



## CRITICAL EVALUATION OF PROGRESS OF SUSTAINABLE DEVELOPMENT GOALS IN INDIA WITH SPECIAL REFERENCE TO SDG-2 AND SDG-3

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**Abstract:** *Food and Nutritional Security is a serious challenge for our country, which needs to be tackled with implementation of effective policies and programmes. Despite nation's vigorous efforts, the problem is still acute. India has dubious distinctions of having prevalence of (over 50%) of under nutrition (as judged by stunting, wasting and micro nutrient deficiencies- like anemia, Vitamin-A deficiency and others) in the world. Efforts made since attaining freedom have made only marginal impact on reducing malnutrition in our country. India is also committed to implement UN Sustainable Development Goals on or before year 2030. There are 17 SDGs under UNSDGs out of which present paper seeks to assess the achievements of only two SDGs, namely SDG-2 (Zero hunger and poverty) and SDG-3 (Health and Nutrition). The picture is still gloomy. No doubt, Indian government is making her sincere efforts to control these situations and trying to eliminate hunger and poverty, nutrition related issues. The FAO estimated that in India alone 191 million people were undernourished in 2014-16- representing 24% of total number of nourished people worldwide. For this reason, addressing food security represents enormous challenges for the India Government. India's share of the world's undernourished population exceeds its share of the world's population indicating that it houses a disproportionate number of the world's poor. Since the early 1990, the number of undernourished people in India has remained relatively stable with only reduction of 15 million in number of undernourished between 1990-92 to 2014-16. This relatively small change in number of undernourished is due to strong population growth among the poor. With more significant changes seen in the proportion of the population who are undernourished – falling from 24% in 1990-92 to 15% in 2014-16 (FAO-2017). The rate of improvement in nutritional status has not kept pace with India's significant gains in economic prosperity and agricultural productivity during recent decades despite gains in reducing poverty rate, India is saddled with high levels of malnutrition, anemia, stunting and wasting. According to NFHS-4, almost half of pregnant Indian women aged between 15 and 49 years are anemic, and more than one-third of women have a low body mass index. Among children younger than age five, 38.4 percent have low height for age and 21 per cent have low weight for age. The sustained efforts have to be made to achieve the targets set under SDG-2 and SDG-3. India's Goals set for 2030 is to end hunger and malnutrition by ensuring that quality food is accessible to all to meet their nutritional needs of healthy life. Ending hunger and malnutrition demands resilient food production system and sustainable agricultural practices. Additionally, it requires ensuring equitable access to nutritious food for all, improving sanitation and hygiene and reducing vulnerability and shocks and disaster.*

*Key words – Food and Nutritional Security, Sustainable Development Goals (SDGs), Stunting, NFHS-4, Malnutrition, Obese, wasting, FAO, Breast feeding, Micronutrient deficiencies*

### INTRODUCTION

Ensuring food security ought to be an issue of good importance for a country like India, where more than one-third of the population is estimated to be absolutely poor and one-half of children are malnourished in one way or another. Malnutrition is a universal issue holding back development with unacceptable human consequences. Yet, the opportunity to end malnutrition has never been greater. The UN Decade of Action on Nutrition 2016-2025 and the Sustainable Development Goals (SDGs), this paper refers to SDG-2 and SDG-3

only) provide goal and national impetus to address malnutrition across the world remains unacceptably high and progress unacceptably low. Malnutrition is responsible for more ill health than other cause. Children under five years of age face multiple burdens: 150.8 million are stunted, 50.5 million are wasted and 38.3 million are overweight. Meanwhile 20 million babies are born of low birth weight each year. Over weight and obesity among adults are at record levels with 39.8% of adults overweight or obese, stretching from Africa to North America and increasing among adolescents. Women have a higher burden than men, when

