

The Study of Global Hunger Index (GHI) in Perspective of India

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ABSTRACT :- Achievement of sustainable development is the challenge for developing countries. Problem of hunger is among them. Hunger is not only lack of food but also food security and malnutrition. Global hunger index is used for the measurement of hunger. Undernourishment, child wasting, child stunting and child mortality these four indicators are used for calculation of GHI. GHI is calculated on a hundred point scale where Zero is the best score and hundred is the worst. GHI is divided on the basis of severity in five groups. In 2019 India's GHI score is 30.3 that means hunger level in India is 'serious'. Main causes of India's hunger problem is poverty waste of food, natural calamities, poor implementation of schemes, etc. to face the problem of hunger in India different schemes and program which is announced by central or state government are needed to implemented in proper way. In rural areas Gram-Panchayat & Co-operative institutes are helpful for these task. Participation of students prove effective.

Keywords :-

Global hunger index, GHI & India, Hunger problem in India.

INTRODUCTION :-

United Nations Brunahlant Report in 1987 defines sustainable development as "development which meets the need of the present without compromising the ability of function generation to meet their own need.

"Sustainable development is the pathway to the future we want for all, It offers a framework to generate economic growth achieve social justice, exercise, environmental stewardship and strengthen governance"- Ban Ki Moon.

To achieve the sustainable development United nation described 17 goals. These goals are No-Poverty, Zero hunger, good health and well-being, quality education, Gender equality, clean water and satisfaction, affordable and clean energy, decent work and economic growth, industry innovation and infrastructure, reduced inequalities, sustainable cities and communities, responsible consumption and production climate action, Life below water, Life and land, peace justice and strong institution, partnership for the goals.

These 17 goals are correlated to each other. In the present paper we discuss from India's point of view, the second goal Zero hunger.

Objectives :-

- 1) To understand the concept of GHI.
- 2) The study of Global Hunger Index (GHI) In Perspective of India

Research Methodology:-

Considering the objective of the present paper. The data is collected from secondary sources like books, articles, websites etc. for the present research paper descriptive method is adopted.

What is Hunger?

In common sense we can say need for food is called hunger. But in scientific manner hunger defines a short term physical discomfort as a result of chronic food shortage or in severe cases a life threatening lack of food (National Research Council, 2006).

Hunger aggregated to the global level reference to world hunger expressed in two terms of food first is insecurity and second is malnutrition. Firstly food insecurity reference to limited or unreliable access to foods that are safe and nutritionally adequate (National Research Council 2006). Global Hunger is focus on under nutrition has two type the first is most important lack of calories and protein or protein-en-energy malnutrition(PM) with the consultation of food human gets energy the energy contained in food is measure in calories. Protein is essential for human body functions, which include development and maintenance of muscle. Protein energy malnutrition is lethal form of malnutrition with the lack of essential nutrition for human growth leads to failure. Based on physical measurement, like weight, malnutrition can be divided into moderate acute malnutrition and severe acute malnutrition. A person having low weight is compare with his height, swollen feet, face or limbs theses are common symptoms. Stunting is being too short for a person s age stunted child has a normal body proportion but look younger than their actual age.

The second type of malnutrition's is micronutrients deficiency vitamins and minerals are micronutrients. Which are important for health. Worm infections, malaria and other infections are created lack of minerals like iron. A deficiency of vitamin can cause of night blindness and impaired growth. Deficiency of minerals like iodine is cause of impaired cognitive development in children.

Global Hunger Index :-

For measurement of hunger, Global Hunger Index (GHI) is used. 2019 Global Hunger index report is prepared jointly by Irish aid agency Concern Worldwide and German organization Welt Hunger Hilfe. In this hunger measurement index undernourishment, child wasting, child stunting and child mortality these four indicator values are included. For the calculation of GHI firstly four values are determined from available data for each country. This process is as per given below.

PUN: Proportion of the population that is undernourished (in %)

CWA: Prevalence of wasting in children under five years old (in %)

CST: Prevalence of stunting in children under five years old (in %)

CM: Proportion of children dying under five years old (in %)

After determination of this indicator values secondly standardization of each component is essential.

Standardize component indicators

Standardize PUN = $(PUN/80)*100$

Standardize CWA= $(CWA/30)*100$

Standardize CST= $(CST/70)*100$

Standardize CM= $(CM/35)*100$

The above four standardize score values are aggregated to calculate the GHI score for each country under nourishment and child mortality components are contributing 1/3 of GHI score while child wasting and child stunting are contributing 1/6 of the score.

Aggregate Component Indicators

$$\begin{aligned}
 & \frac{1}{3} * \text{standardize PUN} \\
 & + \frac{1}{6} * \text{standardize CWA} \\
 & + \frac{1}{6} * \text{standardize CST} \\
 & + \frac{1}{3} * \text{standardize CM} \\
 & \text{-----} \\
 & = \text{GHI Score}
 \end{aligned}$$

This calculation results in GHI scores on a 100 point scale, where '0' is best score and '100' is worst score. GHI is divided on the basis of severity in five groups as given below.

