

Stunting and Marginalisation and Lack of Resiliency

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Abstract Malnutrition across the world is a global issue but in the developing countries it is catastrophic. Poverty affects nutrition and nutrition affects poverty, while income poverty is important to nutrition it is not strongly correlated, it is here we begin this interdisciplinary dialogue on a growing phenomenon in Asia called stunting. Stunting or chronic under nutrition, resulting in growth retardation is indicated by height for- age. Nearly 40 percent of the children in SAARC countries are engulfed in poor conditions for growth and development. Clinical etiology suggests that lack of nutrition, presence of infection and lack of mother – infant interaction insufficient food supply both in quantity and quality and recurrence of infectious diseases results in stunting or chronic under nutrition. Stunting, as a manifestation of deprivation in early childhood, is a common problem among young children. We suggest that poverty and lack of resources may predispose a child to maladjustment in the grown-up society, lacking in resiliency. This paper examines the relationship between poverty, marginalization and health in the context of stunting, under weight and wasting among children and malnutrition among women and adolescent girls lacking in resilience.

Keywords Food Security, Morbidity, Nutritional Security, Poverty, Stunting, Wasting, Resiliency

Introduction

India ranks poorly in the Human Development Index at a low 136 among 187 countries based on a measure assessing progress in life expectancy, access to knowledge and a decent standard of living or gross national income per capita (United Nations, HDI, 2013). HDI Report 2013 also places India at the near-bottom of countries which have reached 'medium development' The Multidimensional Poverty Index (MPI) indicates that 53.7 per cent of the population continue to live in multidimensional poverty, while an additional 16.4 per cent were vulnerable to multiple deprivations (Madhavi, 2013).

Income poverty is an understanding of poverty that is solely based on levels of monetary income. It is used by both

the World Bank and the UN. People living on less than US\$1 per day are living in extreme poverty, and people who earn less than US\$2 a day are in moderate poverty (UNDP, 2000). While income poverty is based on only one indicator, human poverty encompasses the multiplicity of dimensions associated with poverty. It includes deprivation on a material level, e.g. lack of proper diet, clothing, shelter, and work. It also includes social deprivation, such as denial of employment, participation in social institutions, and education (Krieger, Nancy 2002). The UN utilizes the human poverty framework as well as income poverty. The UN's Economic and Social Council (ECOSOC) has described human poverty as:

“Fundamentally, poverty is a denial of choices and opportunities, a violation of human dignity. It means lack of basic capacity to participate effectively in society. It means not having enough to feed and cloth a family, not having a school or clinic to go to, not having the land on which to grow one's food or a job to earn one's living, not having access to credit. It means insecurity, powerlessness and exclusion of individuals, households and communities. It means susceptibility to violence, and it often implies living on marginal or fragile environments, without access to clean water or sanitation” (ECOSOC, 1998).

Adoption of the Millennium Development Goals (MDGs) of United Nations, 2001, by the Asian and the Pacific governments did help in reducing income poverty from 55 per cent in the early 1990s to 24 per cent by the late 2000s. The region comprises two-thirds of the world's poor due to continuation of considerable gaps in the state of human development and increasing inequalities. “Asia and the Pacific face a daunting unfinished development agenda when the MDGs expire in 2015” according to Asian Development Bank (ADB, 2013). The report highlights that economic growth or reduction in poverty does not automatically ensure a positive link with progress on human development, especially reducing infant deaths and improving maternal health. At a global level, the new framework for nutrition action is represented by the Scaling Up Nutrition (SUN) movement, with its priority on the 1,000 days window from a

