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India, Factor 11: Malnutrition

India and Malnutrition

In this day and age, most people are aware of poverty's global presence. Unfortunately, not enough of them fathom the extent of the issue's severity. The inextricable link between poverty and malnourishment expands the worsening detrimental consequences. Sub-Saharan Africa is assumed by many to be the area most afflicted by malnutrition and starvation, but the greatest problem resides in India, the world's largest democracy. The nation contains one out of every three malnourished children in the world. This ironic truth relentlessly prevails, regardless of economic growth. Poorer nations have surpassed India in addressing child nutrition; India has fallen 12 places on the child developmental index (CDI), which ranks 141 countries. If appropriate and effective measures are not taken, the government's lack of initiative undeniably will impair any further advancement. The future of any nation lies with its youth, and India's future is at risk. In some parts of India 42 percent of the children under the age of 5 suffer from malnourishment, a shocking statistic that highlights the need for profound societal reform. The substantial amount of malnourished people present in India is due to the large impoverished population, with almost one third of India's 1.1 billion people living below the poverty line (*Rural Poverty in India*). Rural areas have the most prominent role in the issue, containing 77 percent of poor people (*India: Achievements and Challenges in Reducing Poverty*). According to the Food and Agriculture Organization of the United Nations, "India's small-holder farmers (those owning less than 2.0 ha of farmland) comprise 78 percent of the country's farmers, but own only 33 percent of the total cultivated land; they nonetheless produce 41 percent of the country's food-grains" (*FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS*). Therefore, the main focus of efforts to address poverty and malnutrition should target small-holder farms.

The typical subsistence farm family contains extended, in addition to immediate, family members, making rural families larger than urban families. Cereals, especially rice and ragi, compose the majority of Indian farm families' diets, regardless of farm size. The legume red gram dhal is a staple food, in addition to curd and milk. Fruits and vegetables are rarely consumed. Ultimately, little variety is present in the diet, and local agriculture is relied upon for sustenance (B.S., Prakruthi, and Jamuna Prakash). Most submarginal-farm households need cash in order to purchase food they do not produce. Their only source of cash is selling labor and marketable products, which requires increased efficiency in order to prevent starvation.

Considering the prevalent poverty in these communities, people must rely on their government to provide funds for education. Low quality public primary education decreases the pursuit of secondary education, leading to the "same, never ending cycle of money, life and poverty" (Kaur, Ramandeep). An extremely significant factor in this cycle is the lack of educated mothers, which directly affects nutrition. The HUNGaMA Survey, a statistical study conducted in order to raise awareness of malnutrition's severity in India, notes that "rates of child underweight and stunting are significantly higher among others with low levels of education; the prevalence of child underweight among mothers who cannot read is 45 per cent while that among mothers with 10 or more years of education is 27 per cent." Access to health care is also limited in poor rural communities. The quality and availability greatly varies among districts, but the system is ultimately inadequate, largely due to the expense and the lack of education concerning the value of healthcare.

Although farm sizes vary from sub marginal (1991 average .23 ha/holding) to large (1991 average 7.95), small (1991 average 1.43 ha/holding) holdings are expected “to play a prominent part in modernizing Indian farming procedures and in achieving increased and sustainable productivity and profitability” (*FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS*). Between 1973 and 1991, the production of rice, wheat, coarse cereals and pulses all substantially increased due to technological advances and agrarian structural improvements. Sugar cane, fruits, and vegetables are less prominent crops that also increased in production. Despite these advances, not all small farmers have reaped the benefits. Agricultural practices greatly vary with farm size and location. Irrigation methods vary from mere rain water to complex well systems. Manure fertilization is more prevalent in small holder farms and is slightly more widely implemented on irrigated farms. On the other hand, larger farms utilize pesticides more than small farms do. Draught power may be supplied by machinery or animals. Sub-marginal and marginal holdings may rely on larger establishments to supply them with such resources when they need them.

