

## **Recent Advances in Agriculture : A Contemporary Analysis**

**Simrathjit Kaur Kaler**

*Department of Laws, Aryan Group of College, Rajpura,  
Punjabi University, Patiala*

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### **Abstract**

Punjab state after ushering the nation in Green Revolution witnessed a quantum jump in agricultural labourers suicide. Landlords embrace new technology which reduced the employment of labourers. This resulted to the immense starvation among agricultural labourers. Poverty, unemployment, wastage of food, unstable grain market, climate conditions and shortage of grains are some of the major factors which elevate starvation. Greenhouse gas emission and global economic factors deprive workmen from basic necessities of life, which increase suicidal tendency among respondents. Furthermore, footprints of the labourers imprint the consumer's expectations for rich quality of food grains. Thus, increasing problem of demand of high variety yield of seeds leads to shortage of grains and mushroom emphasis on export oriented agriculture.

### **Keywords**

Advances, agriculture, contemporary, analysis.

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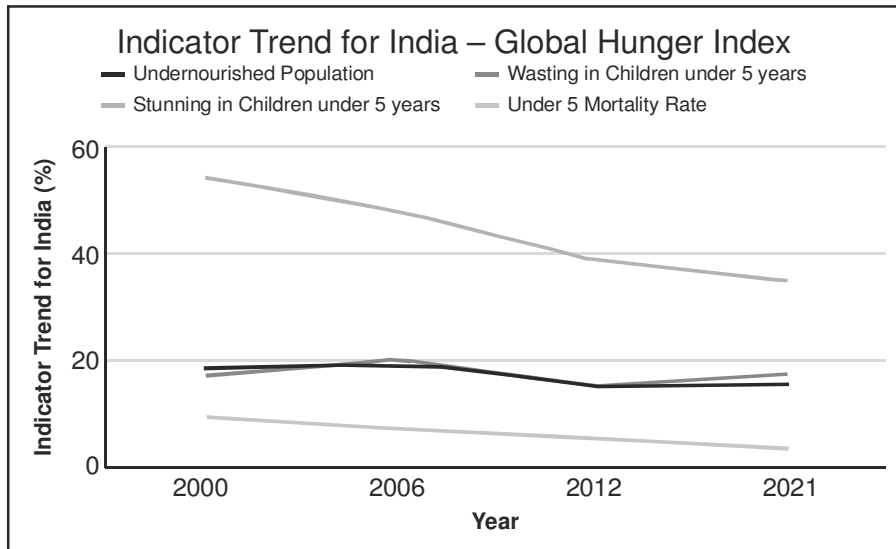
### **INTRODUCTION**

In recent era of digitalization, the Agriculture Technology has been trying to streamline a disorganized industry by emphasizing predictability and formulaic working methods. This business has prolonged its products to an extensive range of nations. It makes difference on local, regional, national and global basis. The major industry of the India and the backbone of the country's economy is agriculture. In the recent century, when the electronic

gadgets are smarter than the human beings and agriculturists are dependent on superintendent, it determines that whether farmers can plant their crop or not (The Times of Agriculture 2021). In the era of smart farming, which reduce waste, produce productivity and make full use of resources proves scientifically that appropriate use of this technology increase profits and enhances the quality of environment. Smart farming refers to the elevated and advanced production with existing farming practices. Government of India supports agriculture technologies to reduce their efforts and to improve productivity. Smart farming involves : Agricultural Robots (Zentron Labs, Tartan), Crop and soil monitoring (CropIn, Intello labs etc.), Predictive Analytics (Microsoft India-AI-Based Sowing Program, Ag Next, etc) and Supply Chain Efficiencies (Gobasco-The Intelligent Agri Supply Chain, Procol, etc). Technologies involved in smart farming are ICT and Agriculture, Soil and Water Sensors, Weather Tracking, Satellite Imaging, Pervasive Automation, Minichromosomal Technology, RFID Technology and Vertical Farming.

About fifty eight percent of the population of India inhabited upon agriculture as the main source of livelihood. However, in Indian scenario having vast geographical area, the innovative techniques and technologies developed at different research institutes. It is impossible to disseminate to the farming community. These are dispersed in difficult-to-reach places, besides having low ratio of public sector extension agents (Shah and Bhatt 2022).

Even before COVID-19 reduced incomes and disrupted supply chains, chronic and acute hunger was on peak due to various factors including conflict, socio-economic conditions, natural hazards, climate change and pests. The impact of the war in Ukraine adds risk to global food security, with food prices likely to remain high for the foreseeable future and expected to push millions of additional people into acute food insecurity (The World Bank 2022). According to Food and Agriculture Organization of the United Nations (FAO) estimate of the state of food security and nutrition in the World, 2020 report, 189.2 million people, that is 14% of the population, are undernourished in India (Yadav *et al.* 2022 ). In past two decades, India with a population over 1.3 billion has seen tremendous growth.



Source : Global Hunger Index [Latest 2022 Report]

The NITI Ayog has brought out SDG India Index and Dashboard 2019–20 which measure the progress achieved and distance to be covered by the states/UTs in their journey towards meeting the targets, using the SDG India Index, covering 16 out of 17 SDGs. The Rangarajan Committee (Committee R., 2014) established a new poverty threshold for rural areas at rupees 972 per month or rupees 32 per day. For urban areas, it was fixed at rupees 1407 per month or rupees 47 per day. Under this methodology, the population below the poverty line in 2011- 2012 was 363 million (Yadav *et al.* 2022).

