश रोशन



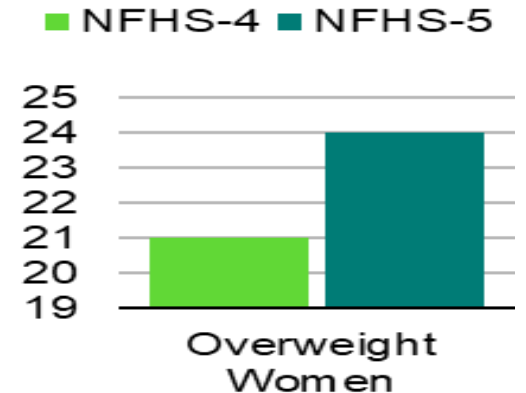
Pradhan Mantri Garib Kalyan
Anna Yojana

Findings

- As per National Family Health Survey-5 (2019-21), **Anaemia prevalence** in children of 6- 59 months is 67%, in adolescent girls 15-19 yrs is 59%, women of reproductive age are 57%, pregnant women 52%, and non-pregnant women is 57%.
- In comparison to NFHS-4, NFHS-5 indicates that **obesity prevalence** in women has increased **from 21% to 24%**.
- Obese weight is more susceptible **fatal illnesses** to such as diabetes, cardiovascular disease, cancer, Cushing syndrome, Osteoarthritis, hormonal changes causing PCOS, and many others.

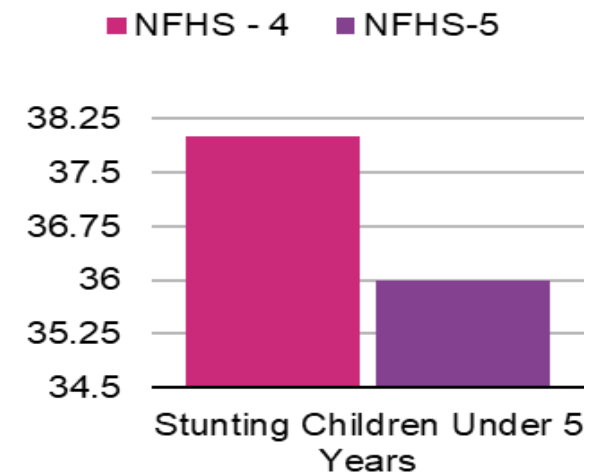
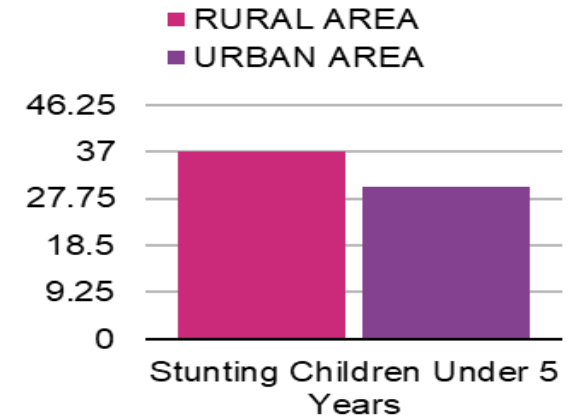


Anaemia prevalence as per NFHS-5 in women and children



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- The level of stunting among children under 5 years has marginally **declined from 38 to 36 percent** for India in the last four years indicating higher among children in **rural areas (37%) than urban areas (30%) in NFHS-5.**
- Malnutrition has adverse effects on **self-care behaviors** among pregnant women affecting **body mass index (BMI)** and **fetal growth** as well as **undernutrition (stunting)** in children.
- Children with malnourishment experience **lower IQs** impacting, lower cognitive test scores, delayed enrolment, higher absenteeism, and more class repetition compared with non-stunted children.



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- The association between containment and **socioeconomic and nutritional** results is depicted.
- We find that moving from no containment to average levels of containment is associated with a **13 pp increase** in the share of food categories in comparison to National Family Health Survey (NFHS 4).
- An increase in the likelihood that **emotions of despair** have gotten worse by 13 percentage points (pp) and an increase in the likelihood that feelings of **fatigue** have gotten worse by 20 pp.

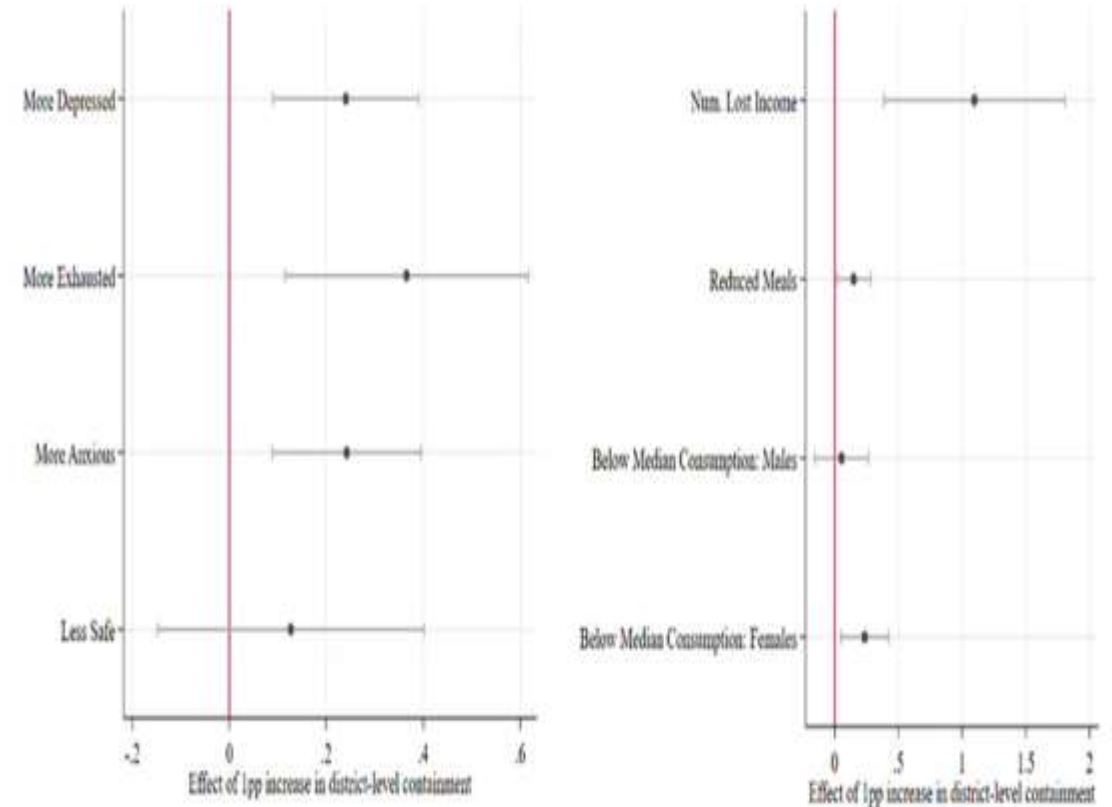


Figure: Data released by The Print on Effect of 1pp increase in district-level containment

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- Household Food Insecurity was found to have substantially increased from **21% to 80%** before and during COVID-19, with 62% of households shifting from food security to insecurity and 17% staying food insecure.
- When compared to children from food secure families, children from initially and persistently food insecure homes were **less likely to eat a varied diet** (adjusted odds ratio, AOR: 0.56, P = 0.03 and AOR: 0.45, P = 0.04, respectively).
- As per Child Rights and You (CRY) the lockdown had significantly affected their **child's eating routine**. Women and girls are particularly impacted because **discrepancies in intra-household food distribution** may widen due to a lack of food security

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- The COVID-19 pandemic followed by lockdown had an adverse negative impact on **household food insecurity (HFI) due to a reduction in the food supply as well as a dramatic loss of household income** ultimately increasing the greater risk of malnutrition in women.
- The health of women and girls has major implications not just on themselves but also on all family members, often known as the **Intergenerational cycle of malnutrition.**

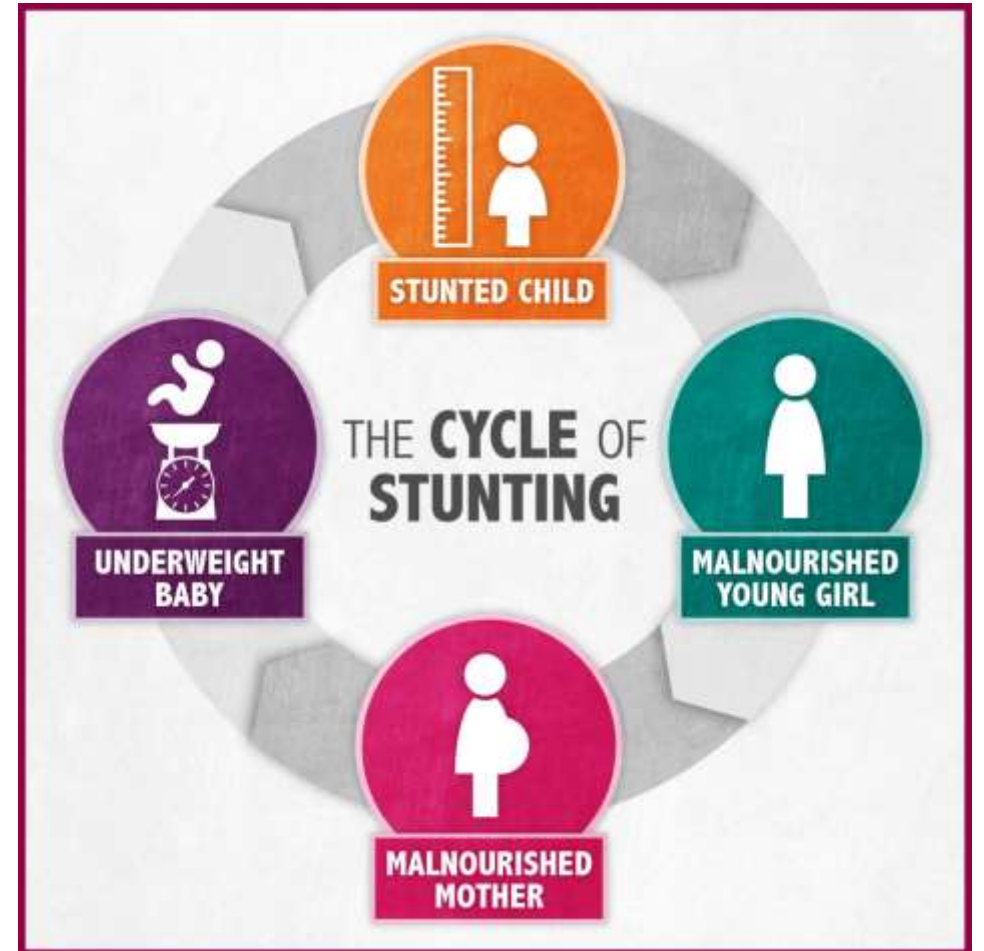


Figure: Data released on Concern Worldwide, US on how stunting in children is manifested through a cycle of malnourished mothers, resulting in underweight babies, which experience stunted growth and chronic malnutrition over time.