India must surpass immense obstacles in order to combat the malnutrition dilemma. Although India experienced a “Green Revolution” in the 1970’s, agricultural growth has recently become stagnant. This problem seriously impacts a large portion of the population and only fosters the current unfortunate situation. Valuable public expenditures such as “agricultural research and extension, investments in rural infrastructure, and the health and education of the rural people” are being suppressed by agricultural subsidy spending. The domestic trade situation is also difficult due to overregulation, which has resulted in inconvenient price regulations. Although infrastructure is in need of improvement, accessibility and transportation have been neglected by the government. According to BBC, “for years now, India has been producing more food than it needs. Yet every year large quantities simply rot in these warehouses” (North, Andrew). Although bureaucratic efforts aimed to empower the rural poor were enforced in 1992, political corruption has led to the inefficient delivery of vital resources.

As for agricultural infrastructure, many areas lack adequate water allocation and irrigation infrastructure. Unreasonable land regulations have decreased access to land and have impaired rural investment. Although governmental efforts to computerize records have been noble in intention, they have mainly revealed “institutional weakness.” Another example of the rural poor receiving unequal opportunity is steep transaction costs, causing unreliable agricultural loans because of inadequate financial entities. According to “India: Priorities for Agriculture and Rural Development,” “one quarter of India’s population depends on forests for at least part of their livelihoods.” The government currently retains a “conservation approach,” which is ineffective in assisting the impoverished in forest communities who must therefore deal with limited access to resources.

Malnutrition is a despicable consequence of poverty and of insufficient attention towards the poor. India’s government is capable of effectively addressing the factors responsible for spurring on the deadly cycle. Although malnutrition affects citizens of all ages, children are the most heavily impacted victims - either dying or having their physical/intellectual growth stunted. According to HMA, “the economic losses associated with malnutrition are estimated at 3 per cent of India’s GDP annually” (Citizens’ Alliance against Malnutrition). By impairing its own citizens, the government is truly impairing itself. An inadequate amount of vital nutrients leads to a significant amount of detrimental effects. The short-term consequences of deficiencies in vitamin A, iron, and zinc are weak immune systems and increased susceptibility to infectious diseases, such as malaria (which is strongly prevalent in India). Impoverished youth often suffer gastrointestinal infections—a devastating combination with malnutrition because the infected child’s body cannot absorb the limited amounts of nutrients in the already substandard diet. When one nutrient is insufficient, it can negatively affect other nutrients as well. For example, “deficiencies in iron, magnesium and zinc can cause anorexia and thereby result in reduced intake of other important nutrients such as protein.” Also, vitamins such as A and D are fat soluble and

cannot be absorbed if there is a lipid deficiency present (Impact of Malnutrition on Health and Development).

The long term consequences typically include severely impaired bone growth and irreversibly damaged brain development. Especially during the foundational period of adolescence, the body is in vital need of necessary nutrients because its cells are literally composed of consumed nutrients, which is why sufficient nourishment is nonnegotiable. When a significant number of a society's young people are faced with these disadvantages, it becomes increasingly difficult to disrupt the vicious cycle and to change the fate of future generations.

The current state of malnutrition in India demands attention. Out of the 100 focus states of the HUNGMA statistical research, "42 per cent of children under five are underweight and 59 percent are stunted" (Citizens' Alliance against Malnutrition). According to *Health Issues India*, "About a third of Indians are believed to be malnourished and over 40% of children receive less food than they should." The increasing population and insufficient governmental response contributes to the spiraling impact of this predicament. Children are the most vulnerable members of society due to their lack of power and because women, therefore the children's mothers, are placed at a severe disadvantage in Indian culture.