child's conception to two years of age. Almost no poor mothers and young children among the 2 billion affected by "hidden hunger" have access to affordable and nutritious products suited to the needs of growing young children during the first 1,000 days period in which nutritional status defines lifelong outcomes for individuals. Inappropriate infant feeding practices, for example non-exclusive breastfeeding of infants 0-6 months, or introduction of complementary foods of low nutritional value (low in micronutrients and good quality protein and energy), contribute to anaemia, reduced cognitive development, growth faltering and heightened susceptibility to common infectious diseases, resulting in a rapid decline of nutritional status of such children with stunting, developmental delays, increased risk of illness and death. The Lancet states that maternal and child under-nutrition is an underlying cause of more than one-third of child deaths and 11 percent of the total global disease burden. In developing countries, more than 3.5 million children younger than five die each year as a result of under-nutrition (Black et al., 2008). Studies have shown on the linkages between poverty, type of livelihood, food security and nutritional status. Food shortages are reported among households with incomes above the poverty threshold and therefore income does not always guarantee adequate food on the table. It is also stated that income is a poor indicator of food security (Balatibat, 2004). Furthermore, food security does not directly translate into nutrition security and adequate nutritional status, partly because the latter is not only determined by food intake but also by health and care variables as explained through the UNICEF conceptual framework.

Indian Scenario

Despite economic progress, India continues to have high incidence of malnutrition and stunting among children (ADB, 2013) and has a greater share of the world's poorest now than it did thirty years ago. India which was home to one fifth of the world's poorest people 30 years ago, today has one-third - 400 million surviving on 82 pence per day or less (World Bank, 2013). Though the incidence of poverty has declined over the years, the absolute number of poor is still very high in some regions of the sub-continent (IHDR, India, 2011). The Eleventh Five Year Plan noted that 'the rate of decline in poverty has not accelerated along with the growth in GDP, and the incidence of poverty among certain marginalized groups, for example the STs, has hardly declined at all' (para 1.4 p.1). According to the India Human Development Report- 2011, the incidence of poverty varied across occupations, income as well as communities. High incidence of poverty is noticed among agricultural labourers and casual labourers. Similar trends persist among Scheduled Castes (SCs) and Scheduled Tribes (STs) across social groups like Muslims where the severity of poverty was higher among SCs and STs in India. These social groups were 'asset less'

and worse off in terms of employment and they have much higher proportion of consumption expenditure being spent on food items (IHDR, 2011).

Poor nutritional status is caused by:

- Insufficient access to affordable and nutritious food throughout the year
- Lack of good care for vulnerable groups the mothers and young children
- Inadequate access to health, sanitation and clean water

These causes are exacerbated by the political and cultural climate with regard to status to women. Poverty in the form of material deprivation, lack of access to potable water and nutrition, quality medical care can account for the tragically foreshortened lives of women in India as poverty affects her health and is passed on through pregnancy as maternal and child health are intimately linked (Marmot, 2005, Spencer, 2000, Howard et al., 2001). Many development programs have been implemented by governments of developing nations to attain food security as a means to protect people against malnutrition. The effectiveness of government efforts to strengthen household food and nutrition security requires proper targeting. It is important to identify the food insecure households and vulnerable individuals, where they are and why they have not been able to improve their situations. If we really want to understand why households are food insecure and children are malnourished, we have to start thinking in terms of households and individuals (Balatibat, 2004). Our focus in this paper is to bring an understanding of the processes that maintain food and nutrition insecurity of households and the inequalities that occur regarding the vulnerability to food and nutrition insecurity and its impacts. India has 43 per cent of under-five children that are underweight during the period 2000-7. Undernourished children under-five years constitute 48 per cent in India according to the Nutrition Report (NFHS-3, 2009). The number of underweight children aged below 5 declined modestly over two decades, from 35 per cent in the early 1990s to 25 per cent by the late 2000s in the Asian region. Inset below gives a context to the nutritional status of children in both the BRIC and SAARC countries adapted from the State of the World's Children Report, UNICEF 2009.