Recommendations



1. **Expansion of food basket:** The Public distribution system should be strengthened and the food basket can be enlarged to include millets, pulses. This may certainly help in addressing the issue of zero hunger.
2. **Job Creation:** Attention need to be given to the horticulture sector on a priority basis. Women farmers are at the forefront of horticulture and special attention needs to be given to both their technical and economic empowerment. One of the way of doing this is by promoting food processing industries.
3. **Livelihood Security:** A livelihood security for small and marginal farmer from rural households , women within them, can be ensured by strengthening the Mahatma Gandhi National Rural Employment Guarantee Act(MGNREGA).

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4. **Role of self help groups:** Platforms like Self-Help Groups can be used in rural regions to raise awareness and prepare meals with fortified commodities. Innovation by states in the utilisation of flexi funding under the POSHAN Abhiyan includes the fortification of milk in Kerala with Vitamin A and Vitamin D, fish supplies, and mushroom cultivation in Bihar.
5. **Digitise operations:** It is possible to draw lessons from the Mo Chhatua programme in Odisha, which uses a smartphone application to digitise operations and control the distribution of Take-Home Rations to beneficiaries.
6. **Non-Discriminatory Practices:** Adopt measures to eradicate any kind of discriminatory practices, especially with respect to gender, in order to achieve adequate levels of nutrition within the household.
7. **Change in Eating Practices:** Bearing in mind the cultural values of dietary and eating habits in different cultures, establish methods for promoting food safety, positive nutritional intake including fair distribution of food within communities and households with special emphasis on the needs and rights of both girls and boys, as well as pregnant women and lactating mothers, in all cultures.

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8. Develop and/or **strengthen mapping and monitoring mechanisms** in order to better coordinate actions by different stakeholders and promote accountability.
9. **Requirement of Public Institutions**: Identify the roles and responsibilities of the relevant public institutions at all levels in order to ensure transparency, accountability, and effective coordination and, if necessary, establish, reform or improve the organization and structure of these public institutions.
10. **Requirement of law**: Consider the integration of the right to food into national legislation, such as the constitution, a framework law, or a sectoral law, thus setting a long-term binding standard for government and stakeholders.
11. Adopting Agricultural practices that are sustainable



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- We would also like to extend our thanks to our **Guest Speakers** throughout the internship who have imparted valuable knowledge in the field of human rights and related subjects, and **all our Fellow Co-Interns** for their constructive enthusiasm, which has in great part led us to the completion of this project.

THANK YOU !

NATIONAL HUMAN RIGHTS COMMISSION



Project under the theme of:

SDG-2- FOOD SECURITY AND NUTRITION IN INDIA

On

**THE IMPACT OF COVID-19 PANDEMIC OVER THE STATE OF FOOD
SECURITY AND NUTRITION IN INDIA**

SUBMITTED TO:

NATIONAL HUMAN RIGHTS COMMISSION (NHRC)

*(This project is being submitted for the partial fulfilment of Online Short Term
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June-July 2022

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INTRODUCTION

A. DEFINING FOOD SECURITY: ORIGIN AND MODERN DEVELOPMENTS

The requirement of food security has been with human civilization since time immemorial but defining the concept of food security has only developed over time with the advancement of scientific knowledge. In modern times, the process of defining food security started primarily after the World Food Conference of 1974 wherein the Universal Declaration to eradicate hunger and malnutrition was adopted. The conference proclaimed the right of every man, woman, and child to be free from hunger and malnutrition. The definition adopted by the conference was:

“Availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices.” (United Nations, 1975)

This definition had focused mostly on the supply side of food with the global intent to stabilize food prices. Later on, in 1983 Food and Agriculture Organization (FAO) of the United Nation expanded the scope of definition by including access to food for vulnerable populations. It defined food security as:

“Ensuring that all people at all times have both physical and economic access to the basic food that they need.” (FAO, 1983).

The improved definition focused on both the demand and supply aspects of food security. Even after the Green Revolution, when the incidence of poverty and malnutrition did not decrease around the globe, the policy makers identified lack of effective demand as one of its main reasons. The scope of the definition got broader with the addition of the concept of temporal dynamics of food insecurity and food security was defined as:

“Access all people at all times to enough food for an active, healthy life.” (World Bank, 1986).

B. SDG 2: ZERO HUNGER



The Sustainable Development Goals (SDGs), also popularly known as Global Goals are a set of 17 interconnected global goals intended to serve as a “roadmap to a better and more sustainable future for all”. The United Nations General Assembly (UN-GA) established the SDGs in 2015, with the goal of achieving them by 2030. They are contained in one UN-GA Resolution known as the 2030 Agenda, sometimes known informally as Agenda 2030.

SDG 2’s primary goal is to achieve “zero hunger” and in totality, the goals reads as

“End hunger, establish food security, boost nutrition, and promote sustainable agriculture.”

SDG 2 emphasizes the intricate interdependence of food security, nutrition, rural transformation, and sustainable agriculture. According to the United Nations, approximately 690 million people are hungry, accounting for slightly less than 10% of the global population. Therefore, under SDG 2, 8 sub-targets have been set up to realize the overall goals of the entire exercise.

C. FOOD SECURITY AND NUTRITION VIS-À-VIS HUMAN RIGHTS IN INDIAN CONTEXT

The Right to food is a necessary concomitant of a dignified life, and accordingly, Article 21 of the Indian Constitution, guarantees a fundamental right to life and personal liberty, when read in conjunction with Article(s) 39(a) and 47 help us to understand the nature of the State’s obligations to ensure the effective realization of this right. As a result, the Constitution guarantees the Right to Food, which is enforceable through the constitutional remedy given in Article 32 of the Constitution. Article 39(a) of the Constitution, enunciated as one of the country's Directive Principles, compels the State to direct its actions toward ensuring that all of its citizens have the right to a sufficient means of subsistence. Similarly, Article 47 states

that the State's principal role is to improve its people's nutrition and standard of living.

Alongside the Constitutional provisions which provide for the Right to Food and nutrition as an inalienable fundamental right, multiple Governments in India have tried to codify various laws and have enacted multiple schemes to better address the concerns of food security. Over the last two decades, the government has taken significant steps to combat undernutrition and malnutrition, including the implementation of mid-day meals in schools, Anganwadi systems to provide rations to pregnant and lactating mothers, and subsidized grain for those living below the poverty line through the public distribution system. The National Food Security Act (NFSA) of 2013, which makes food access a legal right, strives to ensure food and nutrition security for the most disadvantaged people through its accompanying schemes and programs.

Food and nutrition security exists when all people have physical, social, and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life, and when this access is supported by an environment of adequate sanitation, health services, and care, allowing for a healthy active life. Thus, it can be said that food security is not a simple idea but a layered and complex phenomenon. It has three dimensions:

1. Availability of food - Presence of enough food for all purposes.
2. Accessibility of food - Absence of barrier to access of food.
3. Affordability of food- Capacity of all persons to buy food of acceptable quality.

Food availability means that enough safe and nutritious food is either domestically produced or imported from the international market. Food availability does not ensure food accessibility. For food to be accessible, individuals or families must have sufficient purchasing power or ability to acquire quality food at all times while utilization demands sufficient quality and quantity of food intake.

Food security entails ensuring adequate food supply to people, especially those who are deprived of basic nutrition. Food security has been a major concern in India according to the UN, there are nearly 195 million undernourished people in India. Also, roughly 43 percent of children in India are chronically undernourished. India ranks 71 out of 113 major countries in terms of the Food Security Index 2021. Food security is required to ensure that each individual of a country has access to safe and healthy food at all times of the year. India is one of the few countries which have experimented with a broad spectrum of programs for improving food security.

Women as farmers, Labour, and entrepreneurs are the significant driving force of India's agriculture. According to OXFAM (Oxford Committee for Famine Relief 2018) agriculture sector employs 80 percent of all active women in India, women comprise 33 percent of the agricultural labor force, and 48 percent of the self-employed farmers. Women are thus impaired in fulfilling their potential socio-economic roles in food and nutrition security and in ensuring care, health, and hygiene for themselves and their families. This is aggravated by the fact that women themselves are often more vulnerable or more affected by hunger and malnutrition than men, especially by iron deficiency and undernourishment during pregnancy and lactation. Losses at the time of harvesting, processing still more losses at the time of storage, wastage of meals 25 to 30 percent food loss, hence food security is important.

In tribal areas, there are malnutrition so many incidences of death, and handicap happens. While in rich families also we do not observe a balanced diet. Most of the families go for fast food, Junk food which is poor in many minerals, vitamins, carbohydrates, protein fat so in some families, only 2-3 vegetables are cooked so they don't get a balanced diet and people are occasionally ill, hence the nutritional security is important.

