

Critical Analysis of National Nutrition Policy and Strategies of India

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Abstract

Global malnutrition and food insecurity are rising. The root cause of both malnutrition and food insecurity is poverty. Despite a remarkable increase in food production, developing countries show alarming rates of child malnutrition. India is a good example of this dichotomy. The country that harbours one-third of the world's malnourished children is also one of the world's largest food grain exporters. Moreover, India has had the world's most extensive government funded nutrition intervention programs. A National Nutrition Policy (NNP) was enacted in 1993, one of the earliest submitted in response to the World Health Organization's call for countries to develop a NNP. India's poverty reduction strategy and food policy are also aligned with NNP. Nevertheless, despite these massive initiatives, India's nutrition problem remains a major public health concern. India's nutrition problems and national nutrition programmes are generalizable to other agro based South East Asian developing countries.

This study's objective was to explain why nutrition policy and strategies failed to address malnutrition in India. A critical discourse analysis approach was used to show textual and contextual dimensions of government policy documents in relation to the neoliberal policy and practice. A political economy lens was employed to illustrate the global food politics context perpetuating persistent hunger and child malnutrition. The study revealed that India's recent National Nutrition Strategy and National Nutrition Mission does not adequately address the lack of quality protein, fruits and vegetables and that the heavy reliance on grain is due to the government's sole support of rice and wheat production. The study also revealed that transnational agro- industries, international banking and donor organizations heavily influence India's food and agriculture policy. Finally, it identified a shift in the policy, from challenging neoliberal

globalization and Green Revolution effect to adapting national policy to neoliberal demands. In conclusion, the study showed a gap in India's current Convergence Action Plan (CAP) of all nutrition-related schemes, where the synergy between national agriculture, food and nutrition policy were not satisfactory. Sustainable nutrition security cannot be achieved without public regulation of the food system. India needs to promote a crop neutral nutrition-sensitive agriculture, free from the influence of transnational corporate agencies and their allies.

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Introduction

In a recent International Food Policy and Research Institute (IFPRI) blog post (Nov 2019), the director general of IFPRI, Shenggen Fan, wrote about his focus on food systems to mitigate the global issue of hunger. The post is compelling as Fan started with his childhood story when he was diagnosed with iron and vitamin A deficiency and was in need of supplementation. His doctor mentioned that the reason he was malnourished was because his diet was comprised primarily of rice, without any quality protein sources. Fan was recommended to consume more fish and meat. The leading cause of nutritional deficiency is an inadequate amount of protein in one's diet. IFPRI's new strategy to address malnutrition and hunger explicitly states that the "changing global food policy landscape" demands the need for sustainable production and distribution using a food system lens, "[r]ather than focusing on research priorities determined at headquarters in Washington D.C" (Fan. 2019). The document also emphasized the need for collaboration between local governments and international non-government organizations for developing a sustainable food system.

The document mentioned substantial collaboration and partnership efforts with local policymakers, which undermined the root cause of the problem. The main nutrition problem was inadequate animal protein intake, which was accelerated by the monopoly of grain-based food production initiatives.

The decades old story from south-eastern China still resembles the situation of many Asian and African agro-based countries where malnutrition is prevalent. We have gone through the WHO initiated Millennium Development Goals and are living in the era of Sustainable Development Goals (SDG). The studies on the impact of SDGs reveal that all countries did not achieve the goal

of scaling up nutrition, nor was it sustainable, as evidenced by the fact that globally 25% of the children under five years are stunted (Shrivastava, 2019).

The MDG's primary goal of eradicating extreme poverty and hunger (Bond, 2015) is replaced by SDG's goal to achieve zero hunger. I am enthusiastic to uncover how child malnutrition has taken place as the main problem instead of poverty, hunger, and food insecurity. My interest in public health nutrition, particularly exploring the long term impact of global nutrition-specific and nutrition-sensitive interventions in combating chronic malnutrition has motivated me to undertake this research. In North America, nutritionists are taught to educate people to meet their nutrient requirements through a balanced diet that incorporates a diversity of food. In contrast, international non-government organizations such as WHO and UN bodies recommend temporary feeding programs and nutrient supplementation for their target populations in developing countries. In this paper, I will explore the nutrition and food insecurity issues in India, and some of the findings in this research will be applicable to other developing countries that are experiencing similar food related issues (Gustafson, 2018). In the Indian context, food centric inequities exist at different levels, including those present at the urban-rural, interstate, and intrastate levels (Prasad, 2013). Ideally, the presence of these inequities should be addressed in the country's National Nutrition Policy.