It is important at the outset to review the rights and inequalities in the Indian context. Freedom from hunger or access to adequate food and nutrition is perceived as a Constitutional right in India and includes extended interpretation of 'the right to life' as in the Article 21 of the Indian Constitution. Such rights corroborate with the shared vision in common with the Millennium Declaration highlights that are guided by the values of freedom, dignity, solidarity, tolerance and equity among people and nations (FIAN, 2007, Parr, Fukuda, Kumar, 2003). The MDGs stress eradication of social determinants that deprive citizens and social groups of the right to redevelopment. The MDGs are standards set for the "progressive realization" of economic

and social rights. Hunger, malnutrition, and severe forms of material deprivation, affect large number of children and women resulting in infant mortality and maternal mortality among other impacts to their health and their quality of life. The importance of the issue could be understood by the fact that, out of the eight MDGs, four goals relate to poverty and health issues namely, child health, maternal health, combating HIV/AIDS and eradicating poverty and hunger. These MDGs are fine tuned with Indian development policies and programmes like the National Population Policy 2000 (NPP-2000), National Health Policy 2002 (NHP- 2002), National Aids Prevention and Control Policy 2004, and the Tenth Five Year Plan.

The persistence of hunger in a world of plenty is the most profound moral contradiction of our age. While the world produces enough food to feed everyone with a minimally adequate diet but guaranteeing the right to this food and freeing the world from hunger continues to be an unrealized dream (Pinstrup-Andersen et al., 1995). The right to food is the right to have regular, permanent and unrestricted access, either directly or by means of financial purchases, to quantitatively and qualitatively adequate and sufficient food corresponding to the cultural traditions of the people to which the consumer belongs, and which ensure a physical and mental, individual and collective, fulfilling and dignified life free of fear (OHCHR, 1999). The right to food necessitates that every Indian as a member of a community has physical and economic access at all times to adequate food or means for its procurement and when natural calamities strike that states have a core obligation to take the necessary action to mitigate and alleviate hunger. Therefore this right is not expected to be interpreted in a narrow or restrictive sense which equates it with a minimum package of calories, proteins and other specific nutrients without

arresting conditions that result in increasing levels or perpetuate hunger, food insecurity, and malnutrition. Addressing the problems of hunger, food insecurity, and malnutrition has far-reaching implications for enhancing individual capabilities. Hunger as 'a condition, in which people lack the basic food intake to provide them with the energy and nutrients for fully productive lives' (Hunger Task Force, 2003) is a violation of the right to food. Over time, the combination of low birth weight and high rates of infection due to malnutrition can result in the stunted growth of children. The most extreme manifestation of continued hunger and malnutrition is mortality. Hunger has three major dimensions viz., (a) chronic or endemic hunger, (b) latent hunger, and (c) transient hunger (IHDR, 2011, p.121). Hunger Index of India (HII) is alarming although it declined from 31.7 in 1990 to 24.1 by 2010. The HII reveals that achieving the first MDG —the eradication of extreme poverty and hunger is far from reality in the near future with very slow reduction in hunger. Half the world's hungry people live in India: there are more children going without food here than in all of sub-Saharan Africa. In India systemic problems rooted in discrimination result in high mortality rates, particularly during childhood and in their reproductive years. A context of pervasive and continuing poverty will seriously affect women's own nutrition and health status as well as their capability of performing their culturally bound reproductive roles as mothers and providers of food and care. Women are vulnerable in terms of health in India which is one the few countries where the typical female advantage in life expectancy at birth is not seen. Consequences of this precarious situation of women in India reflect in pregnancy outcome in terms of premature births, low birth weight babies and also increase the health risk for mothers (Jejeebhoy et al., 1995).