D. EFFECTS OF PANDEMIC ON SDG2

The emergence of the Covid-19 pandemic was a serious bane not only for food security but also for SDG 2 and its goal of achieving Zero Hunger by 2030. The pandemic which subsisted in India in the form of a total of 3 different waves spanning nearly 2 years has not only seriously hampered and damaged the ongoing progress of realizing the developmental goals but also negatively contributed to the same. The pandemic directly as well as indirectly contributed to the negative growth in this area. This is because directly the availability of food security was hampered due to continued lockdown which effectively froze multiple supply chains and hunger and malnutrition arose during this period. Additionally, the rise of inflation, closure of businesses, lower income due to no work, and other such factors have also indirectly slowed down the entire process. In light of the same, the FAO noted that trends in food insecurity, disruption in the food supply, and income contribute to *“increasing the risk of child malnutrition, as food insecurity affects diet quality, including the quality of children's and women's diets, and people's health in different ways”*.

The impact of which the COVID-19 outbreak and lockdown put on can be better understood

in terms of the enormous strain on agricultural output and disrupted the worldwide value and supply chain. Statistically speaking, as a direct result of the lockdown, malnutrition and insufficient food availability became a serious challenge for households, with the poorest suffering the most. It was earlier recorded that more than 132 million people will be malnourished by 2020. According to a recent study, the COVID-19 pandemic could result in a 14% increase in the prevalence of moderate or severe wasting among children under the age of five. It is also pertinent to note that this is just one aspect of the pandemic-induced drawback to the global progress on food security. All of these factors are reasons which motivated us to undertake research under this heading to better try and explore how the pandemic has strained the sustained global goals of zero hunger, find out specific areas which have been impacted, and suggest solutions for the same.

RESEARCH METHODOLOGY

A. RESEARCH QUESTIONS

1. How pandemic has affected the track of achieving zero hunger till 2030?
2. What are the challenges faced by women and children due to food insecurity and malnutrition?
3. What are the laws, policies and schemes undertaken by the government for improving the impact of pandemic?
4. What are the shortcomings faced by the government in protecting every person's right to food?
5. What policies and schemes the government can undertake to make the condition better?

B. RESEARCH OBJECTIVE

1. To analyse how pandemic has affected the track of achieving zero hunger till 2030.
2. To identify the challenges that impact food security and nutrition.
3. To examine the laws and policies associated to food security.
4. To analyse the impact of food insecurity and malnutrition on women and children
5. To recommend solutions to government and other stakeholders that can ensure right to food and nutrition.

C. RESEARCH METHODOLOGY

The research work is completed in adherence to the doctrinal method of research. Information has been taken from secondary data that are collected from several articles, books, related documents, etc. regarding SDG2 and food security and nutrition. The researchers have undertaken a thorough

analytical research approach and the project will contain the existing format and establish a relationship with the subject format.

D. RESEARCH HYPOTHESIS

The impact of Covid-19 has delayed the goal of reaching zero hunger by 2030 and adversely affected women and children.

FEEDING THE WORLD: GLOBAL PERSPECTIVE FOR FOOD SECURITY AND NUTRITION IN INDIA

“Conflict and hunger are closely intertwined – when one escalates, the other usually follows. As in any crisis, it is the poorest and most vulnerable who are hardest hit, and in our globalized world, the impact of this conflict will reverberate across continents.”

These are the words of Gilbert Houngbo, former Prime Minister of Togo now President of the United Nations’ International Fund for Agricultural Development (IFAD).

Overcoming the scourge of hunger will require the concerted efforts of the whole world. The international community has two key roles to play in this regard:

1. The first is to improve its support for regional and national efforts.
2. The second is to coordinate responses to global challenges related to food insecurity and malnutrition.

The challenge for global governance is to ensure that these various actors are not duplicating activities and that their administrative requirements do not place an unreasonable burden upon beneficiary countries. High fragmentation means that many developing countries still struggle to conciliate their own strategic needs and priorities with the procedures, conditions, timeframes, limits, and portfolios of a very broad number of partners. The problem is even more acute for least developed countries, which usually lack the resources and capacity to manage a large number of partnerships and are more reliant on international assistance. Organizations and agencies in the UN system are making a major effort to streamline and coordinate their assistance through the work of the UN Country Teams, through joint programming, and through activities such as the MDGs and SDGs and have also developed the UCFA to guide and coordinate their actions. With respect to addressing global challenges related to food security and nutrition, some progress has been made in addressing issues that require global efforts such as climate change, biodiversity, genetic resources, excessive price volatility, international fishing, trade, food standards, and others. While political attention and priority have accelerated since the 2008 food crisis, further progress will require, in many cases, finding consensus and overcoming some difficult political and economical differences.

A. The Challenge

Globally, the proportion of undernourished people in developing regions has fallen by almost half since 1990, from 23.3% in 1990-1992 to 12.9% in 2014-2016. As per FAO estimates, 2017 saw the third consecutive rise in world hunger, with the absolute number of undernourished people i.e. those facing chronic food deprivation increasing to 821 million. One in every 9 people in the world is undernourished. Asia's decreasing trend in undernourishment seems to be slowing down significantly, with 515 million deemed undernourished in 2017. Unless we profoundly rethink global food and agricultural systems, it is estimated that the number of hungry people worldwide could drastically climb by 2050.

B. Why is this important?

Working to improve food and agriculture can have a substantial impact on the attainment of the other 16 Sustainable Development Goals, as it can help combat climate change, bolster economic growth, and contribute to peace and stability in societies around the world. Currently, our soils, fresh water, oceans, forests, and biodiversity are being rapidly degraded. Climate change is putting greater pressure on the resources we depend on, and increasing risks associated with natural disasters. Rural women and men who can no longer make ends meet on their land are being forced to migrate to cities in search of opportunities. Building resilience against natural disasters will be an important part of the global fight against hunger, as crises exacerbate food insecurity issues in countries affected by them.

C. How can we address this?

Goal 2 of the 2030 Sustainable Development agenda seeks to end hunger and all forms of malnutrition and double agricultural productivity in the next 15 years. Ensuring this sustainable access to nutritious food universally will require sustainable food production and agricultural practices.

D. What is the current state of global food security?

- Two years of the COVID-19 pandemic have already taken a considerable toll on global food systems – and the ability of the world to feed its 7.9 billion people.
- Ending hunger is the second of the UN's 17 Sustainable Development Goals to achieve by 2030.
- In the 2021 State of Food Security and Nutrition in the World report – a collaboration between five UN agencies – the authors recognize that achieving this goal has become more challenging.

- Between 720 million and 811 million people in the world faced hunger in 2020, around one in 10, according to UN estimates – and roughly 70 million to 161 million more people faced hunger in 2020 than in 2019.
- Some regions are more affected than others. About one in five people in Africa (21%) faced hunger in 2020 – more than double the proportion of any other region and a 3 percentage point increase in one year, the report says.
- Malnutrition affects how children grow. In 2020, about 22% of under-fives – or just over 149 million – suffered from stunting, and nearly three-quarters of children with such impaired growth lived in just two regions: Central and Southern Asia (37%) and sub-Saharan Africa (37%).

E. Uniting and Organizing to Fight Hunger

Good governance for food security and nutrition at all levels – global, regional, and particularly national – is a prime requisite for progress in the fight against hunger and malnutrition. Good governance requires governments to prioritize strategies, policies, programmes, and funding to tackle hunger and malnutrition, and the international community to coordinate and mobilize meaningful support, whether through humanitarian or development assistance, nationally, bilaterally, or multilaterally, that is aligned with country priorities. The persistence of widespread hunger, and in more recent years the economic crisis and excessive volatility of food prices, have exposed the fragility of global mechanisms for food security and nutrition. Coordination between actors at the national, regional, and global levels has been inadequate. Overcoming the structural causes of hunger and malnutrition will require promoting coherence of all appropriate national and international policies with the right to food, convergent policies, strategies and programmes that give urgent priority to meeting both the long-term needs and emergency requests for food security and nutrition. Successful pursuit of these objectives requires cross-sectoral government support, political will, and long-term coordinated actions. Interventions need to be properly financed and benefit from adequate capacities both to implement them and monitor their impact⁸².

The following seven steps are recommended to implement and ensure food security globally:-

Step One: Identify who the food insecure are, where they live, and why they are hungry. Using disaggregated data, analyze the underlying causes of their food insecurity to enable governments to better target their efforts.

Step Two: Undertake a careful assessment, in consultation with key stakeholders, of existing

policies, institutions, legislation, programmes, and budget allocations to better identify both constraints and opportunities to meet the needs and rights of the food insecure.

Step Three: Based on the assessment, adopt a national human-rights-based strategy for food security and nutrition as a roadmap for coordinated government action to progressively realize the right to adequate food. This strategy should include targets, timeframes, responsibilities, and evaluation indicators that are known to all, and should be the basis for the allocation of budgetary resources.

Step Four: Identify the roles and responsibilities of the relevant public institutions at all levels in order to ensure transparency, accountability, and effective coordination and, if necessary, establish, reform or improve the organization and structure of these public institutions.

Step Five: Consider the integration of the right to food into national legislation, such as the constitution, a framework law, or a sectoral law, thus setting a long-term binding standard for government and stakeholders.

Step Six: Monitor the impact and outcomes of policies, legislation, programmes, and projects, with a view to measuring the achievement of stated objectives, filling possible gaps, and constantly improving government action. This could include the right to food impact assessments of policies and programmes. Particular attention needs to be given to monitoring the food security situation of vulnerable groups, especially women, children, and the elderly, and their nutritional status, including the prevalence of micronutrient deficiencies.

Step Seven: Establish accountability and claims mechanisms, which may be judicial, extrajudicial, or administrative, to enable rights-holders to hold governments accountable and to ensure that corrective action can be taken without delay when policies or programmes are not implemented or delivered the expected services.