India has a comprehensive National Nutrition Policy since 1993.. In this research paper, I investigated the National Nutrition Policy (1993), National Nutrition Strategy (2017), and recently enacted flagship program National Nutrition Mission (2018) of India to understand the gap in policy implementation that needs to be addressed to mitigate malnutrition problem in India. India's current nutrition strategies and missions are focused on an evidence-based integrated multi-sectoral nutrition intervention (Garrett, 2014). In contrast to Mr. Fan's story, I have recognized a

lack of initiative to ensure adequate protein intake and plant protein in India even though protein deficiency is known to be a major factor causing impaired growth in children. Nutrient supplementation (Vitamin A, Iron) is considered to be a prime remedy for micronutrient deficiencies instead of securing nutrient rich food consumption. Although, the downstream approach is necessary to manage severe micronutrient deficiency, India lacks of long-term holistic approach beyond short-term charitable feeding programs in order to improve the nutrition of the Indian population. The nutrition policy needs to focus on national food sovereignty and ensuring diversified food production through a sustainable agricultural system in order to combat hidden hunger and chronic malnutrition.

The objective of this research was to explore the evolution of India's nutrition policy and strategies over the last 25 years. A critical discourse analysis (CDA) was conducted to identify significant changes noticed between National Nutrition Policy written in 1993 and National Nutrition Strategy launched in 2017. This study differs from traditional nutrition policy analysis as it has taken into consideration the historical and political context of the Indian nutrition policy. This policy analysis embedded a Marxist view of primitive accumulation to explain the capitalist mode of action affecting poor farmers' and peasants' access to food production and consumption. This study is informed by the theory of accumulation by dispossession (Harvey, 2004), theories of exploitation (Smith, 2015), and the philanthropic redux mechanism proposed by Birn and Richter (2017). A political economy lens is employed to show the pattern of systemic exploitation affecting developing countries' food system from the colonial era to the neo-liberal period.

Background

1. Malnutrition in India: India is the world's second-most populous country, with a population of 1.339 billion people. There are 29 states and 7 union territories in the country. Child malnutrition is a significant public health problem in India. Malnutrition refers to both excess and inadequate consumption of daily-required nutrition. Undernutrition in India has been an area of major government concern for a few decades. Numerous nutrition intervention programs are carried out by national and states governments. Approximately 1.5 million women and children's deaths in India are associated with malnutrition (Lim, 2012 as cited in Narayan, 2019). Chronic malnutrition results in impaired growth. In India, stunting prevails in every three children out of ten, 48% of children under five years are stunted, and 43% are underweight (Narayan, 2019). According to Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India (POSHAN), 309,300 babies die the same day they are born from iron deficiency and low birth weight. A staggering 876,200 deaths occur during their first month, and 1.6 million die before 5 years of age (Narayan, 2019).

2. Primary causes of child malnutrition: Maternal malnutrition is considered to be the leading cause of child malnutrition in India. Major determinants of malnutrition in India are : 1. Maternal malnutrition, 2. Socio-cultural factors affecting feeding practices, 3. Infection, 4. Gender inequality, 5. Mothers' literacy, 6. Poverty and income, 7. Urban-Rural differences, 8. Life-style behavior, 9. Health Care services, 10. Biological factors, 11. Birth order, and 12. Birth interval (Bhutia, 2014).

In India, 36% of women are underweight, 56% of women and adolescent girls are anemic, in total, 75% of new and adolescent mothers are anemic, and during pregnancy the average weight gain is 5 kg as opposed to the recommended 10 kg (Narayan, 2019). Childhood mortality and

morbidity rates are associated with Iron Deficiency Anemia (IDA) and being underweight. The new Richmond Hill is almost completely urbanized. There are many new home subdivisions of varying ages and styles. Something for everyone. Downtown Richmond Hill along Yonge Street north of major Mackenzie Drive is currently undergoing lots of new development. The nearby Mill Pond is a popular family destination during one's pregnancy. Iron and folate deficiency anemia during intrauterine life results in neural tube defects and impaired cognitive function (Black, 2008). Women are more susceptible to IDA due to their monthly menstrual cycle.

Women living in poverty are the most vulnerable and malnourished members of the family due to gender inequality. Their diets are deficient in protein and iron-rich foods. Marriage and pregnancy at a young (adolescent) age coupled with frequent pregnancy leads to chronic malnutrition. Apart from mothers' nutritional status, some other factors that impact a child's nutritional status and health include: education, knowledge on feeding practices, income, and women's empowerment issues (Narayan, 2019 & Bhutia, 2014).

Recurrences of food and water-borne infectious diseases in India occurred due to improper sanitation, hygiene, and scarcity of pure water supply, which are also major contributing factors for child malnutrition.