Table 1. Nutritional Status of Children: SAARC and BRIC Countries, 2000–7 (in per cent)

	Low Birth Weight	Under Five Underweight Children (WHO Reference Population)	Wasting (Moderate & Severe) (NCHS/ WHO)	Stunting (Moderate & Severe) (NCHS/ WHO)
BRIC				
India*	28	43	19	38
Brazil	8	4		
China	2	6		11
Russia	6		1	4
SAARC				
Afghanistan		33	7	54
Bangladesh	22	41	16	36
Bhutan	15	14	3	40
Maldives	22		13	25
Nepal	21	39	12	43
Pakistan	19	31	13	37
Sri Lanka	22	23	14	14

Maternal Mortality Rate

India accounts for twenty per cent of maternal mortality deaths in the world. There are stark regional variations in systemic discrimination against women with 15 times higher Maternal Mortality Rate (MMR) in the developing countries than in developed regions. Regions with high MMR have poor access to skilled birth attendants. The UN Secretary General's Millennium Development Report 2012, states that in India, 57,000 women died during pregnancy or within 42 hours of termination of pregnancy in 2010. MMR of 212 per hundred thousand live births is about 153 maternal deaths every day or six maternal deaths every hour. Globally, 2,87,000 women died during child-birth in 2010 of whom 56 per cent are in sub-Saharan Africa and 29 per cent in South Asia. Sub-Saharan Africa still has a high MMR of 500, Eastern Asia has a low of 37 while South Asia accounts for a figure of 220.

Some of the major findings in nutritional health in India are according to IHDR, 2011

- A high percentage of 21.5 babies are born with low birth weight (NFHS-3, 2005-06),
- Child malnutrition is higher in rural areas than in urban areas,
- More than 50 per cent of Scheduled tribes (ST) children are underweight and stunted,
- The prevalence of anaemia among adolescent girls is very high with severe anaemia being more prevalent among them than among pre-school children. More than 75 per cent of ST children are anaemic.
- Scheduled Castes (SCs) and STs have a higher percentage of women with BMI<18.5.
- SCs and STs, the socially marginalized groups, are particularly at a disadvantage with respect to adult female malnutrition. Malnutrition among women is higher than the national average of 36 per cent for both the SCs (41 per cent) and STs (47 per cent). The 'Others', i.e., the general category women, had the lowest incidence of women with BMI<18.5 (29 per cent).
- About 30 per cent of all adults (33 per cent of women and 28 per cent of men) have a BMI (Body Mass Index) less than 18.5, which defines adult malnutrition.
- Besides, there is intergenerational stagnation of height among Indian women, with no improvement in the heights of daughters over mothers, and growth failure is transmitted across generations through the mother.

Another factor that follows nutrition and poverty is Anaemia in relation to maternal health and mortality. Studies highlight inter regional and inter district variations in the prevalence of anaemia among pregnant women in India. The overall prevalence of moderate and mild anaemia in pregnant women was 60.1 per cent and 11.8 per cent,

respectively. Data suggests that 90.1 per cent of the girls were anaemic in India. The prevalence of anaemia among children is also very high at 78.9 per cent according to the third round of NFHS 2005-06 data. Studies also reveal inter regional and inter district variations in the average prevalence of severe anaemia and malnutrition (Toteja, et al., 2006, Chatterjee, 1990; Desai, 1994; World Bank, 1996). Malnutrition is a matter of serious concern despite declining income poverty in India because the overall per capita intake of calories and protein declined consistently over a 20-year period from 1983 to 2004-5 (National Sample Survey, 2004-05). Declining per capita intake of calories and protein is higher among rural population at 8 per cent than in urban population at 3.3 per cent. Rural calorie consumption per day declined from 2,221kcal in 1983 to 2,047kcal in 2004-5 while the urban calorie consumption fell from 2,080kcal to 2,020kcal. Studies also highlight that rural protein consumption fell by 8 per cent over the same period while urban protein consumption remained unchanged (Planning Commission, 2008). Malnutrition among women threatens their survival as well as that of their children. Further, the negative effects of malnutrition among women are compounded by heavy work demands, poverty, childbearing and rearing, and special nutritional needs of women, resulting in increased susceptibility to illness and consequent higher mortality. The declining per capita intake of calories and protein among women and girls in poor households is higher than men and boys. Patriarchy norms discriminate women and girls in regard to food consumption in rural as well urban India. The poor households are at additional disadvantage owing to poor purchasing power limiting their scope to diversify food consumption away from cereals.