in comes to certain forms of malnutrition- one third of all women are of reproductive age have anemia and women have a higher prevalence of obesity than men. Millions of women are still under weight .India is not an exception of it ,there is a chronic under nourishment in about half of the population , particularly among the vulnerable groups of children , women and elderly from lower half of the expenditure class. Economic access to food by about a fourth of population living below poverty line is problematic , despite impressive economic growth in the recent years. The level of food absorption is also low. About 44% of children under weight, around half of pregnant women are anemic and the majority of women do not have access to toilet facilities and safe drinking water.38.5 per cent of children under five years were stunted and under weight in India. Despite of decline in stunting , wasting and under weight rates of India's children during the last decade , all of these , indicators exceed levels observed in countries at similar income levels. It is a great challenge to India that after more than seventy years of independence , India still has dubious distinctions of having one of the highest prevalence of (over 50%) of under nutrition ( as judged by stunting , wasting and micronutrient deficiencies – like anemia, Vitamin-A deficiency and others), in the world. Efforts made since attaining freedom have made only marginal impact on reducing malnutrition in our country. And environmental related diseases like obesity, diabetes , hypertension ,CVD and cancers are also increasing .Individuals born with low birth weight due to intra-uterine malnutrition tend to be more susceptible to the above mentioned adult onset degenerative diseases. Malnutrition is seriously and adversely impacting the the country's development and health care expenditure.

#### **Objectives of the research paper :**

- i. Focus on concept of Food and Nutrition Security
- ii. To assess the progress of Sustainable Development Goals (SDGs) in terms of SDG-2(Zero hunger) and SDG-3(Health and Nutrition)
- iii. It also attempts to evaluate status of Food and Nutrition Security in India.

#### **Research Methodology**

For coming to concrete results , secondary data obtained from various sources(Government Reports, Economic Survey, published research papers, institutional websites and other e-resources, news paper clippings and NFHS India) have been widely used in this papers.

#### **Meaning and concept:**

Food Security is a very wide term, which is ,multidimensional in nature .According to the FAO definition agreed at the 1996 World Food Summit and expanded upon at 2001 summit-Food Security exists when a people at all times, have a physical ,social and economic access to sufficient ,safe and nutritional food their dietary needs to meet preferences for an active and healthy life. Essentially, food security , can be described as a phenomenon relating to individuals .It is nutritional status of the individual house hold members that is ultimately focus , and the risk of adequate status not being achieved or being undermined .The latter risk describes the vulnerability of individuals in this context. As the definition reviewed above imply, vulnerability may occur both as chronic and transitory phenomenon .Useful working definitions are described below:

**Food Security:** exists when all people , at all times, has physical , social and economic access to sufficient food. Safe and nutritious food, which meets their dietary needs and food preference for an active and healthy life .Household food security is the application of this concept to the family level, with individuals within households as focus of concern.

**Food Insecurity:** exists when people do not have adequate physical , social and economic access to foods as defined above.

**Sub-nutrition:** includes poor absorption and/or poor biological use of nutrients consumed.

**Transitory Food Insecurity:** According to World Bank in 1986- “The major sources of transitory food insecurity are year to year variation in international food prices, foreign exchange earnings, domestic food production and household incomes. These are often related .Temporary sharp reduction in population ability to produce or

purchase food and other essential undermine long term development and cause loss of human capital, which it takes years to recover.

An FAO report, August,2008, defines food security in terms of the following four key aspects

**Food Availability:** -sufficient availability of food with the nation through domestic production, net imports (commercial or food aid) and carry-over stocks.

**Food Access:-** Individual capability of purchase food and to be able to produce food through safety net or availability.

**Food Utilization:-**Consumption of food by the household in a proper form. It also take into account food preparation, storage and utilization, food safety, nutritional safety and dietary balance .