F. INDIA AND GOAL 2

South Asia still faces one of the greatest hunger burdens, with over 15% of the population considered undernourished. How we grow and consume our food has a significant impact on levels of hunger, but it doesn't end there. If done right, agriculture and forests can become sources of decent incomes for the global population, the engines of rural development, and our vanguard against climate change. The agricultural sector accounts for about 40% of the total employment in India. However, the agricultural, forestry, and fishing sectors contribute only

15.5% to GDP value-added. The Government of India has prioritized strengthening agriculture through measures in irrigation, crop insurance, and improved varieties.

SUSTAINABLE DEVELOPMENT GOAL:2

A. WHAT IS SDG 2?

SDG 2, which seeks to "end hunger, ensure food security and enhanced nutrition, and promote sustainable agriculture," recognized the need for better nutrition.

The objective recognizes that since 2000, great progress has been made in the fight against hunger and malnutrition. However, ongoing and concentrated efforts are needed, particularly in Asia and Africa, to eradicate hunger, food insecurity, and malnutrition for all.

At the UN Sustainable Development Summit in September 2015, more than 150 world leaders came together to formally establish a bold new sustainable development agenda. The Agenda is officially known as "*Transforming Our World: 2030 Agenda for Sustainable Development*," and it was adopted by all 193 UN Member States.

B. THE 2030 AGENDA:

The 2030 Agenda, which expands on the Millennium Development Goals, includes a Declaration, 17 Sustainable Development Goals (SDGs), 169 targets, and a section on ways to implement them and rekindle international cooperation, as well as a framework for review and follow-up. The 2030 Agenda became operative on January 1st, 2016.¹

The SDGs bind all governments to make extensive, universal, and integrated changes over the next fifteen years, including eradicating hunger and malnutrition by 2030. In order to ensure that no one is left behind, countries will mobilize their efforts to combat climate change, end all forms of poverty, and end inequities. The SDGs won't be accomplished unless sufficient and ongoing investments in healthy eating are made. SDG 2 expresses the goal of "Ending hunger, achieving food security, improving nutrition, and promoting sustainable agriculture," however at least 12 of the 17 Goals have indicators that are very important to nutrition.²

The SDGs will face an obstacle from malnutrition that is frequently difficult to see. It results

¹ [1] GBD 2017 Population and Fertility Collaborators. Population and fertility by age and sex for 195 countries and territories, 1950-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet* 2018;392:1995–2051.

² [1] Food and Agriculture Organization of the United Nations IFAD, the United Nations Children's Fund, World Food Programme, WHO. *The State of Food Security and Nutrition in the World*. Geneva: World Health Organization, 2018.

from a variety of interconnected variables involving health, care, education, water, sanitation, and hygiene, access to food and resources, women's empowerment, and more, in addition to a lack of sufficient, appropriately nutritional, and safe food. Governments are expected to assume ownership and create national frameworks for achieving the 2030 Agenda even though the SDGs are not legally enforceable. According to the 2030 Agenda, Member States must "perform frequent, inclusive, country-led, and country-driven evaluations of progress at the national and sub-national levels." A group of 230 global indicators that were approved by the Statistical Commission in March 2016 will be used to track the 17 SDGs and their 169 targets. Beginning in July 2016, the UN High-Level Political Forum (HLPF) on Sustainable Development will preside over the monitoring and evaluation of the SDGs' implementation under the auspices of the Economic and Social Council (ECOSOC). All Member States and members of specialized agencies can participate fully and productively through the HLPF.

The 2030 Agenda for SDGs represents a common framework of international cooperation to promote sustainable development. To do so, it encourages all countries (low, middle, and high income) to reach 17 goals. SDG 2 ('End hunger, achieve food security and improved nutrition, and promote sustainable agriculture') is the only SDG that clearly mentions the concept of 'nutrition'. Despite a reduction of nearly 50 million in the number of children under 5 years of age affected by stunting over the last 20 years, another 150 million are still stunted, 50 million children under 5 years are wasted, and 20 million newborn babies are estimated to be of low birth weight. Although in Europe, these figures are much lower, in the south-eastern European region the prevalence of stunting among children under 5 years may be up to 10%.

Section 5 of the Act provides that every child up to the age of fourteen years shall have certain entitlements for his nutritional needs. In the case of children in the age group of six months to six years, age-appropriate meals, free of charge must be provided to them through the local Anganwadi.

In the case of children, up to class VIII or within the age group of six to fourteen years, whichever is applicable, one mid-day meal, free of charge must be given every day, except on school holidays, in all schools run by local bodies, Government and Government aided schools, Section 6 of the Act states that the State Government shall, through the local Anganwadi, must identify and provide meals, free of charge, to children who suffer from malnutrition, so as to meet the nutritional standards specified in Schedule II of the Act.

Section 13 of the Act focuses on women empowerment and provides that the eldest woman in every eligible household, who is not less than eighteen years of age, shall be head of the household for the purpose of issuing ration cards. If at any time a household does not have a woman or a woman of eighteen years or above but has a female member below eighteen years, then the eldest male member of the household shall be the head of the household for the purpose of issuing ration card and the female member, on attaining the age of eighteen years, shall become the head of the household for such ration cards in the place of the male member.

NATIONAL PERSPECTIVE- RIGHT TO FOOD IN INDIA

Though the Indian Constitution does not expressly provide for the Right to Food as a fundamental right, the Constitutional scheme provides for the same. Article 39 (a) of the Constitution states that the State shall direct its policy towards securing the right to an adequate means of livelihood for citizens. Article 47 puts a duty on the State to raise the level of nutrition and standard of living of its people. Most importantly Article 21 of the Indian Constitution provides for the right to life and personal liberty. The right to food is inherent in the right to live with dignity. The Supreme Court of India has recognized this right through various judgments.

In the case of PUCL vs. Union of India, the Court held that the right to food is a fundamental right of all citizens, and ordered that the country's food stocks should be used to prevent hunger and starvation.³ In the case of Peerless General Finance and Investment Co. Ltd. vs. Reserve Bank of India, the Supreme Court quoted Article 25 of the Universal Declaration of Human Rights and held that the right to life includes the right to live with basic human dignity with the necessities of life such as nutrition, clothing, food, shelter, and facilities for cultural and socio-economic well being of every individual. Article 21 protects the "right to life". It guarantees and derives therefrom the minimum needs for existence, including a better tomorrow. Thus the basic right of right to food has been held to be a fundamental right in India.⁴

A. NATIONAL FOOD SECURITY ACT 2013

The Indian Parliament took a major step in furthering the right to food by enacting the National Food Security Act 2013. This Act was enacted in order to achieve food and nutritional security in an equitable manner by assuring that people have access to adequate quantities of quality food at reasonable prices so as to live a life with dignity. It aims to provide subsidized food grains to 75% of India's rural population and 50% of its urban population.

Salient features of the Act:

1. The Act provides that up to 75% of the rural population and 50% of the urban population will be covered under TPDS, with a uniform entitlement of 5 kg per person per month. However, since Antyodaya Anna Yojana (AAY) households constitute the

³ PUCL v UOI - AIR 2003 SC 2363.

⁴ Peerless General Finance & Investment Co. vs Reserve Bank of India - (1992) 2 SSC 343.

poorest of the poor, and are entitled to 35 kg per household per month, the entitlement of existing AAY households will be protected at 35 kg per household per month.

2. It states that foodgrains under TPDS will be made available at subsidized prices of Rs. 3/2/1 per kg for rice, wheat, and coarse grains for a period of three years from the date of commencement of the Act. Thereafter prices will be suitably linked to the Minimum Support Price (MSP).
3. The States/Union Territories have to identify households who will be eligible under TPDS.
4. The Act provides for the setting up of a Grievance redressal mechanism at the District and State levels.
5. Central Government will provide assistance to States in meeting the expenditure incurred by them on transportation of foodgrains within the State and its handling.
6. The Act also makes provisions have been made for the disclosure of records relating to PDS, social audits, and the setting up of Vigilance Committees in order to ensure transparency and accountability.
7. Provision has been made for imposing a penalty by the State Food Commission on any public servant or authority, in case of failure to comply with the relief recommended by the District Grievance Redressal Officer.

B. MAJOR PROVISIONS FOR WOMEN AND CHILDREN

The National Food Security Act 2013 makes the following provisions for women and children: Section 4 provides that every pregnant woman and lactating mother shall be entitled to meals, free of charge, during pregnancy and six months after the childbirth, through the local Anganwadi and maternity benefit of not less than rupees six thousand, in such installments as may be prescribed by the Central Government:

Section 5 of the Act provides that every child up to the age of fourteen years shall have certain entitlements for his nutritional needs. In the case of children in the age group of six months to six years, age-appropriate meals, free of charge, must be provided to them through the local Anganwadi.

In the case of children, up to class VIII or within the age group of six to fourteen years, whichever is applicable, one mid-day meal, free of charge must be given every day, except on school holidays, in all schools run by local bodies, Government and Government aided schools,

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GOVERNMENT FOOD SECURITY SCHEMES

The government has launched several schemes to combat malnutrition- the introduction of mid-day meals at schools, Anganwadi systems to provide rations to pregnant and lactating mothers, and subsidized grain for those living below the poverty line through a public distribution system, schemes like Rashtriya Mahila Kosh(RMK), and committees like General Body and Executive Council of ‘National Institute of Public Cooperation and Child Development (NIPCCD), and ‘Central Social Welfare Board’ (CSWB) govern the food security with respect to women and children. The National Food Security Act (NFSA), 2013, aims to ensure food and nutrition security for the most vulnerable through its associated schemes and programmes, making access to food a legal right.

The Public Distribution System (PDS) evolved as a system of management of scarcity through the distribution of foodgrains at affordable prices. Over the years, PDS has become an important part of the Government's policy for the management of the food economy in the country. PDS is operated under the joint responsibility of the Central and the State/UT Governments. The Central Government, through the Food Corporation of India (FCI), has assumed the responsibility for procurement, storage, transportation, and bulk allocation of food grains to the State Governments. The operational responsibility including allocation within the State, identification of eligible families, Issue of Ration Cards, and supervision of the functioning of Fair Price Shops (FPSs), etc., rests with the State Governments. Under the PDS, presently the commodities namely wheat, rice, sugar, and kerosene are being allocated to the States/UTs for distribution. Some states/UTs also distribute additional items of mass consumption through the PDS outlets such as pulses, edible oils, iodized salt, spices, etc.