In Indian society, women are viewed as less valuable than men. Although females seem to have a nutritional advantage over males during very early stages of life, the circumstance swiftly reverses, presumably due to cultural sexism. In order to promote improvement, Indian citizens need education on the imperative nature of adequate attention and nutrition, especially during early stages of life. Unfortunately, "In the 100 Focus Districts, 66 per cent of mothers did not attend school." Lacking education, mothers cannot ensure their children's nutrition. "By age 24 months, 42 per cent of children are underweight and 58 per cent are stunted in the 100 Focus Districts." The mothers' lack of knowledge in health impacts their children during pregnancy and breastfeeding, but also throughout childhood, because mothers establish their children's dietary habits. The implications of mothers' lack of power and control extends beyond dietary habits, especially during the vital period of time for their children. "While a majority of mothers (68.1%) in the 100FD report that they have a strong say in decisions regarding their children, only 13.7% reported that they are able to play a similar role in decisions regarding major household purchases." There are also misconceptions about the correct substances to feed to infants at certain times. For example, more than half of Indian mothers who chose not to breast-feed did so because they felt their milk was inadequate. Similarly, almost one fourth of the surveyed mothers fed their children semi-solid food too early. Most children lack a balanced diet, because "when asked why they did not give their children more non-cereal foods, 93.7% mothers in 100FD said they did not do so because non-cereal foods are expensive." For example, "100FD, the prevalence of child stunting among mothers who have never been to school is 62.9% while the prevalence of child stunting among mothers who have completed at least Class 10 is 42.6%; similar findings are observed with respect to underweight and wasting." Ultimately, mothers need empowerment in order to combat malnutrition, for they can make a positive impact before the damage is irreversible (Citizens' Alliance against Malnutrition).

Trends have actually been improving-according to the NY Times, "levels of malnutrition, while still high, have fallen by 20 percent in the last seven years." Improvement is still essential, for even "the prime minister said this rate of progress [is] too slow and called on government ministries, as well as independent groups, to focus on issues." This data is based upon extensive studies which measure various factors impacting nutrition. Increased economic prosperity has spurred some government effort, but progress is impeded by corruption. For example, "some analysts estimate that 40 percent of the subsidized food never reaches the intended recipients" (*Yardley, Jim*). The overall situation is improving, but the process needs hastening.

The issue of malnutrition derives from a lack in quantity and quality of food. Therefore, if the situation is improved through the prioritization of nutrition, food security and starvation would also be combated. Educating mothers on proper nutrition is necessary in order to ensure the health of children. More

educated women would benefit the entire nation of India. Increased economic prosperity would ensue because fewer deaths due to starvation would occur and the general public, especially in rural areas, would be more educated. Currently, immense amounts of food are wasted because of poor infrastructure. If the wasted food were used to decrease malnutrition, the economy would not have to endure the loss of human potential. The demand for adequate nutrients would diversify crops in smaller subsistence farms, leading to growth and prosperity. Multiple problems must be addressed to battle malnutrition but the ultimate result would be improvement in many aspects of the country and the quality of its citizens' lives. Various major issues have the capacity to viciously impair the battle against malnutrition. Currently, the increased necessity for resources caused by population growth is not being adequately addressed. The increased population leads to increased starvation and malnutrition. Certain factors, such as climate volatility, pollution, and water scarcity, all harm agricultural prosperity. If smaller farm families continue to rely solely on their own crops for nutritional sustenance, the consequence of unreliability will only worsen.

Realistically, smaller level farms cannot achieve food and nutrition security without gaining other types of income to support their families. Especially with increased urbanization, farmers must have versatile skills in order to thrive economically. This method has proven effective in China, where “almost 100 million persons were withdrawn from the agricultural sector and employed in non-agricultural enterprises in rural townships” (*FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS*). The government-based initiative created an extremely capable and stable workforce, which is contributing to China's economy. There is a direct correlation between an increase in non-agricultural rural employment and a decrease in rural poverty. Rural enterprises would indirectly increase the demand for improved infrastructure, which is necessary for combating malnutrition through food delivery. The vulnerability derived from complete agricultural dependency must be combatted.

Co-operatives have successfully assisted Indian farmers in the past through increasing the bargaining powers of smallholders. These “proposed large-scale rural co-operatives would expect to provide a cost-effective single-window-delivered” array of technical and financial services” (*FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS*). The growth of these partnerships would supplement desirable efforts from the government and organizations.