**Food Vulnerability:-** Vulnerability of the population to food insecurity to physiological, economic, social or political reasons

### **SDGs and Food Security and Nutrition:**

SDGs(Sustainable Development Goals) were adopted by 193 countries at the UN Sustainable Development Summit in September ,2015.The SDGs, which came into effect from 1st January ,2016, have 2030 as their deadline for achieving targets. These SDG target across 17 verticals represent the most ambitious global developmental aspirations. They address key aspects of universal wellbeing across different socio-economic, cultural, geographical divisions as also interconnections among these social multiple dimensions of improving human welfare.

These 17 SDGs are being mentioned below:

1. SDG-1-No poverty (End in all its forms every where)
2. SDG-2 -Zero Hunger(End hunger, achieve food security and improved nutrition and promote sustainable agriculture)
3. SDG-3- Good Health and Well being(Ensure healthy lives and promote well being for all at all ages)
4. SDG-4-Quality Education (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all)
5. SDG-5-Gender Equality(Achieve gender equality and empower all Women and girls)
6. SDG-6-Clean Water and Sanitation Ensure availability and sustainable management of water and sanitation for all)
7. SDG-7-Affordable and Clean Energy(Ensure access to affordable , reliable ,sustainable and modern energy for all)
8. SDG-8-Decent Work and Economic Growth(Promote sustained , inclusive and sustainable economic growth ,full and productive employment and decent work for all)
9. SDG-9-Industry,Innovation and Infrastructure (Build resilient infrastructure , promote inclusive and sustainable industrialization and foster innovation)
10. SDG-10-Reduces Inequality(Reduce inequality within and among countries)
11. SDG-11-Sustainable Cities and Communities(Make cities and human settlements , inclusive, safe, resilient and sustainable)
12. SDG-12-Sustainable Consumption and Production (Ensure sustainable consumption and production patterns)
13. SDG-13-Climate Action (Take urgent action to combat climate change and it's impacts)
14. SDG-14-Life below Water (Conserve and sustainably use the oceans, seas and marine resources for sustainable development.
15. SDG-15-Life and Land (Protect, restore and promote sustainable use of terrestrial ecosystem , sustainably manage forests, combat desertification and halt and reverse land degradation and halt biodiversity loss.)
16. SDG-16-Peace,Justice and Strong Institutions(Promote peaceful and inclusive societies for sustainable development , provide access to justice for all and build effective, accountable and inclusive institutions at all levels)

17. SDG-17-Partnership for the Goals (Strengthen the means of implementation and revitalize the global partnership for sustainable development.)

Out of above 17 Goals , this paper deals with only SDG-2 and SDG-3 :

SDG-2- Zero Hunger(End hunger, achieve food security and improved nutrition and promote sustainable agriculture), under this goal, following targets have to be achieved by 2030 :

2.1-By 2030, 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.

2.2-By 2030, end all forms of malnutrition ,including achieving by 2030, the internationally agreed targets on stunting and wasting in children under five years and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.

2.3-By 2030,double the agricultural productivity and the incomes of small scale food producers, particularly women, indigenous people, 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.

2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase agricultural productivity and production , that help to maintain ecosystems that strengthen capacity for adoption to climate change , extreme weather , drought, flooding and other disasters and that progressively improve land and soil quality.

2.5 By 2020, maintain genetic diversity of seeds, cultivated plants, framed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at national ,regional and international levels and ensure access fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge , as internationally agreed norms.

2.a Increase investment , including through enhanced international cooperation ,in rural infrastructure, agricultural research and extension services ,technology development and plant and livestock gene banks to enhance agricultural productive capacities in developing countries in particular least developed countries.

2.b Correct and prevent trade restrictions and distortions in world agricultural markets ,including by the parallel elimination of all forms of agricultural export subsidies and all exports subsidies and all export measures with equivalent effect , in accordance with mandate of Doha Round.

2.c Adopt measures to ensure the proper functioning of food commodities ,markets and their derivatives , and facilitate timely access to market information , including on food reserves , in order to help limit food price volatility.