The Prime Minister’s Overarching Scheme for Holistic Nutrition or POSHAN Abhiyaan or National Nutrition Mission launched in 2018, is the Government of India’s flagship programme to improve nutritional outcomes for children, pregnant women, and lactating mothers. The POSHAN (Prime Minister’s Overarching Scheme for Holistic Nutrition) Abhiyaan directs the attention of the country toward the problem of malnutrition and addresses it in a mission- mode. NITI Aayog has played a critical role in shaping the POSHAN Abhiyaan. The National Nutrition Strategy, released by NITI Aayog in September 2017 presented a micro analysis of the problems persisting within this area and recommended an in-depth strategy for course correction. With the aim to build a people’s movement (Jan Andolan) around malnutrition,

POSHAN Abhiyaan intends to significantly reduce malnutrition in the next three years

The objective of the PMO Maternity Benefit Programme is to provide partial compensation for the wage loss in terms of cash incentives so that the woman can take adequate rest before and after delivery of the first living child, and the cash incentive provided would lead to improved health-seeking behavior. As per the PMO mandate, NITI Aayog has been assigned to Monitoring and Evaluation of the Maternity Benefit Programme.

Pradhan Mantri Garib Kalyan Anna Yojana (PM-GKAY) played a key role in ensuring additional food security for around 800 million people during the pandemic. Under the PM-GKAY scheme, the government is providing 5 kg food grain per person per month free of cost to 80 crore people covered by the National Food Security Act (NFSA).

The government also launched a number of programmes to double farmers' incomes by 2022. These seek to remove hindrances for greater agricultural productivity, especially in rain-fed areas. The National Food Security Mission, Rashtriya Krishi Vikas Yojana (RKVY), the Integrated Schemes on Oilseeds, Pulses, Palm oil and Maize (ISOPOM), Pradhan Mantri Fasal Bima Yojana, the e-marketplace, as well as a massive irrigation and soil and water harvesting programme to increase the country's gross irrigated area.

CHALLENGES

A. FOOD PRICE INFLATION

It has been observed that over the course of the last few years, food and related products have witnessed a significant increase in their respective prices. The increase can majorly be attributed to the public health crisis which happened during the COVID-19 pandemic. However, that is not the sole and only reason why food price inflation has zoomed so much. According to data released by the FAO, food price inflation has been steadily rising since 2019 and has significantly increased in recent years due to multiple reasons. The FAO Food Price Index (FFPI) poses a grim picture of the future which exposes a serious threat to food security.

Multiple domestic and international organizations that have been monitoring these prices have unearthed an incoming global recession that begins from the Covid pandemic as the major cause of the recent rise in food prices. According to data released by the OECD, it was estimated that global we are witnessing about 8-9% of food inflation and that on average 12% of average income is spent on food for the middle class and 35% of income is spent on food in cases of poorer households. This has in turn produced bad outcomes when it comes to food security because of the direct correlation between the two. Food prices constitute a major factor when it comes to food security. Access to food entails not only having enough food to feed a family but also having the means to acquire that food. Ideally speaking, there is more than enough food to go around to feed everyone on the earth. People were unable to acquire the food they required due to income inequality and the disastrous impact of COVID-19 on economies worldwide.

While certain estimates suggest that prices will relatively cool down from here on out, total recovery to pre-pandemic levels is still a long way.

B. DOMESTIC INFLATION AND OTHER INDICATORS

At a time when the Indian economy is already not performing at its optimum level, the chances of recovery are also low, and rising inflation is running for many months will hit growth projections. This coupled with rising unemployment and declining income directly affects the food and nutritional security of the nation.

Inflation based on the wholesale pricing index (WPI) has now been in double digits for a year.

The index also reflects a rising tendency in food inflation. While oilseeds have been experiencing more than 20% inflation for over a year, cereals are also experiencing inflation, with wheat inflation exceeding 10% in the last five months. Maize and barley have seen 25% inflation and have remained extremely high for more than six months. It is evident that this is not a unique occurrence but a pattern of rising prices overall.

This will only get worse once we factor in the fact that the cost of cultivation of food, and the cost of storage is set to rise due to the rise in prices of raw materials used in agriculture. Additionally, the profits from the agricultural activity are set to see a drop which will negatively contribute to farmers' income. When farmers are generating a low income, the production capacity of India will get reduced and we will eventually witness some disruption in the demand and supply equilibrium.

C. CLIMATE CHANGE

Climate Change affects Food Security in many ways. Any change in temperature which plays a major role in the growth of crops directly impacts the quality and quantity of food. The ability of a nation to feed also depends directly on it. Food Security is also indirectly affected by climate change due to fatal events like floods, and droughts which manifold these outcomes of climate change, thus leading to a large amount of crop loss and making land unsuited for farming. Sectors that are climate-sensitive such as agriculture, forests, and natural resources like soil, and biodiversity is facing pressure as climate change leads to a rising in deterioration of resources which in turn results in decreased income, unfavorable impacts on health, and eroded livelihoods. Thus, Climate change affects not only the production of food due to the variability of the monsoon but it has a negative impact on access as well as its utilization.

Accessibility of food is highly affected as climate change has an adverse impact on the income of farmers. A country like India which serves as a home to marginalized farmers who depend on rain-fed food is affected. Agricultural laborers, fishers, and people dependent on forests also face problems with the accessibility of food. Since poor people spend a major portion of their earnings on food, thus livelihood loss, and asset damage because of extreme conditions and weather has an unfavorable impact on the food security of households. Not only people in rural areas are affected but urban food security is also emerging as an important matter because poor people migrate to urban areas for livelihood. Further, there is a decrease in the nutritional quantity of food such as proteins and minerals because of increased CO₂ levels. This leads to

problems of “hidden hunger”. It forms a vicious cycle as deficiency of nutrients leads to increased risk of diseases which further exacerbate the issue of undernutrition.

D. IMPACT OF LOCKDOWN ON FOOD SECURITY

Covid-induced lockdowns have been beneficial for curbing the outbreak and limiting the widespread effects. At the same time, the lockdown has also led to implicit and explicit socio-economic effects which negatively impacted the population. One of the major impacts which the lockdown had was on the food security and nutrition requirements of the households in India. Any kind of lockdown in a country like India will lead to a severe economic crisis, suggested a report by WHO and this became evident in the post-covid period.

The impact of lockdown on covid can be broadly divided into two categories: Explicit and Implicit impacts.

Explicit Impacts:

Lockdown directly leads to loss of income for daily wage laborers and the unemployment rate went very high, which makes even salaried laborers vulnerable. As income is a direct indicator of food affordability, the loss of income of primary earners in a family had very negatively affected the purchasing power. Nevertheless, the government schemes to an extent have been able to provide people with staple food grains, but even they lacked other essential resources.

Lockdowns led to schools closing down, which disrupted the mid-day meals program, through which the food security of a large number of children of school-going age was met. In many villages, a major incentive for students to go to school was the mid-day meals as they kept them away from hunger. Thus, when this incentive is not met, it can also lead to an increase in dropout rates, especially among girls. Adding to that, the dietary requirements of the girls attending the age of puberty were attained through various schemes implemented in schools, implemented as a part of mid-day meals, this was also blocked. The economic crisis resulting from lockdowns has pushed a larger population into hunger and malnutrition.

Implicit Impacts:

Lockdowns have implicitly led to hidden hunger among a variety of populations. It led to a higher population depending only on the staple grains provided by the PDS. Due to this, the dietary diversity had decreased vastly which caused acute malnutrition among all populations, but majorly among children, pregnant women, and the aged.

As the shops were closed down for a longer period and the hoarding led to increased prices, people resorted to coping mechanisms, which mostly kept them from meeting their essential dietary needs.

Thus, we can see that both the explicit and implicit effects of lockdown have negatively impacted the women and children more as their dietary requirements are more diverse and couldn't be directly met just by staple grains

Policy recommendation:

- Maternal education and employment strengthened to diversify income sources, the primary income should not be through a single member
- Government should address unemployment-related hunger and malnutrition through long term programs
- Poor households should be encouraged to be self-sufficient through kitchen gardening to be prepared for such a situation in future.

E. FOOD ADULTERATION

One of the basic requirements of any living organism is food. Food adulteration occurs when the quality of food is affected and negatively impacts the health of individuals. Adulterated food is dangerous because it may be toxic and can affect health and it could deprive nutrients essential for the proper growth and development of a human being. Food adulteration is one of the serious challenges of food insecurity in Indian society. Despite various measures and penalties and the enactment of various acts such as the Consumer Protection Act, which prohibits manufacturers to sell or distribute any adulterated food, the problem continues in India. Many pregnant women who consumed such adulterated food ended up with miscarriages because of poor fetus growth and in some extreme cases, the women died while delivering babies. The saddest part even infants' milk products and life-saving medicines are turning insecure for consumption.

The 2019-2020 FSSAI report alarmingly reported that 38% of food samples were adulterated

and that adulteration had doubled since 2012, and it has escalated up to 60% during the pandemic. It appears the surging prices of all items have led to the crisis of increased adulterated food, especially during the pandemic.

F. OVERPOPULATION

The growth in agricultural production has outpaced population increase. Increasing numbers of people often drive up demand for food, which typically results in additional use of arable land and water. Food systems are already exceeding boundaries in the usage of resources and are generating tremendous food loss and waste. Food systems are linked with inequalities, including the existence of hunger and food insecurity, and the struggle for a decent livelihood. There are interrelationships between population, food security, nutrition, and sustainable development and the policies and productivity should work effectively towards it. The current diets are resulting in premature mortality and are subject to both chronic and infectious diseases. The absence of adequate food production will not meet the community's needs for food and reproductive health. To ensure a healthy future for both people and the planet, the growing population must be fed in a healthy, equitable, and sustainable manner. The greatest risk to food quality posed by the rising population is declining food production standards as producers try to seek shortcuts for higher yields. This will lead to the degradation of food quality standards and damage the long-term production outlook (soil degradation).