3. Measures of Malnutrition: Protein energy malnutrition (PEM) is a common public health problem in India. PEM refers to "an imbalance between the supply of protein and energy and the body's demand for them to ensure optimal growth and function" (WHO, 1997). PEM measurement falls under three major categories: 1. Low weight for age, commonly known as undernutrition; 2. Low height for age, known as stunting; 3. Low weight for height, known as wasting (Bhutia, 2014). Stunting rate is widely used as the most significant indicator showing the magnitude of chronic childhood malnutrition affecting growth.

4. Classification of Protein Energy Malnutrition (PEM): Two types of Protein Energy Malnutrition (PEM) are commonly found in early childhood.

i. **Marasmus** is characterized by severe weight loss, including loss of muscle protein and subcutaneous protein. This weight loss occurred as a part of the body's adaptive mechanism to reduce the need for calories (Paruchuri, 2012). Marasmus is common in infants (6-18 months) suffering from chronic infection and improper feeding practices (Narayan, 2019).

ii. **Kwashiorkor** occurs as a result of massive visceral protein loss due to severe protein deficiency, manifested by edema and tissue damage. Kwashiorkor is common in children who are around 1 year of age; when a child is replaced from breastfeeding to a protein-deficient and carbohydrate-based diet, usually occurs when another baby is born in the family within a short interval.

5. Effect of chronic malnutrition: The immediate effects of malnutrition are impaired growth, reduced immunity, risk of recurring infectious diseases, and increased childhood morbidity and mortality rate. Malnourished children are more susceptible to diseases, and consequently need more care in order to survive. Malnutrition in intrauterine life and early age is more likely to affect health outcomes at different ages. Studies reveal that low birth weight and childhood malnutrition are associated with an increased risk of non-communicable diseases in adulthood. Chronic malnutrition is shown to lead to reduced productivity and an increased health burden, which could have a synergistic negative impact on a nation's economy.

6. Nutrition management and intervention programs in India: India has one of the world's largest nutrition intervention programs. Since 1964, numerous national and state level government initiatives are in place to combat child malnutrition and major micronutrient deficiency.

In order to analyze changes in nutrition policy and strategies of the nation, I reviewed the existing key nutrition intervention programs. Some of the major nutrition interventions are briefly described below.

Integrated Child Development Services (ICDS): In 1975, India's government launched the world's most extensive child development program. UNICEF and the national government partially funded the ICDS program to ensure the presence of primary health care services, nutrition for preschool children and their mothers, immunization, nutrition supplementation, health check-ups, and education on health and nutrition. Rural childcare centres were developed to run ICDS program schemes. These centres are locally called Anganwadi Centres (AWC). The Ministry of Women and Child Development (MWCD) launched a program in 2010, currently known as Pradhan Mantri Matritva Vandana Yojana (PMMCY) to mitigate malnutrition among pregnant and lactating women. PMMCY is a cash transfer initiative for pregnant and lactating mothers that starts once a mother gives birth to her child. Since 2013, under the Food Security Act, the maternity benefit amount is set to US \$87, although the eligibility criteria excludes many women in need.

The National Nutrition Anemia Prophylaxis Program: In 1970, the Indian government initiated the direct micronutrient supplementation program to prevent iodine deficiency, vitamin A deficiency disorders and anemia (IDA).

The Mid Day Meal program (MDM): A national primary school nutrition support program was commenced in 1995 to improve both school enrolment and nutrition status among the age group of primary school-going children. This mid-day meal program achieved success to some extent in improving school enrolment rate and nutrition status of children.

National Health Mission (NHM): The National Health Mission was inaugurated in 2005, covering both rural and urban health service delivery called National Rural Health Mission

(NRHM) and National Urban Health Mission (NUHM). The government program is carried out with the collaboration of ICDS and the Ministry of Health and Family Welfare focusing adolescent, maternal, neonatal, and child health. Nevertheless, most of the primary health centres experienced shortages of healthcare professionals, logistic support, infrastructures, vaccines and drug supplies.

Village Health Sanitation and Nutrition Committee (VHSNC): The committee plays a vital role connecting local communities in rural nutrition and sanitation. The VHSNC authorized village councils, (locally known as 'panchayat') to monitor sanitation and nutrition programs under the scheme of the National Rural Health Mission (NRHM). Panchayat Raj Institution (PRI) is crucial for any government program implementation in rural India. The PRI monitors and supervises the government staff such as Community Health Workers (CHW), Anganwadi Workers (AWW), Auxiliary Nursing Midwife and Accredited Social Health Activists. Health workers work in the target area of the community and connect villagers to health care services. Dissemination of information on nutrition, hygiene and sanitation are the key responsibilities of Auxiliary Nursing Midwife (ANM) and Accredited Social Health Activists.

