Zero hunger: A myth in India

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ABSTRACT:

The authors have adopted quantitative, qualitative and analytical research methods. The research paper explains the issues and challenges of providing food security to every sector of the society and the measures to curb hunger. While doing so, how to improve the nutrition of the food. The authors try to answer a few questions through their paper. The questions posed are, if poverty leads to hunger. Why are people still starving though the godowns are full or overflowing. And how to stop food waste or preserve food for future generations. How can nutrition deficiencies be reduced? Goal 2 of Sustainable Development Goals 2030 tries to "end hunger, achieve food security and improve nutrition and promote sustainable agriculture". The authors try to suggest or recommend certain solutions or policies which can be followed to achieve the SDG Goal 2.

Firstly the authors talk about the issue of poverty. Whether it leads to hunger. In that case, how can hunger be curbed? Secondly, the authors talk about the issue of food waste. The causes of food waste would be excess food production in marriages, climate change, and no proper storage. Thirdly the authors try to establish that there is no proper nutritious food provided to the women. Almost 1/3rd population of women of reproductive age globally suffer from anaemia in part due to nutrition deficiencies. Organic food grains are more nutritious, have antibodies and have no artificial additives. Hence might be a suggestive shift from normal food grains. Lastly the authors try to persuade an issue of overflowing godowns and as to why people are still starving. That is because the families depend on informal income or uncertain incomes and have no assured access to adequate and nutritious food. The measures to achieve food security is to increase the production rate, increase the literacy rate, tackle climate change, adopt improved technology, nutrition management and many more.

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1. <u>INTRODUCTION:</u>

The second goal under the Sustainable Development Goals 2030 framework is to "End hunger, achieve food security and improved nutrition and promote sustainable agriculture". To realize this goal many aspects have to be understood. The different aspects are poverty, agriculture, environment, economy, population and many more. And every aspect is interconnected. India has adopted and is implementing certain policies and schemes that give effect to Goal 2 of SDG 2030.

India's hunger situation is a serious cause for concern that needs the attention of policymakers. According to a 2015 World Bank report, malnutrition in India is two to seven times higher than the other countries. Same result was indicated in the 2021 report of Food and Agriculture Organisation (FAO) of the United Nations. it was said that with the current rate of decline, India will not be able to achieve the target of 'zero hunger by 2030' given by United Nations.

Hunger can be defined in many ways. According to FAO, "While many people may not be "hungry" in the sense that they are suffering physical discomfort caused by a severe lack of dietry energy, they may still be food insecure.

Zero hunger means elimination of all forms of malnutrition. Building sustainable food systems.

Right to food is secured under the Indian Constitution under Article 21 as a extended fundamental right. Also, Article 47 provides for food security and increase in the level of nutrition and standard of living. These provisions act as support in achieving the Goal 2.

2. SUSTAINABLE DEVELOPMENT GOALS:

2.1. HISTORY:

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all developed and developing countries in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand

with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

In order to make the 2030 Agenda a reality, broad ownership of the SDGs must translate into a strong commitment by all stakeholders to implement the global goals.³

2.2. GOAL 2:

As the world population continues to grow, much more effort and innovation will be urgently needed in order to sustainably increase agricultural production, improve the global supply chain, decrease food losses and waste, and ensure that all who are suffering from hunger and malnutrition have access to nutritious food. Many in the international community believe that it is possible to eradicate hunger within the next generation, and are working together to achieve this goal.

World leaders at the 2012 Conference on Sustainable Development (Rio+20) reaffirmed the right of everyone to have access to safe and nutritious food, consistent with the right to adequate food and the fundamental right of everyone to be free from hunger. The UN Secretary-General's Zero Hunger Challenge launched at Rio+20 called on governments, civil society, faith communities, the private sector, and research institutions to unite to end hunger and eliminate the worst forms of malnutrition.⁴

The Zero Hunger Challenge calls for:

- Zero stunted children under the age of two
- 100% access to adequate food all year round
- All food systems are sustainable
- 100% increase in smallholder productivity and income
- Zero loss or waste of food

The Sustainable Development Goal to "End hunger, achieve food security and improved nutrition and promote sustainable agriculture" (SDG2) recognizes the inter linkages among supporting sustainable agriculture, empowering small farmers, promoting gender equality, ending rural poverty, ensuring healthy lifestyles, tackling climate change, and other issues

³ https://sdgs.un.org/goals#history

⁴ https://sdgs.un.org/topics/food-security-and-nutrition-and-sustainable-agriculture

addressed within the set of 17 Sustainable Development Goals in the Post-2015 Development Agenda.

Beyond adequate calories intake, proper nutrition has other dimensions that deserve attention, including micronutrient availability and healthy diets. Inadequate micronutrient intake of mothers and infants can have long-term developmental impacts. Unhealthy diets and lifestyles are closely linked to the growing incidence of non-communicable diseases in both developed and developing countries.