Low GHI	- 5 to 10 GHI score
Moderate GHI	- 10 to 20 GHI score
Serious GHI	- 20 to 35 GHI score
Alarming GHI	- 35 to 50 GHI score
Extremely Alarming GHI	- 50 to 55GHI score

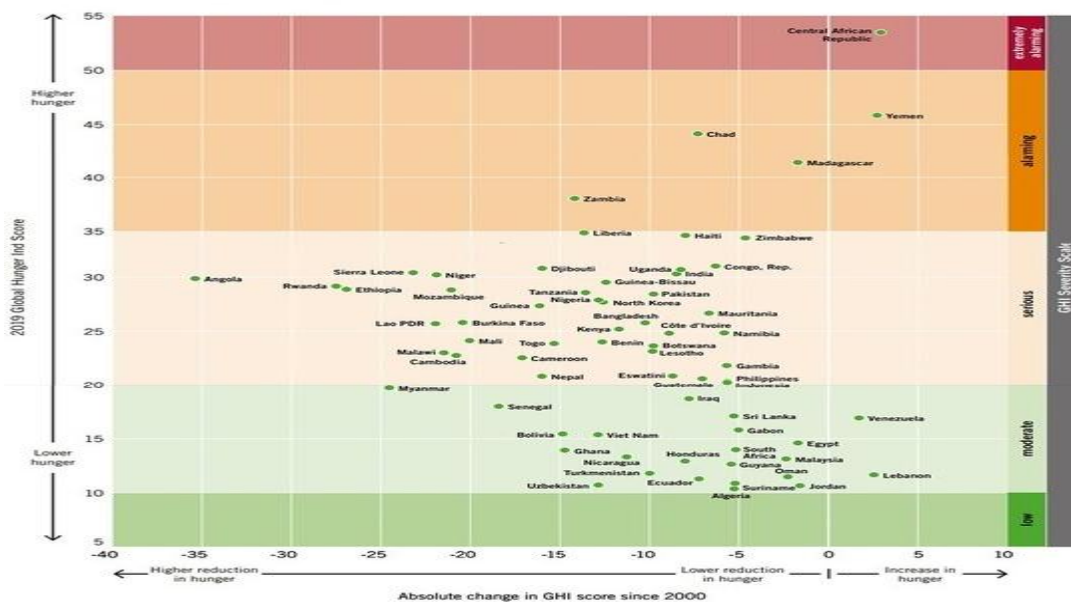


Figure No. 1 - Global Hunger Index since 2000 to 2019

Source: <https://www.globalhungerindex.org>

Hunger in India :-

India is a large country with a population over 1.3 billion. According to FAO (Food and Agriculture Organization) estimated report of "The state of food security and nutrition in world in 2019" shows that 194.4 million people (i.e.14.5 % of the population of India) in India are undernourished .51.4 % of total reproductive aged women between 15 to 49 years are anemic. 37.9 % of the children aged below five years in India are stunted. 28.8 % of children below five years of the age are underweight.

India and GHI

In the report jointly prepared by Irish agency Concern Worldwide and German organization Welt Hunger Hilfe. India is on the position of rank 102. This report termed the level of hunger in India "serious". That means Indian GHI score is between 20–35. The report estimated the GHI score of India since 2000 to 2019 as below.

Table No. 1 - Trend GHI Score - India:-

Year	2000	2005	2010	2019
GHI Score	38.8	38.9	32.0	30.3

Source: <https://www.globalhungerindex.org>

The above GHI score trends shows that India is going to moderate the position but with comparison to other developing countries India is behind them.

Table No. 2 - Four GHI indicators values for India is stated as below

Sr. No.	Indicators /Years	2000	2005	2010	2019
1	Undernourishment	18.2	22.2	17.5	14.5
2	Child Wasting	17.1	20.0	16.5	20.8
3	Child Stunting	54.2	47.8	42.0	37.9
4	Child mortality	9.2	7.5	5.8	3.9

Source; <https://www.globalhungerindex.org>

Causes of hunger in India:-

1. Poverty is the central cause of hunger and hunger is also cause of poverty. As per national level poverty line, Tendulkar committee measures 21.9 % poverty in India (2011).
2. India is going to produce more agro based product but at that time they forget sustainability in agriculture.
3. Change in climate is also cause of increase in hunger. Indian agriculture is based on monsoon. One side of the country is suffering from drought and at the same time other side of the country faces challenges in flood.

4. Our culture is also cause of hunger. In Indian society demographic factors like gender, caste, age, etc. are also cause of hunger.
5. Waste of food is major cause of hunger. In India waste of food is about 7 % of total annual food production. Almost 30 % of the fruits and vegetables is waste because of inadequate ware housing facilities and cold storages.
6. Poor implementation of the schemes and policies are also cause of hunger.

Policies in India to face the problem of hunger:-

The government of India is adopted several programs to fight the hunger related problem Antyodaya Anna Yojana, Midday Meal scheme, Mahatma Gandhi National Rural Employment Guarantee Act, Food Security Act, etc. On the 16 October 2017 India announces zero hunger programs in three districts of Uttar Pradesh (Gorakhpur), Odisha (Koraput), and Maharashtra (Thane). This program will be initiated by the Indian Council of Agriculture Research (ICAR) in association with the Indian Council of Medical Research (ICMR), the M. S. Swaminathan Research Foundation and Biotechnology Industry Research Assistance Council (BIRAC).

In 2017 NITI Aayog unveiled the National Nutrition Strategy to achieve 'Kuposhan Mukta Bharat' by 2022. Indian Prime Minister Narendra Modi approved the setting up of National Nutrition Mission (NNM) on 30 November 2017.

Conclusions

As a developing country India faces different types of problems. To achieve sustainable development India has a number of problems which are created by nature and the society or culture. So the present challenge of hunger is the major problem among them. Which has several causes as we mentioned earlier? Not only the announcement of the program or scheme is sufficient but also the implementation of the scheme is more important. And at the same time co-operation of citizens is most important. For that special programs in rural areas are implemented through Grampanchayat, cooperative institutions, and participation of students is most effective.

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