Nursing Midwives are also responsible for ensuring take home rationing for all children under the age of three, pregnant and lactating mothers, and food supplementation in their designated area. The VHSNC is authorized to allocate funding for hot meals and implement food supply in the Anganwadi Centres through Auxiliary Nursing Midwives.

Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) or Sabla Scheme: In 2011, The RGSEAG scheme was launched by the Ministry of Women and Child Development (MWCD) to empower adolescent girls between 11 to 18 years of age. The

intervention provides education on the reproductive system, sexual health, family welfare, and other life skills. Adolescent girls also receive iron and folic acid supplementation through this scheme under the supervision of NRHM and Reproductive and Child Health Mission. The new Nutrition Program for Adolescent Girl (NPAG) allotted 6 kg of food grains for free, for undernourished girls.

Village Health Nutrition Day (VHND): The presence of a “Nutrition Day of the Month” program has played a significant role with regards to knowledge dissemination on maternal and child health issues in the rural community. Every month, health workers and health personnel meet villagers in AWW centers and inform them about the services available, such as vaccination, family planning education, and provision of free condoms and contraceptive pills.

Public Distribution System (PDS) and Food Safety and Standard Authority of India (FSSAI): In 1960, an initiative to provide major food commodities to low-income families failed due to food insecurity. Instead, WHO recommended to provide vitamin and mineral mixtures as an alternative to prevent micronutrient deficiencies among children. The mixture contained almost all essential micronutrients and vitamins required for children who were aged between 6 - 23 months.

The FSSAI, provided required scientific and technical support, and was established in 2006 to ensure that quality standards were being met for the food fortification program and also for the preparation of fortified midday meals.

The National Food Security Act (NFSA): The Parliament of India approved the Food Security Act in 2013, and started food grain distribution to the targeted household at a subsidized rate. According to the act, the Targeted Public Distribution System (TPDS) allocated 5 kg of wheat

or rice per person per month. The TDPS covers 1.2 billion people, approximately two-third of India's population including 75% of rural and 50 % of the urban population.

National Nutrition Mission: The recent initiative to integrate all nutrition intervention programmes is known as “POSHAN Abhyan”. The summary of this National Nutrition Mission is retrieved from the Ministry of Women and Child Development’s website and the “Operational Guideline for Convergence Action plan” (Poshan Abhyanm, nd). The Ministry of Women and Child Development launched the flagship program in 2018. The main objective of this mission is the convergence of multisectoral nutrition interventions to combat the nation's persisting child malnutrition problem.

States of India are divided into districts, and districts are comprised of multiple blocks. Convergence committees are comprised of individuals working at the block, district and state levels. The main components of the convergence are: 1) Infrastructure, 2) Service Delivery 3) Interventions, 4) Supply chain 4) Behaviour change 5) Feedback and Follow-up. The committees are responsible for planning, reviewing, coordination, monitoring, evaluating, identifying gaps, and resolving any issues. A bottom-up approach is followed in the operational guidelines of convergence action plan (CAP). For instance, at the block level, the key interventions will be assessed by the block officials. Block Convergence Committee members will analyze the gaps identified during the assessment. The committee is authorized to take action to address the gaps mentioned and ensure annual goals are achieved. Any issue requiring guidance from upper levels would be referred to the district convergence committee for suggestions. The district and state-level convergence committees would work in a way that is similar to block committees and notify the upper-level committee of any further actions. The CAP also includes the Panchayat Raj institution training to improve capacity building and effective service delivery.

7. Food policy paradigm: Despite accelerated food production and growth of multilateral agro-businesses, malnutrition in developing countries remains a global public health concern. India is a developing country highly burdened with child undernutrition. Prevalence of child malnutrition is higher in rural areas as compared to urban India, and public food distribution shows effective outcome improving nutrition in remote areas (IGC, 2017), which reveals food security is the ultimate answer to prevent malnutrition while nutrient supplementation is short-term remedy masking the underlying causes of the problem.

Since the Green Revolution, despite adequate food production, the Indian government failed to ensure food security due to a lack of resources (Government of India, 1993). The WHO promoted nutrient (vitamin and mineral mixture) supplements in India to prevent micronutrient deficiency, instead of advocating for food security for vulnerable populations. Being one of the world's largest food grain exporters, India's food insecurity is not related to a shortage in food production. The food crisis in India has emerged from a long history of exploitation by the developed North. Chronic hunger and malnutrition in the south is not merely a health problem, rather, it is a reflection of an oppressive social reproduction system. For sustainable food security and nutrition changes to be made, we need to understand the impact of global food politics on India's food system.