Adequate nutrition during the critical 1,000 days from beginning of pregnancy through a child's second birthday merits a particular focus. The Scaling-Up Nutrition (SUN) Movement has made great progress since its creation five years ago in incorporating strategies that link nutrition to agriculture, clean water, sanitation, education, employment, social protection, health care and support for resilience.

Extreme poverty and hunger are predominantly rural, with smallholder farmers and their families making up a very significant proportion of the poor and hungry. Thus, eradicating poverty and hunger are integrally linked to boosting food production, agricultural productivity and rural incomes.⁵

Agriculture systems worldwide must become more productive and less wasteful. Sustainable agricultural practices and food systems, including both production and consumption, must be pursued from a holistic and integrated perspective.

Land, healthy soils, water and plant genetic resources are key inputs into food production, and their growing scarcity in many parts of the world makes it imperative to use and manage them sustainably. Boosting yields on existing agricultural lands, including restoration of degraded lands, through sustainable agricultural practices would also relieve pressure to clear forests for agricultural production. Wise management of scarce water through improved irrigation and storage technologies, combined with development of new drought-resistant crop varieties, can contribute to sustaining drylands productivity.

Halting and reversing land degradation will also be critical to meeting future food needs. The Rio+20 outcome document calls for achieving a land-degradation-neutral world in the context

⁵ ibid.

of sustainable development. Given the current extent of land degradation globally, the potential benefits from land restoration for food security and for mitigating climate change are enormous. However, there is also recognition that scientific understanding of the drivers of desertification, land degradation and drought is still evolving.

There are many elements of traditional farmer knowledge that, enriched by the latest scientific knowledge, can support productive food systems through sound and sustainable soil, land, water, nutrient and pest management, and the more extensive use of organic fertilizers.

An increase in integrated decision-making processes at national and regional levels are needed to achieve synergies and adequately address trade-offs among agriculture, water, energy, land and climate change.⁶

Given expected changes in temperatures, precipitation and pests associated with climate change, the global community is called upon to increase investment in research, development and demonstration of technologies to improve the sustainability of food systems everywhere. Building resilience of local food systems will be critical to averting large-scale future shortages and to ensuring food security and good nutrition for all.⁷

2.3. ADAPTATION & IMPLEMENTATIONS IN INDIA BY 2030:

India adopting the Goal 2 of Sustainable Development Goals ensure to:

- 1. End hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.
- 2. End all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.
- 3. Double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.

⁶ ibid.

⁷ https://sdgs.un.org/topics/food-security-and-nutrition-and-sustainable-agriculture

- 4. Ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.
- 5. Maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.
- 6. Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries.⁸
- 7. Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round.
- 8. Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility.⁹

3. SOLVING HUNGER ISSUES:

3.1. HISTORICAL PERSPECTIVE OF HOW HUNGER ISSUES WAS SOLVED IN INDIA:

Food security is a condition related to the ongoing availability of food. Concerns over food security have existed throughout history. The issue of Food Security has been identified as a major objective to be pursued by the Rome Declaration on World Food Security and the World Food Summit Plan of Action convened by the Food and Agricultural Organization (FAO) of the United Nations in 1996. The summit emphasized that "food security exists when all people at all times have physical and economic access to sufficient, safe and nutritious food to meet their daily needs and food preferences for an active and healthy life". During Indus Valley Civilization ancient man like other animals naturally saved the food

⁸ https://www.un.org/sustainabledevelopment/hunger/

⁹ ibid.

and fulfilled his hunger. But he involved not only saving the food but also he produced food grains and he developed agricultural production in a good manner.

There was evidence in Harappa and Mohenjo Daro for saving food grains and cleaning them. In that situation, around the town produced grains were used by farmers and remaining food grains were enough for giving to the people living in the town.¹⁰

India, with a vast population and uncertain harvest due to dependence on monsoon rains, has always been vulnerable to famines. Famines remained a part of India's history. Kautilya, the great statesman of ancient India, in his exhaustive chronicle on statecraft "Arthashastra" (321-301 BC), has advised the kings that during famine, the king should show favour to his people by providing them with seeds and provisions. He may either do such works as are usually resorted to in calamities; he may show favour by distributing either his own collection of provisions or the hoarded income of the rich among the people".