Similar trends of declining protein-calorie intake among children is observed. Studies by the National Nutrition Monitoring Bureau (NNMB, 2002, 2006) reported that protein-calorie adequacy is less than 30 per cent among children and it has been decreasing for all age groups. There is a massive inadequacy/hunger leading to malnutrition in children and adolescents with a 500-600 kilocalorie deficit in energy intake (almost 40 per cent of their requirement) and multiple nutrient deficiencies such as fat, calcium, iron, riboflavin, vitamin C (all 50 per cent deficit), and Vitamin A (70 per cent deficit). Consumption of all food items except for roots and tubers were below the recommended dietary intake (RDI) levels in all age, sex, and physiological groups, according to NNMB data. The consumption of protective foods was grossly inadequate, consequently, the intake of micronutrients such as iron, vitamin A, riboflavin, and folic acid were far below the recommended levels (NNMB 2006).

A similar situation emerges in relation to women's access to health services. The consequences of poverty combined with cultural factors such as food taboos, food allocation within the household undermine women's health and nutritional status. Intra-household obstacles to health inputs are based on discriminatory patterns of allocation of

resources to individual household members. Studies suggest there are intra-household differences among men and women with regard to food, education and the financial means to access medical care services. Girls are found to start with a nutritional advantage over boys, which they lose as they grow older, to the point that by age four they have fallen behind (Banerjee and Zucker, 2011). In the context of Infant mortality rates (IMR) India has an IMR of 47 during 2011, down from 125 per 1,000 live births in 1992. Data from the October 2012 bulletin of the Sample Registration System (SRS) shows that IMR for rural areas has dropped to 48 from 51 while in the urban areas it has fallen to 29 from 31. Different forms of malnutrition are evident from 59 per cent children being stunted (height for age), 42 per cent underweight (weight for age) and 11.4 per cent wasted (weight for height) (HUNGAMA Survey Report, 2011). Of the children suffering from stunting, about half are severely stunted. Further, 66 per cent mothers did not attend school with rates of child underweight and stunting significantly higher among mothers with low levels of education. Studies also suggest positive link between underweight child under five and mother's level formal education.

Resilience and Social Safety Nets

Several parameters can act both as inputs as well as outcomes in the human development process (Mehrotra and Enrique, 2007). Better educated mothers, tend to practice better sanitation and provide good nutrients to children that helps in development of the child's brain during early childhood. Access to safe drinking water and adequate sanitation facilities would result in low morbidity from infectious diseases and better nutritional status of the children. Studies on nutritional status of children in Anganwadis (Primary child care centres) provide status on the access to health care for the poor households. About 86 per cent mothers accessed immunization from these centres. The study also observed that 61 per cent of Anganwadis centres had dried rations available and 50 per cent provided food on the day of survey, and only 19 per cent of the mothers reported that the Anganwadi centre provides nutrition counselling to parents.

We will now review the role of Social safety nets in addressing the issues of hunger and malnutrition. Integrated Child Development Scheme (ICDS) is one of the largest nutrition programmes in India. The ICDS aims to ensure that all children below six years, all pregnant and lactating mothers, and adolescent girls in all rural habitations and urban slums are provided with nutritional and health services. However, the data suggests that only 46 per cent of the children are covered by the Supplementary Nutrition Programme (SNP) of the ICDS according to the Commissioners to the Supreme Court, Ninth Report, 2009.

In India Minimum Support Price (MSP), Food Procurement Policy, and the Public Distribution System (PDS) provide subsidized food grains to the poorest families.