History of green revolution and change in food consumption behavior: India, an agro-based country, was ruled by of British for 200 years before its liberation in 1947. In the colonial period, small farmers were exploited by the British East India Company and feudalist landlords through an increased tax of the cultivable land and unfair share (one third) of crops allotted to landless farmers.

After liberation from the British empire, India became the subject of US oppression during the Green Revolution. India's food and nutrition policy is enormously affected by the post green revolution food production system. To increase food crop yield, Norman Borlaug invented a genetically modified wheat in 1954, known as "miracle wheat" (Patel, 1990). After this innovation, International Rice Research Institute (IRRI) developed high yield rice (Deepalakkhi, Nov 2016). According to Raj Patel (2013), crop production increased more than double in developing countries from 1960 to 1985. "Green Revolution" is known as the golden period for grain production in India.

The surplus grain production was hoped to lead to increased GDP and food security. But in reality, genetically modified (GMO) food cultivation had adverse effects on India's social reproduction system and food consumption behaviour. GMO food crop became cheaper due to bumper production backed by government subsidies. The high yield crops occupied all cultivatable land, subsequently the food production system shifted to a higher portion of grain-based food with a short supply of plant protein. Likewise, reduced crop diversity changed the nation's food intake behavior, which became more dependent on grain. India has the highest rate of vegetarians in the world and people living in poverty cannot afford enough plant protein to meet their needs for proper growth and development. This might be a major factor that is contributing to the severity of the stunting problem that is seen on the subcontinent.

The impacts of the green revolution affected the country's nutrition status in different ways. First, the change in food consumption behavior from a diversified plant-based diet to one that is heavily grain-based. Secondly, there were changes in the social reproduction system which led to increased social disparities and inequalities. Small farmers were unable to afford new technology, seeds, and fertilizer required for high crop cultivation. Marginal farmer and women agriculturalists

who were dispossessed from their land and means of production by affluent landowners and agro-industries, were left with chronic hunger and become day laborers who worked for a minimum wage. Finally, the food system also collapsed with detrimental effects of mono-cropping which led to the disappearance of crop diversity, the excessive need for water for high-yield crops and the depletion of groundwater which left certain areas prone to drought, and consequently uncultivable (Perkin, 2013).

Food insecurity during British Imperial Period: Food was commodified in India during the British colonial period. McMichael (2009), in his study, showed how India's food system got dismantled under British governance. Prior to British imperialism, India's rural food grain reserve was larger, surplus food was available to be distributed in local areas at local prices. Development of better transport and communication systems such as railroad creation moved food grains away from the local area, leaving local people in famine and drought. Food grains were exported in the global market for a better price than local markets. When India experienced the worst famine between 1875 and 1900, India exported huge amount of food crops, which could have fed 25 million people annually (McMichael, 2009). In 1877, there was a food riot in Bengal (a state of India), when the British government approved a relief work, a ration containing half of the recommended calorie with no protein (McMichael, 2009). In the face of peasant protests, the ration was increased but the recommended protein has never been allotted in Indian rations.

Even in today's context, the Indian Government's subsidized ration is made up primarily of grains (IGC, 2017). The history of poor peasants' protein deficient diet is hundred years long. Furthermore, since the green revolution, the government subsidy for GMO crop cultivation made the grain much cheaper compared to plant protein, which is the only option for poor people. Hidden

hunger and child malnutrition are the ultimate outcomes when local peasants and small farmers lose control over their food production, food prices, and food choices.

Food Security and Food Sovereignty in the era of globalization: McMichael and Friedman wrote about the two aspects of the global economy that are critical in shaping India's food system; firstly, "colonial tropical import to Europe" and secondly, the postcolonial US invasion with surplus food exportation and agribusinesses (Foster, 2016). After the Second World War, the power dynamics of the world economy began to change. The anti-colonial movement was aggravated. The US and the Soviet Union became the supreme powers of the global economy after the fall of British imperialism (McMichael, 2009). In 1944, the World Bank and the International Monetary Fund announced at the Bretton Woods conference that they would implement an industrial development dogma. As part of trade policy, the US distributed surplus food to developing countries. Food grain price unexpectedly fell in those countries and small farmers competing with agro-industries were devastated with the low prices of staple foods.

During the early days of the Green Revolution (1960 to 1970), the US promoted accelerated grain production in India providing seeds, fertilizer, infrastructure and agriculture techniques (Angus, 2008). In the global North, farms were occupied with ruminant based production to meet meat and milk demands, grain production was supported in the South to be imported and secure the bread supply in the North (Foster, 2016). The change in food production system in the North from cereal grain to pasture and forage for livestock impacted the food production system on the other side of the world. Prevalence of malnutrition has been greater in the dry land and forest areas of India due to environmental and geographic barriers. Furthermore, grain based mono-cropping agriculture threatened the country's crop diversity and soil fertility.