In Vedic era, the parting direction of Guru to his disciples was to go and grow food grains. The saying "Annam Parabhrama swaroopam" (grain is God) also illustrates the importance that was given to foodgrains. There was "a gradual evolution of an elaborate system of precautions against famines and for grappling with food problems. The Mauryan under whom, India received her first unity-both cultural and political-laid down elaborate instructions to the higher officers with respect to the measures for dealing with famine and other natural calamities". Villages were encouraged to have their own "grains reserves" and kings used to maintain their own emergency stocks. ¹¹

3.2. WHETHER POVERTY LEADS TO HUNGER:

India, with a population of over 1.3 billion, has seen tremendous growth in the past two decades. Gross Domestic Product has increased 4.5 times and per capita consumption has increased 3 times. Similarly, food grain production has increased almost 2 times. However, despite phenomenal industrial and economic growth and while India produces sufficient food to feed its population, it is unable to provide access to food to a large number of people, especially women and children. In recently published the Global Hunger Index (GHI), India has slid down, falling behind its South Asian neighbors to rank 101 out of 116 countries. The government has dismissed the report's on 'unscientific' methodology. Hunger is the condition

¹¹ ibid.

¹⁰ https://thewire.in/food/india-has-a-serious-hunger-problem-and-it-needs-urgent-policy-intervention

where both adults and children cannot access food constantly and have to decrease food intake, eat poor diets, and often go without any food. World hunger has many annoying factors and major causes, such as insufficient economic systems, misinformation, and climate changes.¹²

- The unbearable factor of poverty is the unaffordability of food.
- With the growth of population, the number of hungry people also increases at an uneven rate. There are a majority of people in developing countries such as Kenya, Uganda, and Ethiopia that are in desperate need of food for this reason.
- Climate change is also a major issue for world hunger.
- With the increased amount of rain in the country, it can possibly lead to serious floods
 which adversely affects the food production rate, availability to the impoverished and
 raises the costs.

Reports of the World Bank revealed that India is one of the poorest country. Some of the main issues associated with poverty in India are poor health services, insufficient education and training. Surprisingly people drop out their education and start working, this is still in practise in India; reasons being:

- Poor health services: It has been observed that People of India have less access to
 good health services as compared to other developed nations. The relationship
 between poverty and access to health care can be seen as part of a larger cycle, where
 poverty leads to ill health and ill health maintains poverty.
- Child malnutrition: The occurrence of under-nutrition in India is amongst the highest levels found in any country in the world and in spite of the development in food production, disease control, economic and social development; India is facing an acute problem of child malnutrition.
- Environmental degradation: It is also a major issue in increasing poverty. In the developing world, the poor communities depend on natural resources to satisfy their

¹² Utsav Kumar Singh, "India has a serious hunger problem and it needs urgent policy intervention", The Wire, Oct 30 2021.

basic needs. Therefore, the depletion and impurity of water sources directly impend the livelihoods of those who depend on them.¹³

3.3. FOOD WASTE MANAGEMENT:

Food waste management in India is becoming a critical problem due to the continuous increase of the Indian population. Indians' waste the maximum amount of food as much as the whole of the UK consumes – a data point which will not be most indicative of our love of surfeit cause is India's population. The food waste management in India is a horrendous issue and so is food waste management in India.

- On a sum 7.5 tons of food is being disposed of which is averagely 40%.
- Some 84.7% of the whole waste material recorded was thrown within the bin, whereas the remainder was either fed to the poor or some animals.
- A big portion of the waste material binned was still in edible condition.
- If the edible waste material generated is used, we tend to estimate that it might feed a minimum of 2000 individuals daily.
- Solely a pair of the ten shops surveyed were part waste aware, i.e., they separated the edible from the inedible, and ensured that food in condition reached empty stomachs. One among them disposed of their food at twelve noon, in order that it might be fed to the cows within the space. The other claimed to administer away all edible waste material to the native laborers and employees, for free, at the tip of the day.

Wasting food has an economic impact:

The better process will feed 11 percent of the world's population, several Indians. Meeting the food desires of a growing population in India (1.7 billion by 2050) whereas reducing food loss and waste poses a significant challenge. Wasting a ton of wheat and rice would mean wasting 1,500 and 3,500 liters of water that goes into their production.¹⁴

¹³ ibid

¹⁴ https://www.avristech.com/food-waste-management-in-india/

Wasting food has environmental Impact:

Food loss and waste are within the food and agriculture sector wherever diversifications to temperature change are necessary. Food loss and waste generate approximately eight percent of worldwide greenhouse gas emissions. A recent study predicts that emissions related to waste material may increase further. Hence, the message for World Food Day, discovered on Gregorian calendar month sixteen, was that "Climate is dynamic. Food and agriculture should too".