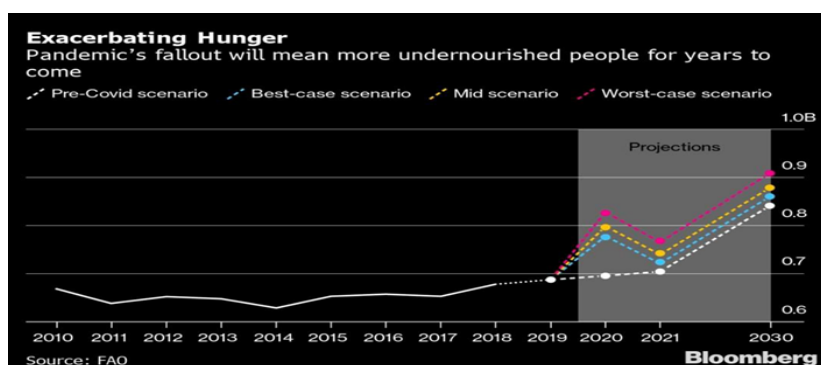
IMPACT OF COVID ON FOOD SECURITY AND NUTRITION

COVID-19 is a respiratory illness and there is no evidence that food itself is an aim of its transferral. Although, the virus, and measures to contain its increase, have had extreme implications for food security, nutrition, and food systems. Simultaneously, malnutrition including obesity increases vulnerability to COVID-19. First and ongoing unreliability surrounding the nature of the spread of COVID-19 led to the enactment of strict lockdown and physical distancing policies in numerous countries. These measures caused a serious fall in economic activity and disrupted supply chains, releasing new dynamics with cascading effects on food systems and people's food security and nutrition.

COVID-19 pandemic has proven to be a health and livelihood crisis – quickly turning into a hunger and malnutrition catastrophe. The pandemic has led to increasing global food insecurity, affecting vulnerable households in almost every country. It has worsened existing inequalities, pushing millions of people into the dangerous cycles of economic stagnation, livelihood loss, and exacerbating food insecurity. Food security is the absorption of food in the body or its utilization, which is dependent importantly on sanitation, drinking water, and other non-food factors including public health services. The lack of adequate clean water, in particular, has to come to the fore in both rural and urban slums in the context of Covid-19, where one of the key measures for stopping transmission related to frequent hand washing.

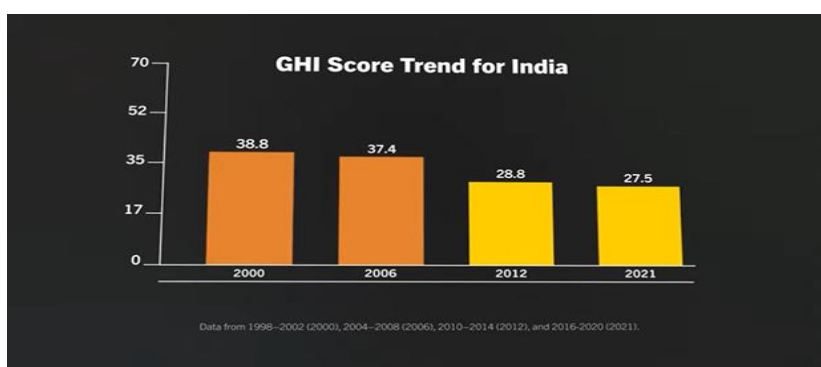
There is an estimate by the World Bank that 71 million people will be pushed into utmost poverty across the world as a result of the pandemic, the World Food Programme evaluate that an added 130 million people could fall into the category of “food insecure” over and above the 820 million analyzed as such by the 2019 State of Food Insecurity in the World Report. As the deadly second wave devastates India, individual states have imposed strict restrictions and lockdowns to restrain the spread of the virus. In the time of the first wave, the difficulty and misery of the migrant workers and other vulnerable communities were laid bare. But this time, the health crisis has overwhelmed the existing livelihood and hunger crisis which still looms large in most of the towns and villages.⁵

⁵ <https://www.worldbank.org/en/topic/agriculture/brief/food-security-update>



The COVID-19 pandemic is exacerbating hunger worldwide.
Image: Bloomberg/FAO

India ranks 101 out of 116 countries in Global Hunger Index 2021. According to GHI (2021), 15.3% of the population of India is undernourished, under the age of 5 12.9% of children are wasted and 34.7% of children are stunted. The COVID and resulting unemployment have made India's hunger crisis grim. The First Phase of the National Family Health Survey (2019-2020) has disclosed disturbing findings, with as many as 16 states revealing an increase in underweight and severely wasted children under the age of 5. The pandemic is becoming a nutrition crisis, due to long-suffering healthcare systems, disrupted patterns of food, and income loss, along with the disruption of programs like the Integrated Child Development Scheme (ICDS) and the mid-day meal. Around the world, no longer free meals were provided which for many children would have been their only nutritious meal. In the survey of mothers with young children 40.9% of mothers with children ages 12 and under-reported that since the pandemic started, "the children in their household were not eating sufficient because they just couldn't afford enough food."⁶



Covid-19 has interrupted the way of life and has further disrupted individuals, families, and society as a whole under the stress of health and economic burden. Past evidence suggests that

⁶ <https://www.globalhungerindex.org/india.html>.

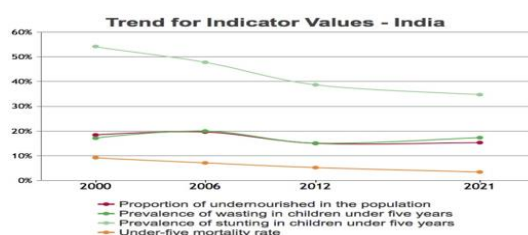
disease outbreak affects men and women differ in their day-to-day activities. Specific attention must be paid to the situation of women, who are over-represented in low-paid jobs. It is estimated that maternal undernutrition accounts for 20% of childhood stunting. The poor nutrient intake integrated with low education and socio-economic condition of women adversely affects behavioral practices concerning appropriate self-care affects body mass index (BMI) of pregnant women and the growth of fetal and contributes to undernutrition (stunting) in children. Women are neglected when it comes to eating, often eating less and only in the end after the family has consumed the meal. There are gender norms are a major to the unequal distribution and consumption of food by women in households. Covid has further worsened women's nutrition security and food consumption.

If we can ensure food availability, food access, and food absorption then we have an impartially robust system of food and nutrition security. While the public distribution system

may be able to meet calorie needs, the inability to harvest, transport, and market perishable fruits and vegetables at remunerative prices during the pandemic has not just deprived farmers of income and livelihood but also consumers too are deprived of micronutrients in their diet.

IMPACT ON WOMEN AND CHILDREN - FOOD INSECURITY AND MALNUTRITION

Women and adolescent girls are more likely to face malnutrition pertaining to their requirement for increased nutritional needs associated with menstruation, pregnancy, and lactation.⁷ In India, it can be estimated that women are exposed to higher chances of malnutrition than men due to various factors such as **poverty, food unavailability, lack of awareness, food taboos, and gender bias**. As per a recent report by UNICEF, “Malnutrition in women is rooted in poor care practices at the individual, household, community, and societal levels”. The COVID-19 pandemic followed by lockdown had an adverse negative impact on household food insecurity (HFI) due to a reduction in the food supply as well as a dramatic loss of household income ultimately increasing the greater risk of malnutrition in women.⁸ The health of women and girls has major implications not just on themselves but also on all family members, often known as the **Intergenerational cycle of malnutrition**.⁹ According to M S Swaminathan, “the first step towards Hunger Free India is to banish the problems of maternal and fetal under-nutrition.” It is estimated that more than two million people suffer from hidden hunger globally, with nearly half in India.¹⁰ Global Hunger Index of 2021 suggests that even after there is insufficient improvement in all trend indicators.



The following are the impact of food insecurity on women and children's health

1. As per National Family Health Survey-5 (2019-21), Anaemia prevalence in children of 6-59 months is 67%, in adolescent girls 15-19 yrs is 59%, women of reproductive age are 57%, pregnant women 52%, and non-pregnant women is 57%.¹¹

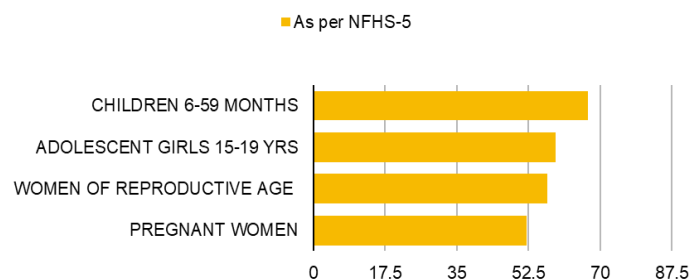
⁷ <https://www.news18.com/news/opinion/why-women-face-more-food-insecurity-than-men-5133025.html>.

⁸ https://www.aliveandthrive.org/sites/default/files/covid_endline_brief_bangladesh.india_v1_4aug.pdf.

⁹ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7793016/>

¹⁰ <https://www.thestatesman.com/opinion/hidden-hunger-2-1503045728.html>

¹¹ <https://anemiamuktbharat.info>



Anemia is a condition of having a lower than the required number of red blood cells or quantity of hemoglobin which occurs due to the non-consumption of sufficient iron, folic acid, or vitamin B12. This often has minor and major health implications such as feeling tired, cold, dizzy, irritable, shortness of breath, but not limited to a heavy period, blood disorders, complications in pregnancy, inherited disorders, and infectious diseases.¹² Anemia causes 20% of maternal deaths in India and was the associate cause of 50% of maternal deaths, IndiaSpend reported in October 2016.