## OBJECTIVE

To explore factors responsible for agrarian hunger despite of technological advances.

## AIM OF THE STUDY

The aim of the study is to analyze the insatiable situation of hunger inspite of advances in agriculture.

## NEED OF THE STUDY

There is an urgent need to give importance to new agricultural techniques and smart farming for the upliftment of farmers and to increase the economy of the country.

## RESEARCH METHODOLOGY

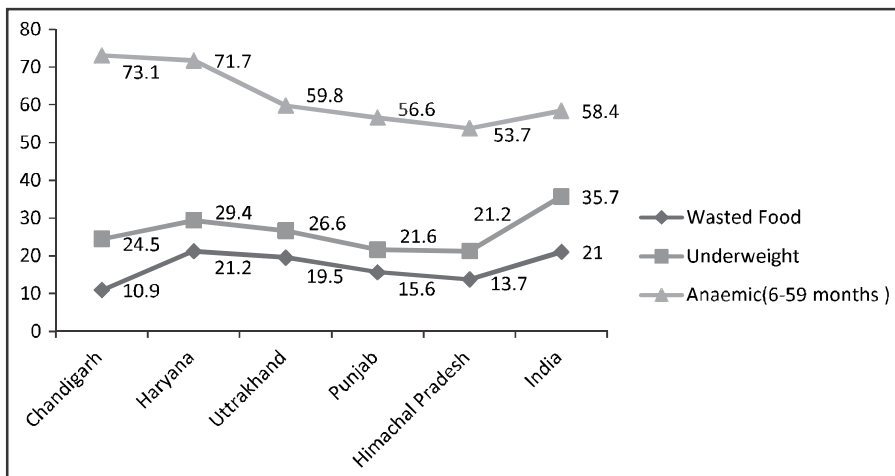
In present study magazines, journals and research papers were reviewed on elevating hunger in developing countries like India, Ethopia, Uganda etc despite of technological and biotechnical advances in Agriculture.

### Theoretical Framework

Globally, hunger and food insecurity has been one of the utmost priority issues ever since the World Food Summit (WFS) of 1996 had set a target of reducing the number of hungry and food insecure to half (842 million in the base period of 1990-92) by 2015 (Acharya 2009). Earlier, China numbered the maximum individuals who were starving with lack of food. It was amounted to 283 Million in 1992, which has reduced to 162 Million in the current year, 2021. Thus making India, as the country with most hunger struck Nation, the NDTV reports.

In India there are several reasons of hunger i.e. Shortage of Grains, unstable grain market, wastage of food etc. but poverty is the major agony that led the population deprive of food. There are majority of people in developing countries such as Kenya, Uganda, Ethiopia, India etc that are in desperate need of food. It is observed that with growing population, the number of hungry people also increases at an uneven rate. Tremendous poverty remains a distressing problem in the world's developing regions, regardless of the advances made in the 1990s. Progress in poverty reduction has been concerted in Asia.

### Nutrition Status of Indian Population



Source : Ministry of Health and Family Welfare. NFHS-4. 2015-16.

In India, STI-led Rainbow Revolution transformed the country from 'ship-to-mouth' status to the 'Right-to-Food Bill' situation, with formidable food-grain export and buffer stocking. It is the second largest agrarian economy in the world as stated by (Dr. R.B. Singh, Dr. R.S. Paroda and Dr. Malavika Dadlani). However, the Food and Agriculture Organisation report also included the fact in its report that, the Indian government is striving for the improvement of the poor people. "The current social policies give a big hope for the poor people to get enough food" the UN report stated.

A majority of the countries, as of the records, 72 of 129 countries have crossed the mark to decrease the food problems of the poor, with the help of FAO and its schemes. But still, smallholder and marginal farmers, accounting nearly 86.25 percent of Indian farmers. Seven percent of the cultivated land and over 50 percent of the total agricultural production are vital not only for India's agrarian economy (10th Agriculture Census 2015-16), but also for achieving alleviation of hunger and poverty (Dr. R.B. Singh *et al.* 2019).

However, In Indian Scenario having vast geographically area, the innovative techniques and technologies developed at different research institutes are impossible to disseminate farming community. This is dispersed in difficult-to-reach places, besides having low ratio of public sector extension agents as said by (Shah A. and Bhat H., 2022).

## CONCLUSION

The study concludes that inspite of technical advances in the agrarian society there is still prevalence of malnutrition in the nation. The changes are required on ground level in agriculture for the security and systems of food. Moreover, there is need to make investments, institutions and policies in several areas. Action should be taken on various fronts such as substandard policies, inappropriate monitoring and evaluation. Lack of political will as well as poor governance is also an important factor that should be taken into consideration. Furthermore, it is also concluded by the study that to eliminate hunger and poverty, it is necessary to use more technical applications, tools and techniques in agriculture sector.

## References

- Singh, B. R.; Paroda, S. R.; and Dadlani, M. (2019), Indian Agriculture Towards 2030 Pathways for Enhancing Farmers' Income, Nutritional Security and Sustainable

Food Systems : FAO. Retrieved from <https://www.fao.org/india/news/detail-events/ar/c/1369694/>

The World Bank (2022), Food Security Update, 1-23.

Times of Agriculture (2021), *Farm ERP Broadens Its Operations in the Changing Global AgTech Landscape*, 16 : 29-31.

Times of Agriculture (2022), Hungry In India : Food For All, 22 : 32-33.

Times of Agriculture (2022), Indian Agriculture in the Age of Information and Communication Technology, 22 : 44.