Solutions for food waste management in India:

- Recycle by composting
- Turn wasted food into animal feed
- Use waste food to provide products
- Source reduction and food deduction¹⁵

3.3.1. FOOD SECURITY:

POST HARVEST LOSS:

Postharvest loss can be defined as the degradation in both quantity and quality of a food production from harvest to consumption. Quality losses include those that affect the nutrient/caloric composition, the acceptability, and the edibility of a given product. These losses are generally more common in developed countries. Quantity losses refer to those that result in the loss of the amount of a product. Loss of quantity is more common in developing countries. A recent food and agriculture organisation report indicates that at global level, volumes of lost and wasted food in high income regions are higher in downstream phases of the food chain, but just the opposite in low-income regions where more food is lost and wasted in upstream phases.

The term "postharvest loss" - PHL refers to measurable quantitative and qualitative food loss in the postharvest system. This system comprises interconnected activities from the time of harvest through crop processing, marketing and food preparation, to the final decision by the consumer to eat or discard the food. Nowadays, interventions in PHL reduction are seen as an important component of the efforts of many agencies to reduce food insecurity. PHL is increasingly recognized as part of an integrated approach to realizing agriculture's full

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potential to meet the world's increasing food and energy needs. Therefore, reducing PHL along with making more effective uses of today's crops, improving productivity on existing farmland, and sustainably bringing additional acreage into production is critical to facing the challenge of feeding and increasing world population.¹⁶

3.4. ADEQUATE PRODUCTION & DISTRIBUTION OF NUTRITIOUS FOOD:

3.4.1. MILLET MISSION: SOWING SEEDS OF CHANGE:

Millets in Mission Mode. Launched in 2017, OMM is the first-of-its-kind agricultural initiative that encourages the cultivation of nutrition-rich millets in the eastern Indian state. The objective of the mission goes beyond bringing millets, the traditional food of Odisha's tribes, back on plates.

- On September 10, 2021 the Chhattisgarh state government formally launched the 'Millet Mission' with the aim of making the state a millet hub.
- Under this mission, the Indian Institute of Millet Research (IIMR), Hyderabad signed MoUs with 14 districts of the state.
- Under the mission, MoUs were signed between IIMR and Kanker, Kondagaon,
 Bastar, Dantewada, Bijapur, Sukma, Narayanpur, Rajnandgaon, Kawardha, Gaurela
 Pendra Marwahi, Balarampur, Koriya, Sarjapur and Jashpur districts of the state.
- Under the mission, farmers will get the right price for small grain crops, input support expertise of experts.
- IIMR will provide technical know-how, high quality seeds, assistance and training to the farmers in setting up seed banks. 17
- Millet Mission will increase the income of farmers in the forest area and tribal areas of the state and will also give a new identity to Chhattisgarh.

Why millets and sorghum?

Because they are smart foods- good for you, planet and farmer. Rich in calcium, iron, zinc, protein, fiber and with low-glycemic index, they are nutri cereals. They allow multiple farm-

¹⁶ https://www.actioncontrelafaim.org/wp-content/uploads/2018/01/technical paper phl .pdf

¹⁷ https://www.drishtiias.com/state-pcs-current-affairs/millet-mission-launched

revenue streams as they can be food, fodder, source of sugar production and even biofuels. They can be grown in high temperatures with less rainfall or water, in nutrient-poor and saline soils. They have a smaller environmental footprint. They can be eaten in many ways, including ways we are accustomed to.

For centuries, millets and sorghum were staples in India but are marginalized today. Their production has remained largely unchanged since 1960 while rice production tripled, wheat production increased 800% and maize rose by 500%. This can only be explained by the foodfarm loop. Unless consumers diversify staples by looking beyond rice and wheat, farmers have no incentive to diversify cereal production. Without the required consumer and farmer support, these crops received negligible investment compared to rice and wheat. 18

4. CONCLUSION:

After analysing the entire paper the authors come to the conclusion that it is very difficult to end or curb hunger. Hence Zero hunger is a myth in India. Reasons being many; be it the population growth, or the methods of cultivation, climate change, food security, adequate food production, adequate food distribution, proper food waste management and many more such reasons. According to the 2021 Sustainable Development Report, India has slipped from 117 to 120 ranking amongst 193 countries. And India is a diverse country, a very unique country so it would be difficult to adopt the policies and schemes that are being practised in other countries.

5. SUGGESTIONS:

- 1. There is a serious requirement for food waste to be taken into account. There is a requirement of proper awareness regarding the same as people starve without food.
- 2. There is a requirement of a new implementation. Organic food grains have to be a part of subsidised food grains. As they are more nutritious when compared to normal food grains. There is no artificial food addictives. They are eco-friendly and are beneficial for health.

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- 3. Organic farming should be adopted. It enhances food security, reduces soil erosion, improves resistance to diseases, improves nutrition.
- 4. Awareness regarding food subsidies has to be created as it should reach the actual and righteous beneficiaries.
- 5. Public Distribution System (PDS) should work more efficiently.
- 6. Government should handover the stocks on time to PDS outlets. And the outlets should stock up the grains which are not sufficient.