An undernourished woman is under increased gravity to give birth to a lower birth weight baby due to inadequate consumption of nutrition before conception and during the first trimester is a major contributor to fetal stunting. Pregnant women may also be more exposed to risks such as preterm delivery, low-birth-weight infants, and decreased iron stores for the baby, which may lead to impaired development.¹³ They also face major implications such as child feeding practices due to pandemic measuring affecting HFI. Anaemia in children is very often associated with poor cognitive and motor development in relevance to the severity of stunting and Iron Deficiency Anaemia also impacts the economic development of the country.

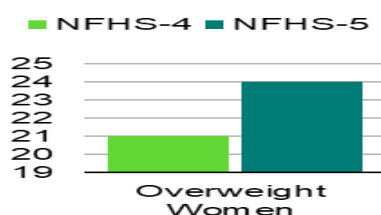
2) Prevalence of Anaemia among Women & Children in India (NFHS-4 vs. NFHS-5) In comparison to NFHS-4, NFHS-5 indicates that anaemia prevalence in Assam has increased the most from 35.7% in NFHS-4 to 68.4% in NFHS-5, an increase of 32.7 percentage points. Chhattisgarh and Mizoram have also indicated an increase of more than 25 percentage points.

3) In comparison to NFHS-4, NFHS-5 indicates that obesity prevalence in women has increased from 21% to 24%. Also, more than a third of women in Kerala, A&N Islands, Andhra Pradesh, Goa, Sikkim, Manipur, Delhi, Tamil Nadu, Puducherry, Punjab, Chandigarh, and Lakshadweep (34-46 %) are overweight. Obese weight is more susceptible fatal illnesses to

¹² <https://indianexpress.com/article/explained/more-than-half-the-indian-kids-women-are-anaemic-heres-why-7125590/>

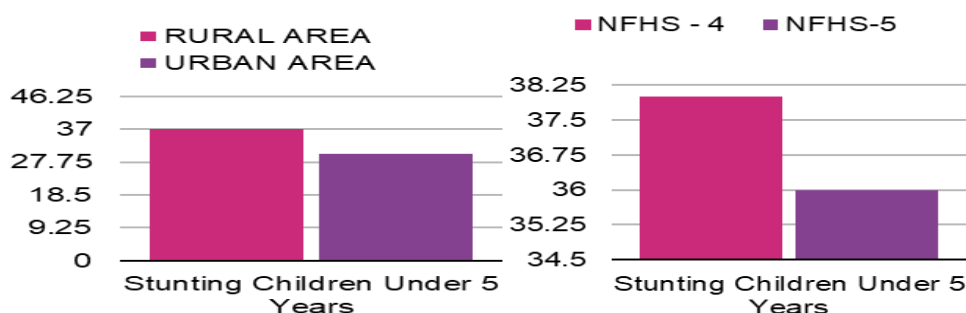
¹³ https://www.who.int/data/gho/data/themes/topics/anaemia_in_women_and_children

such as diabetes, cardiovascular disease, cancer, Cushing syndrome, Osteoarthritis, hormonal changes causing PCOS, and many others.¹⁴



4) The level of stunting among children under 5 years has marginally declined from 38 to 36 percent for India in the last four years indicating higher among children in rural areas (37%) than urban areas (30%) in NFHS-5. Variation in stunting ranges from the lowest in Puducherry (20%) to and highest in Meghalaya (47%).

Malnutrition has adverse effects on self-care behaviors among pregnant women affecting body mass index (BMI) and fetal growth as well as undernutrition (stunting) in children. Maternal nutrition causes 20% of childhood stunting which is often exacerbated by factors such as follows low socioeconomic position, inadequate education, and poor education among women.¹⁵ Under-nourished Children experience consistent weight loss, do not reach their optimum height, more prone to greater risk of infections during their early years.



5) Impact on Education Attainment

Children with malnourishment experience lower IQs impacting, lower cognitive test scores, delayed enrolment, higher absenteeism, and more class repetition compared with non-stunted children.¹⁶ Due to Vitamin A deficiency, their immunity is likely to reduce increasing the

¹⁴ <https://pubmed.ncbi.nlm.nih.gov/12737715/>

¹⁵ <https://www.orfonline.org/research/why-women-face-more-food-insecurity-than-men/>

¹⁶ https://www.business-standard.com/article/current-affairs/50-indian-women-are-anaemic-why-it-persists-after-70-yrs-of-freedom-117112100219_1.html

gravity of infections and resulting in increased school absenteeism. Overall, leaving a drastic negative impact on the productivity of children.

Malnutrition accounts for 1,935 fatalities per day or 68% of all under-five deaths in India¹. The COVID-19 pandemic's onset, the consequent lockdown, and the resulting restrictions are likely to make individuals who are malnourished, especially pregnant women, new mothers, and kids, feel even worse. According to estimates, moderate/severe wasting in children under the age of five will increase by 14% and severe wasting by 22% when the Gross National Income (GNI) per capita declines. In conjunction with service delays, COVID-19 may result in a number of maternal and infant fatalities.

Despite the lack of complete data on nutrition outcomes following COVID-19, there are some signs that the epidemic in India has had a significant influence on food security among the underprivileged and disadvantaged groups of society. India makes up the largest proportion of the worldwide burden of childhood stunting in terms of absolute numbers. Therefore, the facts about the pandemic's worldwide effects have important ramifications for our kids. In addition, India's nutrition outcomes had long been subpar, even prior to the Covid-19 issue.

Drèze and Somanchi (2021) discovered that the national lockdown was connected to a terrible food crisis, with a particularly sharp fall in the intake of healthy products. They did this by analyzing the findings of 76 household surveys collected by CSE-APU. Additionally, even after the lockdown was lifted in 2020, there was little improvement in employment, income, or nutrition levels by the end of that year compared to pre-pandemic levels. Over two-thirds of respondents to Hunger Watch I, which was conducted in October and November 2020, reported a decrease in nutritional quantity and degradation in nutritional quality compared to their pre-pandemic diet. Nearly 30% of the respondents to the study reported skipping meals the night before the survey.

During the second wave of the pandemic, Covid-19 infections were more severe and cases began to appear in rural regions. Once more, the effects were felt on work and means of subsistence, and many people had catastrophic health costs. The state of food security following the second wave has not yet been widely reported. According to Hunger Watch II, which surveyed 7000 people in 14 states, there is still ongoing suffering and food insecurity. In comparison to pre-pandemic levels, more than 40% of the households surveyed indicated a drop in nutritional quantity and quality. In the month before the study, 67 percent of the homes

reported being unable to buy cooking gas, and 45 percent had some outstanding debt.

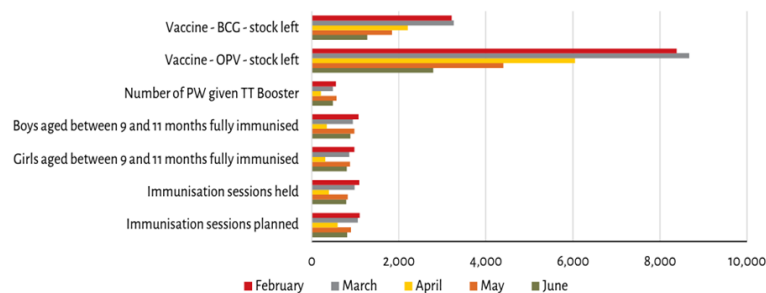
Nutrient-rich food consumption was subpar. Eggs, meat items, or fruits were consumed less than twice or three times per month by more than half of the homes. More than a fifth of the households ingested green leafy vegetables and pulses no more than twice or three times per month. The study also included the Global Food Insecurity Experience Scale (GFIES), which was used to determine that 25% of sample households had experienced severe food insecurity and that around 80% of households had experienced some type of food insecurity in the month before the survey.

During the epidemic, food security is a significant challenge. According to a poll of 1,694 homes conducted in Bihar and Uttar Pradesh in May 2020, 32–48% of households had a food scarcity in the month prior, and 49–59% of households had to cut back on their food intake during the lockdown. Given the varied effects of the food shortage on men and women, this is especially worrying. Women in the study reported food shortages and reduced consumption at a higher rate than males did.

A second study of 12 states indicated that many households were cutting back on the number of meals per day and the number of food items in each meal³². According to reports, rural Indians were already consuming less and less nutrient-dense foods³³. Food provision was prioritized by several governments, both generally and specifically for ICDS recipients.

The Public Distribution System (PDS) has been activated to deliver food supplies as part of the Atmanirbhar Bharat Programme³⁴. Furthermore, Take Home Rations (THR) are offered to both mothers and children in all significant states³⁵. States have used a variety of THR delivery methods. For instance, Bihar was providing cash in lieu of THR at the time this brief was written, and Odisha was sending THR and dry food to people's doorsteps. Hot prepared lunches were not offered to youngsters (ages 3-6) due to the fact that the majority of AWCs were closed.

The lockdown had a substantial impact on immunization services, potentially undoing the gains made in the eradication of diseases that can be prevented by vaccination. Delays can have long-lasting impacts with some vaccinations, which cannot be postponed. Simple to avoidable infections can be lethal, and a single missed case can increase the likelihood of the disease



spreading in the future.

Fig.1 - Immunisation Sessions and Number of Women and Children Immunised (in Thousands)

In August 2020, at the height of the first Covid-19 wave in India, when there were between 50,000 and 70,000 new cases per day, Natalie Bau et al. conducted a timely re-survey of 32% of the sample via phone. The survey was based on a sample of 4,799 households that were interviewed in person in Fall 2019¹. This arrangement allowed surveyors, who had previously built relationships with these homes, to ask about the mental health of women in addition to providing measures of the baseline characteristics prior to the pandemic.