The third food regime, also known as the “new food regime”, began with globalization where corporate industries of powerful nations regulated the global food markets and underprivileged nations lost control over the market price.

In 1995, the World Trade Organization endorsed transnational agribusiness (Mc Michael, 2009). The World Bank (WB) and the International Monetary Fund (IMF) promoted low interest rate loans for transnational agro-industries. Besides easy loan repayment conditions, investment guarantee, insurance benefits and other benefits were offered to foreign investors who were financing infrastructure that would promote urbanization. (Kerssen, T. and E. Holt-Giménez, 2015). Industrial development was promoted and agricultural expansion was halted in developing countries making them dependent on the global North.

WB and IMF offered Structural Assistance Program (SAP) loans for industrial development in developing countries. The countries received the SAP loan with the condition of removing barriers for foreign investors and eliminating tariffs on imports. Furthermore, developing countries had to cut down government support for local farmers to continue receiving SAPs (Angus, 2008). From 1980 to 2004, public spending in developing countries declined with the globalization (Angus, 2008). Multinational corporations grabbed peasants' land; and also secured cheap surplus labor which consisted primarily of small farmers and peasants who lost their land as a result of development projects.

A few profitable agribusiness giants control 85% of the world's grain trade (Angus, 2008). WTO's Agreement on Agriculture (AoA) patronized these companies in retaining artificial food prices. While low income countries are forced to eliminate subsidies in agriculture and open their food market to foreign food products, Europe and the US have granted huge amounts of subsidies to grain, milk and meat producers to assure lower food prices (McMichael, 2009).

Every year more than enough food is produced to feed the whole world population (FAO, 2007). Over the last two decades, population growth dropped by 1.14 %, with a yearly 2% rise in food production (Holt-Gimenez, 2009). It is the stark price hike that created a food crisis in the third world. WB reported an 83% food price hike over the past three years (2008), FAO world food price index showed a 45% increase of price over only nine months (Holt-Gimenez, 2009). A significant portion of the global population lived in hunger during the same year when record profits were gained from harvests. Food price is also affected by climate change, increased oil price, and a greater agrofuel need of modern civilizations. Since the US subsidized agrofuel (corn used in vehicles) is more profitable, rice production is being replaced by agrofuel (Angus, 2008). The nongovernment organizations like FAO, WB, IMF, WTO and Group for International Agricultural Research (CGIAR) work as the shadow government of the capitalist North and pursue the neoliberal market economy's interest. These NGOs made the developing world dependent on transnational companies for their food and these organizations play a big role in regulating the countries' food systems. When corporate agencies have the mandate of ensuring that the world is "food secure", no wonder chronic hunger and malnutrition are persistent in a country like India!

The majority of public health research shows prevalence and severity of malnutrition, intervention programs and an evaluation of their success. This study aims to analyze India's malnutrition problem from a political economy standpoint by digging deep into the underlying causes of malnutrition in India.

From a nutrition perspective this study also draws attention to the food sovereignty issue in agriculture, food and nutrition policy in India. The corporate world popularizes the term 'food security' to promote grain production in developing countries. In Southeast Asia, peasants and farmers are unaware of the ongoing peasant movement on the other side of the world demanding

food sovereignty. In 1996, international peasant federation La Vía Campesina (The Peasant Way) defined food sovereignty as "people's right to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems" (Holt-Gimenez, 2009). Food sovereignty demands control over one's own food system including production, marketing and distribution of food. This challenges the corporate monopoly over the food system that we see across the globe today (Holt-Gimenez, 2009). The expansion of the corporate world and profitable agro-businesses formidably affects food prices and this has impacted the current food crisis seen in many developing countries. The persistent malnutrition problem in developing countries cannot be mitigated without challenging the global food politics landscape. This paper offers a discussion on the need for demanding more than food security - there is a necessity to gain control over the food system in order to create sustainable and equitable solutions.

Theoretical Consideration

This paper employs a political economy lens to show that food crisis in developing countries results in chronic hunger and malnutrition is potentially more of a political problem than health. The underlying causes of child malnutrition are global food politics, corporate leverage on food system, and change in social reproduction system intensifying inequality and poverty in the era of globalization. Poverty is recognized as the prime cause of the double burden of malnutrition in the developed world, since both obesity and undernutrition are strongly associated with poverty. Hence an upstream approach to address poverty and hunger is strongly recommended by nutrition policy experts. While expected policy level interventions are not seen in the capitalist countries, the dialogue and discussion to increase social safety net are ongoing processes.