Concerning technology, organizations such as the National Information Centre (NIC) of the Ministry of Information Technology seek to provide farmers with modern resources. These networks will provide access to improved agricultural practices, such as weather forecasting, pest and crop disease awareness and trade strategies. These programs should increasingly focus on “low-cost technologies such as integrated pest management, integrated plant nutrition systems, water harvesting and recycling, and monitoring of efficiency of use of natural and purchased resources.” These practices can adapt to various areas, improving productivity and food security and therefore depleting malnutrition. For non-irrigated locations, “these improved technologies shall feature watershed development and water-saving techniques.” Livestock farmers can also benefit from these efforts, with technological development targeted towards animal health, nutrition, and reproduction. Advancements in biotechnology would lessen environmental pollution and make production costs more affordable (*FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS*).

Education is also necessary for the implementation of revolutionary technology because of the profound role it plays in the solution. Without adequate knowledge, the uneducated poor will not be able to utilize any of these solutions and advance productively. Education is directly related to a decrease in poverty and undernourishment. Significantly enough, “almost one-half of the heads of India's farm households lack formal education; it is pertinent also that more than four-fifths of India's child labour work in the agricultural sector, and that most of those children belong to small-holder families.” Malnutrition education, especially towards mothers, will be useless unless people know how to implement solutions.

The majority of Millennium Goals affect malnutrition in significant ways. Hunger and poverty are the direct cause of malnutrition. Malnutrition is an immensely contributing factor of child mortality. The empowerment of women and prioritization of maternal health would directly improve the nourishment of children and future generations. Impoverished persons, especially children, are much more susceptible to disease because of undernourishment. An increase in food security would ultimately lead to decrease in disease. Ensuring environmental stability would increase the reliability of agriculture, which is inextricably tied with rural nutrition. Lastly, the prioritization of education is vital to combating malnutrition.

Although governmental policy intervention is a mandatory step in universalizing education, many organizations can be utilized in order to begin improvement on a smaller scale. Considering that “in the focus states, less than 20% mothers had heard the word for malnutrition in their local language,” basic education regarding the topic and its significance is the first step to debilitating malnutrition so rural populations will be empowered to suppress it. Interested organizations or even a new organization could be formed for this purpose. A basic understanding could be established through explanatory presentations. Mothers can begin feeding their children with the correct methodology. Farmers can improve agricultural techniques but also more vehemently seek other means of income. This method would directly make rural farm families key players and give them information on small yet effective remedies before drastic intervention can be implemented. After the basis of awareness has been established, governmental policies would be more effective. Policies improving infrastructure would be an important early step. There also needs to be mandatory education reform with curriculum requirements. The government must invest in quality educators and regulate the conditions of educational institutions.

The despicable predicament of malnutrition will only worsen if the responsible entities do not provide the sufficient resources. Malnourishment is inextricably related to many other important issues. Therefore, if its eradication is the primary focus of government and of other agencies, many vital improvements will fall into place. Especially with an economically prosperous nation such as India, many resources are already present, waiting to be utilized properly and effectively. Awareness of malnutrition is the first step, but the key to systematic change lies in the methods of combat. The necessary solutions are extremely plausible- they just need increased publicity. Rural farmers and their families are currently impaired with ignorance and negligence from powerful authorities. It is not their fault; the fault rather lies in other entities that are fully capable of remedying the situation. Cultural barriers, such as female oppression, can be broken down by empowering women through education. Unless the appropriate measures are taken, the devastating cycle will continue to worsen into a downward spiral. It is the moral duty of those who are able to assist others in poverty to do so. The country will gain much more from uplifting the impoverished than it could save by refusing to spend the funds necessary for advancement. If a large portion of the population is growing up with disabilities caused by malnourishment, how is India expected to prosper on the global level? Large numbers of intelligent citizens emigrate in order to gain access to better opportunities. Furthermore, it would be in the government’s best interests to increase opportunity in India and reap the benefits of the citizens’ accomplishments. There is absolutely no reason to avoid or delay the solution to malnutrition and all of the damaging issues it entails.

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