The PDS is most extensive state intervention in the country, operating through a large distribution network of almost half a million fair price shops (FPSs), aimed at ensuring food security to all people, especially the poor. Through the PDS, cereals are made available to *Antyodaya* card holders, below poverty line (BPL) households and above poverty line (APL) households at differential prices. Under the Antyodaya Anna Yojana (AAY), 35 kilograms of food grains are provided to the poorest of the poor families at the highly subsidized price of Rs 2 per kilogram for wheat and Rs 3 per kilogram for rice.

The Planning Commission of India in 2008 identified major deficiencies of the PDS as follows:

- (a) high exclusion and inclusion errors
- (b) non-viability of fair price shops
- (c) failure in fulfilling the objective of price stabilization, and
- (d) leakages

A study conducted in Hyderabad revealed that 77.4 per cent of the 534 households had a food distribution card (Chada and Dittrich, 2009). Of these three-quarters of them used the card for procuring the food grains from the PDS. The deficiencies of the PDS included non-availability of food grains at the fair price shops and also the women who were recipients of the PDS did not know completely about their entitlements under the scheme. As a result, the fair price shop owners cheated them. The food grains are supplied once in a fortnight. The households did not have the purchasing power to procure all the items at a time. This resulted in many not availing the PDS and the unutilized food grains were being diverted to the open market. The quality of the food grains provided to them at the fair price shops was poor (Chada and Dittrich, 2009).

The Mid Day Meal Scheme (MDM) in India is the world's largest school feeding programme that reaches out to about 110 million children spread across 1.26 million schools (Bhowmick, 2012). The program provides one cooked meal to all the children attending school. The MDM addresses the goals of universalisation of elementary education as well as improving the nutritional and health standards of children in the country. Complaints exist with regard to poor infrastructure and lack of availability of food grains and timely supply of food to the schools was the primary challenge (Chauthi Duniya, 2012). Due to unhygienic conditions and untrained staff, children appear to fall sick from time to time. Apparently the quality of food grains is often not satisfying to the children, resulting in that they do not enjoy their food. The food is not served according to the prescribed quantity to the children by some of the individuals who have taken the contract for MDM from the government and the problem is more prevalent in the rural areas. Besides, parents and children belonging to upper classes might reject food that is cooked by lower caste women or men, especially in the rural areas.

Poverty and Marginalization

Steeped in Indian society are processes of social exclusion

that despite constitutional provisions, obligations and safeguards do not allow a large section of people to receive resources of health (Commission on Social Determinants of Health, 2008). Exclusion processes operate differently with different consequences for different groups of the society (Popay et al., 2008). These processes operate along and interact across cultural, economic, political, and social—and at different levels including individuals, groups, households and communities. Caste system in India is a major indicator for health outcomes, as revealed by the Indian National Family Health Survey—III (2005–2006) that highlights lower levels of prenatal care, institutional deliveries, and vaccination coverage among SC households; higher IMR and MMR among SCs and STs (IIPS, 2006). Unequal access to health care between rural and urban areas is another process of exclusion which is further compounded by the vulnerable groups within these areas having lower use and access to health care. “Traditionally, minority ethnic groups, displaced communities, and people with disabilities have been neglected by the health system. The needs of these communities tend to be ignored, facing multiple access barriers associated with discrimination and stigma which leverage with poverty and create vicious circles” (Ariza-Montoya J, Hernández-Alvarez M, 2008). The vulnerable groups are often excluded from the official records and data systems and therefore are ‘invisible’ for health planners and services. For instance, The Right to Food draft bill in India does not mention any facilities that can be provided to individuals with HIV/AIDS.

The right to health is central to several MDGs and necessary preconditions are to be provided to preserve health. The ability to attain the highest possible standard of health depends on the availability, accessibility, acceptability and quality of health services. Inflation, withdrawal of welfare services as part of privatization, reduction in state subsidies for the poor, introducing user charges in health, food and education sectors etc aggravate the disadvantages and material deprivation among the socially vulnerable and poorer sections of the society. (Tibandebage and Mackintosh, 1999).