The context of the South Asians food and nutrition policy is different. Nutrition upgrade is an important part of the United Nation's development agenda like SDG and MDG targeting the developing world. The developing countries' nutrition policies and strategies are predominantly followed by the donor international organizations' nutrition supplementation recommendation, and multisectoral nutrition interventions are promoted in the least developed countries (Garrett, 2011). Informed by development theory (Frank, 1966), I argue that malnutrition is problematized in place of food price hike and inequality. Hacker and Pierson (2010) identified 5 changes responsible for increased inequality: "(1) financial markets, (2) corporate governance, (3) industrial relations and (4) taxation". Whereas, Willyard (2016) claimed that, policy drift occurred because of corporate actions even though policies to improve equality are in place. In this analysis I have shown the changes in nutrition policies and strategies in neoliberal context.

Indian Nobel Laureate Economist Amartya Sen in his seminal presentation "Development as Freedom" referred to the success stories of China, Kerala state of India and Costa Rica. (Navarro, 2000). During 1960 to 1980 China has more success in achieving better nutrition and education among young children and other vulnerable population. Navarro (2000) pointed that Sen's analysis showed that economic growth is the result of capital distribution and human development which are the symptoms of developments. Navarro also discusses that Sen avoids a focus on the political context of development.

In this paper, I explored the historical background of green revolution and its effect in food production and food consumption behaviour. A Marxist view is taken following the concept of "primitive accumulation" to explain the disrupted food system in India resulting from the capitalist mode of production. Marx defines the capitalist mode of production as "the process which takes away from the labourer the possession of his means of production; a process that transforms, on

the one hand, the social means of subsistence and of production into capital, on the other, the immediate producers into wage labourers” (Marx, 1867) “The economic structure of capitalist society has grown out of the economic structure of feudal society. The dissolution of the latter set free the elements of the former” (Marx, 1867). India also has experienced the transformation of feudal exploitation into capitalist exploitation.

In the era of globalization, exploitation of underprivileged South by the developed North is continued through land occupation and dispossession of peasants and small farmers from their means of production by giant agro industries (Angus, 2008). In a free-market economy, the land is owned by the agriculture industry, and cheap surplus labor is available for maximum profit. David Harvey (2004) modified the Marxist concept of primitive accumulation in the neoliberal context and named the continuous exploitation process as "accumulation by dispossession".

In regards of nutrient supplementation, Bill and Melinda Gates Foundation (BMGF) and UNICEF have promoted the term "Micronutrient deficiency" (Birn, 2017). Informed by theories of exploitation (Smith, 2015), philanthropic redux mechanism of Birn and Richter (2017) I discuss a link between the philanthrocapitalist's' role in promoting supplementary feeding programs in developing countries.

Methodology

Critical Discourse Analysis: I have taken the Critical Discourse Analysis (CDA) approach for the national government policy analysis. Although, as a discourse nutrition science is intermingled within natural and social science, human nutrition status depends more on the socioeconomic status than the biological state. However most public health practitioners are not familiar with the political context in which the public health policies are formulated (Lupton,

1992). The trend in developing countries' public health policies seems similar in problematizing health outcomes undermining the global politics perpetuating the health problems.

CDA methodology critically analyzes the language and text that reproduce the dominant beliefs of the discourse hence most effective in understanding the sociocultural and political motifs of the government policy. Following work of Fairclough who proposes, CDA approaches to understand and uncover the text and language of the discourse that play critical role in reproducing, challenging and legitimizing the power dynamics and dominating the social structure through hierarchy practices (Fairclough, 1993 and Chaufan, 2019) I analyze India's nutrition policies and strategies to explore the socio-political context and power dynamics that shaped the recent pattern of nutrition policies of the developing countries.

The focus of discourse in CDA is both "socially constitutive" and "socially conditioned" (Blommaert and Bulcaen, 2000, p. 448). Chouliaraki & Fairclough (1999, 4) describe the logic of CDA: "It is an important characteristic of the economic, social and cultural changes of late modernity that they exist as discourses as well as processes that are taking place outside discourse, and that the processes that are taking place outside discourse are substantively shaped by these discourses.

Key limitations of CDA include (Blommaert and Bulcaen, 2000):

(a) A lack of focus on context: "At the same time, CDA may benefit from the critical potential of these related developments in order to remedy some of its theoretical and methodological weaknesses, notably those related to the treatments of context in CDA. The latter is arguably the biggest methodological issue faced by CDA" (Blommaert and Bulcaen, 2000, p. 460). Blommaert and Bulcaen (2000) recommend a focus on ethnographic studies to more deeply understand issues

of dynamic contexts " In general, more attention to ethnography as a resource for contextualizing data and as a theory for the interpretation of data could remedy some of the current problems with context and interpretation in CDA" p. 460

(b) A second weakness in CDA is its lack of attention to historical events. Again consider Blommaert and Bulcaen (2000, p. 461). "The contextualization of discourse data would benefit from a more attentive stance toward the historical positioning of the events in which the discourse data are set (as well as of the historical positioning of the moment of analysis: "Why now?" is a relevant question in analysis)."