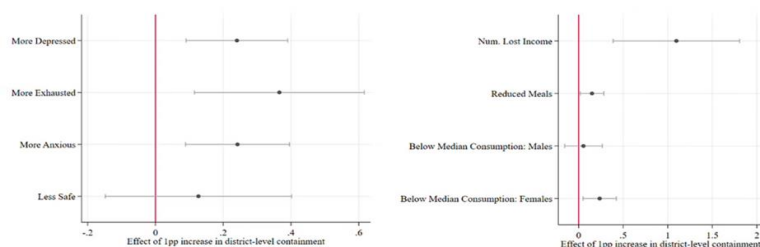


Fig. 2 - Containment and female

well-being, socioeconomic and nutritional Outcomes

All four measures of women's well-being are linked to stricter containment zones being worse (Figure 2, left panel). It has been found that going from no containment to average levels of containment is linked to an increase in the likelihood that emotions of despair have gotten worse by 13 percentage points (pp) and an increase in the likelihood that feelings of fatigue have gotten worse by 20 pp. Additionally, confinement is linked to a considerable rise in despair, an increase in anxiety, and a decreased sense of safety.

The association between containment and socioeconomic and nutritional results is depicted in Figure 2's right panel. Lower-income and more food insecurity were observed in households in higher confinement areas. From no containment to average levels of containment, there is a 0.6-percentage-point rise in the number of lower-income household members and an 8-percentage-point increase in the risk that daily meals would be halved. We find that moving

from no containment to average levels of containment is associated with a 13 pp increase in the share of food categories for which a woman's consumption is below her district's pre-pandemic median. We do this by comparing current consumption to pre-pandemic levels of consumption from the National Family Health Survey (NFHS 4).

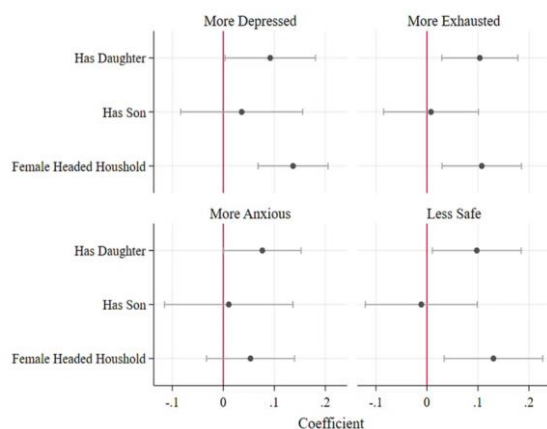


Fig. 3 - Household structure and female well-being

Figure 3 shows how the pre-existing vulnerability of women affects the link between the Covid-19 shock and the outcomes of interest. According to recent data from high-income environments, working moms with young children are most impacted by lockdowns, maybe as a result of the absence of suitable childcare. If a woman has a daughter, she is 9 pp more likely to experience worsening depression symptoms and 10 pp more likely to experience worsening fatigue symptoms. Additionally, having a daughter is linked to a rise in worry and a decrease in sentiments of security. This is in line with India's strong desire for sons, where having a daughter may make a lady less respected in the household.

Between December 2019 (in-person) and August 2020, Shivani Kachwaha et al. performed a longitudinal quantitative survey with 569 mothers of children under two years old (by phone). We used the Household Food Insecurity Access Scale to quantify HFI and Wilcoxon matched-pairs signed-rank tests to look at how HFI changed throughout the pandemic. Then, based on the HFI status, we evaluated the child's feeding habits and coping mechanisms using multivariable regression models.

HFI was found to have substantially increased from 21% to 80% before and during COVID-19, with 62% of households shifting from food security to insecurity and 17% staying food insecure. When compared to children from food secure families, children from initially and

persistently food insecure homes were less likely to eat a varied diet (adjusted odds ratio, AOR: 0.56, P = 0.03 and AOR: 0.45, P = 0.04, respectively). Reduce another necessary non-food spending (AOR: 1.7-2.2), borrow money to buy food (AOR: 3.6-4.3), sell jewelry (AOR: 3.0-5.0), spend savings or sell other assets (AOR: 2.0), and sell other assets (AOR: 2.0) were all more common coping strategies used by households experiencing food insecurity (P 0.05).

Following the nationwide lockdown, a poll of 12 states indicated that 73% of rural and 83% of urban households were eating less than they had previously (Azim Premji University, 2020). Child Rights and You (CRY) conducted an assessment, and one-third of the respondents stated that, in their perspective, the lockdown had significantly affected their child's eating routine (CRY, 2020). • Women and girls are particularly impacted because discrepancies in intra-household food distribution may widen due to a lack of food security (Salcedo-La Vina et al, 2020).

The pandemic's financial hardship has increased the poor's reliance on the Public Distribution System (PDS). However, the computerization and Aadhaar-enabled service, which caused manipulation by ration dealers, technology hiccups, and other concerns, had already presented the PDS with a number of exclusionary challenges (Economic and Political Weekly, 2020).

According to a Dvara Research poll, barely 1% of respondents had access to PDS services despite state governments having made them available to those without ration cards. Only 49% of households received food grains from the PDS; 38% were not enrolled, 11% did not try to collect, and 2% tried to collect but were unable to get the benefits either the access point was out of stock or there were technical difficulties (Dvara,2020).

India's supply of food grains is at an all-time high. In September, the Food Corporation of India (FCI) had a total buffer food stock of 411 LT (PIB, 2020c). However, many people lacked access to food.

RECOMMENDATIONS

The pandemic has certainly derailed us from the SDGs as we know. But it has given us an opportunity to build back better.

1. Expansion of food basket: The Public distribution system should be strengthened and the food basket can be enlarged to include millets, pulses. This may certainly help in addressing the issue of zero hunger.
2. Job Creation: Attention need to be given to the horticulture sector on a priority basis. Women farmers are at the forefront of horticulture and special attention needs to be given to both their technical and economic empowerment. One of the way of doing this is by promoting food processing industries.
3. Livelihood Security: A livelihood security for small and marginal farmer from rural households, women within them, can be ensured by strengthening the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA).
4. Role of self help groups: Platforms like Self-Help Groups can be used in rural regions to raise awareness and prepare meals with fortified commodities. Innovation by states in the utilisation of flexi funding under the POSHAN Abhiyan includes the fortification of milk in Kerala with Vitamin A and Vitamin D, fish supplies, and mushroom cultivation in Bihar.
5. Digitise operations: It is possible to draw lessons from the Mo Chhatua programme in Odisha, which uses a smartphone application to digitise operations and control the distribution of Take-Home Rations to beneficiaries.
6. Non-Discriminatory Practices: Adopt measures to eradicate any kind of discriminatory practices, especially with respect to gender, in order to achieve adequate levels of nutrition within the household.
7. Change in Eating Practices: Bearing in mind the cultural values of dietary and eating habits in different cultures, establish methods for promoting food safety, positive nutritional intake including fair distribution of food within communities and households with special emphasis on the needs and rights of both girls and boys, as well as pregnant women and lactating mothers, in all cultures.

8. Develop and/or strengthen mapping and monitoring mechanisms in order to better coordinate actions by different stakeholders and promote accountability.
9. Requirement of Public Institutions: Identify the roles and responsibilities of the relevant public institutions at all levels in order to ensure transparency, accountability, and effective coordination and, if necessary, establish, reform or improve the organization and structure of these public institutions.
10. Requirement of law: Consider the integration of the right to food into national legislation, such as the constitution, a framework law, or a sectoral law, thus setting a long-term binding standard for government and stakeholders.
11. Adopting agricultural practices that are sustainable: One of the main issues of Indian agriculture is that it has low productivity. In order to meet the increasing demand for food, increased productivity in every portion of agriculture is required. So, there is a need for reorientation of farm practices to lay out finer climate strength. Increase in public investment for development and dispersal of varieties of crop that are forbearing of variations in temperature.

Also, there should be better handling of water resources. Alternatives like water harvesting and better storage are necessary. With more focus on the northwestern part of India, the framework of irrigation should be enhanced. Subsidy on electricity should be altered by the public sector in order to pull out water for purposes of irrigation. In rural areas, there should be the restoration of water bodies, and good infrastructure design for water resources is required.

CONCLUSION

States, international and regional organizations, and all other appropriate stakeholders are recommended, to strengthen the institutional capacity of developing countries to implement effective policies that enable small-scale food producers to access technologies, inputs, capital goods, credit, and markets. Encourage secure and equitable access to, and sustainable use of, natural resources, including land, water, and biodiversity, for women and men without distinction. Work to increase public investment and encourage private investment in country-developed plans for rural infrastructure and support services, including – but not limited to – roads, storage, irrigation, communication, energy, education, technical support, and health. Improve extension services to support the dissemination of information and knowledge, ensuring that the needs of women farmers are fully recognized and met. If necessary, take measures to maintain, adapt or strengthen dietary diversity and healthy eating habits and food preparation, as well as feeding patterns, including breastfeeding, while ensuring that changes in availability and access to food supply do not negatively affect dietary composition and intake. Adopt measures to eradicate any kind of discriminatory practices, especially with respect to gender, in order to achieve adequate levels of nutrition within the household. Recognize that food is a vital part of an individual's culture, and they are encouraged to take into account individuals' practices, customs and traditions on matters related to food; Bearing in mind the cultural values of dietary and eating habits in different cultures, establish methods for promoting food safety, positive nutritional intake including fair distribution of food within communities and households with special emphasis on the needs and rights of both girls and boys, as well as pregnant women and lactating mothers, in all cultures. Develop and/or strengthen mapping and monitoring mechanisms in order to better coordinate actions by different stakeholders and promote accountability.

Measures including increased awareness, better dietary and nutritional choices, education, and IFA supplementation during pregnancy and breastfeeding are needed to hasten the reduction of anaemia. Platforms like Self-Help Groups can be used in rural regions to raise awareness and prepare meals with fortified commodities. Innovation by states in the utilization of flexible funding under the POSHAN Abhiyan includes the fortification of milk in Kerala with Vitamin A and Vitamin D, fish supplies, and mushroom cultivation in Bihar. It is possible to draw lessons from the Mo Chhatua programme in Odisha, which uses a smartphone application to digitize operations and control the distribution of Take-Home Rations to beneficiaries.

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