The SDG-3 Good health and Well being (Ensure Healthy lives and promote well being for all at all ages , under this Goal , following have to be achieved by 2030, :

By 2030,reduce global maternal mortality ratio to less than 70 per 1,00,000 live births.

By 2030, end preventable deaths of newborns and children under 5 years of age , with all countries aiming to reduce neo natal mortality to at least as low as 12 per 1000 live births under under 5 mortality to at least as low as 25 per 1000 live births.

By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis ,water borne diseases and other communicable diseases.

By 2030, reduce by one third premature mortality from non-communicable diseases through preventive and treatment and promote mental health and well being.

Strengthen the preventive and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

By 2020,halve the number of global deaths and injuries from road traffic accidents.

By 2030, ensure universal access sexual and reproductive health care services including for family planning, information and education and the integration Of reproductive health into national strategies and programmes.

Achieve universal health coverage , including financial risk protection , access to quality essential health care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

By 2030, substantially reduce the number of deaths and illness from hazardous chemicals and air, water and soil pollution and contamination.

3.a Strengthen the implementation of the World Health Organization Frame work Convention on Tobacco Control in all countries, as appropriate .

3.b Support the research and development of vaccine and medicines for the communicable and non-communicable diseases that primarily affect developing countries , provide access to affordable essential medicines and vaccines , in accordance with Doha Declaration on TRIPS Agreement and Public Health , which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade related Aspects of Intellectual property rights regarding flexibilities to protect public health, and , in particular, provide access to medicines to all.

3.c Substantially increase health financing and the recruitment , development , training and retain of the health workforce in developing countries, essentially in the least developed countries and small island developing states.

3.d Strengthen the capacity of all countries, in particularly developing countries for early warning , risk reducing and management of national and global health risks.

### **Overview of Food Security in India –**

India is the world's second most populous country, home to 18% of the world

Population in 2015(World Bank,2017).As a developing country , it also contains

A significant portion of the poor and undernourished. The FAO estimated that in India alone 191 million people were undernourished in 2014-16- representing 24% of total number of nourished people world wide.For this reason, addressing food security represents an enormous challenges for the India Government. India's share of the world's undernourished population exceeds it's share of the world's population indicating that it houses a disproportionate number of the world's poor. Since the early 1990,the number of undernourished people in India has remained relatively stable with only reduction of 15 million in number of undernourished between 1990-92 to 2014-16.This relatively small change in number of undernourished is due to strong population growth among the poor . with more significant changes seen in the proportion of the population who are undernourished – falling from 24% in 1990-92 to 15% in 2014-16(FAO-2017).Other indicators show mixed in the food security, being mentioned below:-

Rates of Stunting: -(being short for a child's age relative to population and demographic benchmarks)in children under age 5 year.

Malnutrition: India has both significant number of people that are undernourished and a significant number , and who are overweight and obese.

Micronutrient deficiencies : are high with , for example , 53% of women aged 15-49 and 22.7% of men aged 15-49 being anemic in 2015-16(International Institute of Population science ,2017).Due to iodine deficiency , dry and wet beriberi and Pellagra were the major public health problems in pre-independent India. Sustained dietary changes resulted in the elimination of beriberi and pellagra. There has not been any decline in the prevalence of of anemia due to iron and acid deficiency, while decline in Vitamin-A deficiency and iodine disorders has been very slow. Diet surveys have shown that intake of Vitamin-A is significantly lower than the recommended dietary allowance in young children, adolescent girls and pregnant women. In these vulnerable sub-groups, multiple nutritional problems coexists including inadequate intake of both energy as well as micronutrient other than Vitamin-A. According to FAO's latest food security report, micronutrient and the Vitamin-A deficiency were the prime-determinants to child health and nutrition in India.