Public health services are inadequate and have a low reach to the poor. India ranks third in the World Health Organization's latest list of "countries with highest out of pocket (OOP) expenditure on health" in the south-east Asia region. According to World Health Statistics 2012, almost 60 per cent of total health expenditure in India was paid by the common man from his own pocket in 2009 while it was 49 per cent in Nepal, 44 per cent in Sri Lanka, 41 per cent in Indonesia, 28 per cent in Maldives, 15 per cent in Thailand and 13 per cent in Bhutan. According to WHO about 3.2 per cent of Indians would fall below the poverty line because of high medical bills with about 70 per cent of Indians spending their entire income on healthcare and purchasing drugs.

Public spending on healthcare in India, at 1.2 per cent of the GDP, is one of the lowest in the world, and this is appalling while health care in private sector has considerably

improved and makes India part of the medical tourism industry for people from the west and from the Middle Eastern countries. The growing trend of healthcare in private sector and low public spending on health care has led to skewed development of healthcare infrastructure excluding the poor and marginalised who need it most have to do with too little. Healthcare infrastructure provides around 70 per cent of the hospital beds in the private sector in the 20 cities of the country and further, 15 percent of these beds in just six cities (Gosh, S.M 2012).

Conclusions

The poor tend to carry the burden of ill health, compared to rest of the population and also utilize less public sector health resources. From an access point of view these are often excessively concentrated in large urban tertiary hospitals, depriving rural poor households' to adequate health care. According to UNDP in 1990, poor rural women suffer the greatest deprivation. Health and nutrition indicators like stunting and mortality serve as good indicators on how well the nations are performing in protecting their most vulnerable or at-risk groups. The health and nutritional status of the populations is still a cause for serious concern, especially that of the rural populations. Economic progress, health and nutritional achievement are linked broadly although the social disadvantages of certain groups are affected differently. People are no longer satisfied with general universal solutions for their problems. In order to improve the poor outcomes in health and nutrition, the problem of rural health and the concerns of the urban poor have to be addressed both at micro and macro levels. This is to be done in a holistic way, with a genuine effort to bring the poorest of the population to the centre of the fiscal policies. A paradigm shift is needed towards a culture based model which would bridge the gaps and improve the quality of life. In the context of improving community health, there should be continuity and coordination between formulation and implementation of policies with community participation and sensitization as the most important ingredient to achieving the MDGs. It is tragic as ever that gender equality is still a goal in itself. Should this not be a fundamental human right by itself?

Glossary

Body Mass Index (BMI) is defined as weight in kilograms divided by height in metres squared and reflects the nutritional status of adults. A cut-off point of 18.5 is used to define thinness or under nutrition. The percentage of persons with BMI below 18.5 kg/m² indicates severity of malnutrition among adults.

Chronic or endemic hunger is due to poverty-induced under nutrition.

Transient hunger is caused by seasonal fluctuations in food availability and disruptions in communication and transport arising from natural or manmade disasters.

Latent hunger, arising from micronutrient malnutrition, is caused by the deficiency of iron, iodine, zinc, and vitamins in the diet.

Hunger Index of India (HII) is measured by the equally weighted average of three indicators viz., percentage of undernourished population, percentage of underweight children, and mortality rate of children under the age of five. It is considered alarming if the index is in the range 20.0–29.9. see IFPRI (2010) ‘Global Hunger Index—the Challenge of Hunger: Focus on the Crisis of Child Under nutrition.

HUNGAMA Survey was an idea triggered by the Citizens’ Alliance against Malnutrition which presents data on child malnutrition at district level in India for fighting hunger and malnutrition.

Malnutrition is a physiological and pathological state resulting from an imbalance of one or more nutrients. In the present paper it is a state resulting from a relative or absolute deficiency called as undernutrition.

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