It is reported that nearly 57% of pre-school children suffered from Vitamin-A deficiency, a significant higher level as compared to even Sub-saharan Africa. The infant mortality rate in India (for infants under one year) was as 56 in 2005. NFHS - 3 report that 19 percent of India's children were wasted, 38 per cent stunted and 46 per cent were

Under weight, figures that are disturbing and far from satisfactory.

In this connection, NFHS-4, report is an important document, which reveals that

#### **I. Nutritional Status of Children:**

Thirty eight per cent of children under age five year(s) are stunted (short for their age), 21 per cent are wasted (thin for their height), 36 per cent are under weight (light for their height) and 2 per cent are over weight (heavy for their height). Children born to mothers with no schooling and children in the lowest in weight quintile are most likely to be undernourished.

#### **II. Initial breast feeding:**

About two fifths (42%) of children born in the last 5 years were breastfeed within one hour of birth, as recommended. Timely intimation of breast feeding is particularly low for women with no schooling, for home deliveries and for births deliveries by dai.

#### **III. Exclusive breast feeding:**

Fifty five per cent of children under age six months, are exclusively breastfed.

#### **IV. Anemia among children**

Fifty eight per cent of children age 6-59 months have anemia (hemoglobin levels below 11.00g/dl, an improvement from the NFHS-3 ESTIMATED OF 70 per cent.

#### **V. Micronutrient intake**

Sixty per cent of age 6-59 months were given Vitamin-A supplements in the six months preceding the survey. Forty four percent of children age 6-23 months consumed foods in rich in Vitamin-A in the day or night before the interview and 18 percent consumed iron rich foods.

#### **VI. Nutritional Status of Adults:**

Twenty three per cent of women and 20 per cent of men age 15-49 are thin, Almost the same percentage are overweight or obese (21% of women and 19% of men.

#### **VII. Anemia among Adults:**

Fifty three per cent of women and 23 per cent of men age 15-49 have Anemia.

#### **Conclusion and Suggestions:**

Food availability is a necessary condition of food security. India is more or less self-sufficient in cereals, but deficit in pulses and oil seeds. Due to changes in consumption patterns, demand for fruits, vegetable, dairy, meat, poultry and fishery products has been increasing in our country. Food security is determined by the availability of food, the access to food and absorption (or nutrition) of food in the system. These three conditionality's for food security are closely inter related and thus availability and access to food can increase absorption or nutritional levels among the households. The rate of improvement in nutritional status has not kept pace with India's significant gains in economic prosperity and agricultural productivity during recent decades. Stunting rates are likely to decline with economic progress but economic growth cannot by it-self, reduce under nutrition and may contribute to overweight and obesity. India's under nutrition problem is a serious threat to child development. Accelerating action at the state level is also essential to change the cause of the future for India's children. Despite gains in reducing poverty rate, India is saddled with high levels of malnutrition, anemia, stunting and wasting. According NFHS-4, almost half of pregnant Indian women aged between 15 and 49 years are anemic, and more than one-thirds of women have a low body mass index. Among children younger than age five, 38.4 percent have low height for age and 21 per cent have low weight for age. Food security and nutrition pose a challenge in India because of a number of factors, such as inadequate access to food, structural inequalities (gender, caste, social groups), lack of water and sanitation, micronutrient deficiencies and illiteracy. National aspirations for economic growth cannot be achieved without a healthy and productive population. Economic and social

advancements can neither be secure nor sustainable unless sufficient investments are made to protect and promote the health and wellbeing for all, at all ages. Thus, maintaining good health is important for individuals to lead a better life and is critical for a nation's development. While sustained efforts have to be made to achieve the targets set under SDIG-2 and SDG-3. India's Goals set for 2030 is to end hunger and malnutrition by ensuring that quality food is accessible to all to meet their nutritional needs of healthy life. Ending hunger and malnutrition demands resilient food production system and sustainable agricultural practices. Additionally, it requires ensuring equitable access to nutritious food for all, improving sanitation and hygiene and reducing vulnerability and to shocks and disasters.

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