Data: India's national nutrition policies and strategies have gone through review and changes since 1990, following the UN initiated development goals. Garrett (2014) mentioned the following seven milestones in his study.

1. National Nutrition Policy recommending interministerial coordination -1993
2. National Plan of Action on Nutrition -1995
3. Assessment of sectoral nutrition achievement in 9th Five Year Plan -1998
4. 10th Five Year Plan calling for National Nutrition Mission to monitor NNP implementation - 2003
5. 11th Five Year Plan devoid of any follow up from NNP, National Plan of Action and NNM- 2007
6. Prime Minister's National Council on India's Nutritional Challenges selected 200 high-burden districts to implement multisectoral nutrition interventions- 2008
7. 12th-year action plan following the National Councils multisectoral approach proposed nutrition council set up at state and district levels-2017

The primary data sources of this critical discourse analysis were derived from the website of the Ministry of Women and Child Development, Government of India. Three main government documents were analyzed in this study.

1. NITI Aayog: National Nutrition Strategy, Government of India (2017): India's **National Nutrition Strategy** is published in 2017, with the specific goals of a 40% reduction in stunting children under 5 years, a 50 % reduction of anemia in women, and 30 % reduction in low birth weight by 2025 (Government of India, 2017). The document was derived from Aparna Atsuddi (Ph.D.), who completed her doctoral program on dietetics from Maharaja Sayajirao University of Baroda, India.

2. The National Nutrition Policy, Government of India (1993): Public policy is an instrument to reveal the government's approach to the problem and political stand. The contrast between nutrition interventions in developed and developing countries motivated me to search for India's previous nutrition policy. I took a retrospective approach for the background study to understand the pattern of changes in the developing countries' public policies. India's National Nutrition Policy was obtained through Google search. This 22-page policy document drafted in 1993 by the Ministry of Human Resource Development, India.

3. Operational Guideline for Convergent Action Plan (2018): In 1993, the National Nutrition Mission (NNM) was constituted to monitor and execute the National Nutrition Strategy. The prime minister was the commission's chairperson. The mission was convened for a long time. A roadmap is drawn in the NNS to implement the multisectoral interventions. ICDS programs were implemented in 200 high nutrition burden districts. Lack of coordination between Ministry of Women and Child development and Ministry of Health and Family Welfare was noticed. In 2018, The Government of India launched The National Nutrition Mission or POSHAN Abhiyan

as a flagship program to integrate all nutrition interventions "with the vision to ensure malnutrition free India by 2022". (About Poshan, August 22, 2020). POSHAN is a multiyear project stands for Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India "that aims to build evidence on effective actions for nutrition and support the use of evidence in decision making. It is supported by the Bill & Melinda Gates Foundation and led by IFPRI in India" (Vir et al, 2014).

In Government of India's website, POSHAN Abhiyan is elaborated as Prime Minister's Overarching Scheme for Holistic Nutrition. The data and information about the flagship program "National Nutrition Mission (2018)" are taken from the "Operational Guideline for Convergent Action Plan" (WCD, 2017; NITI; 2017)

From this policy analysis I attempted to show the public health discourse ideology and cultural hegemony embedded in the texts normalize the political and socioeconomic context of persisting hunger and malnutrition. I discussed both the textual and contextual dimensions of nutrition policies following the concept of Deborah Luton (1992). India's nutrition policy that addressed the social determinants of health recommending structural changes were not followed up in consecutive nutrition strategies and action plan. The changes in language, readability, change in intervention strategies, and historical background of globalization impacting nutrition policies are revealed in this CDA.

Findings

Malnutrition problems identified in the National Nutrition Policy (NNP, 1993) and National Nutrition Strategy (NNS, 2017): The introduction section shows a vicious cycle of poverty, where poverty and hunger were determined as the underlying cause of malnutrition

(Fig.1). The next section is significant, pointing a distinct approach from the current nutrition strategy stating,

"This general problem of under-nutrition should be seen as a part of a larger set of processes that produces and consumes agricultural commodities on farms, transforms them into food in the marketing sector and sells the food to customer to satisfy nutritional, aesthetic and social needs. Within this set, there are three sub-sets of issues within the broad sectors of agriculture, food and nutrition, with various linkages among them. In fact, the third subset, viz. Nutrition, is the net-result of the other two subsets".

(Government of India, 1993, p.1-2)

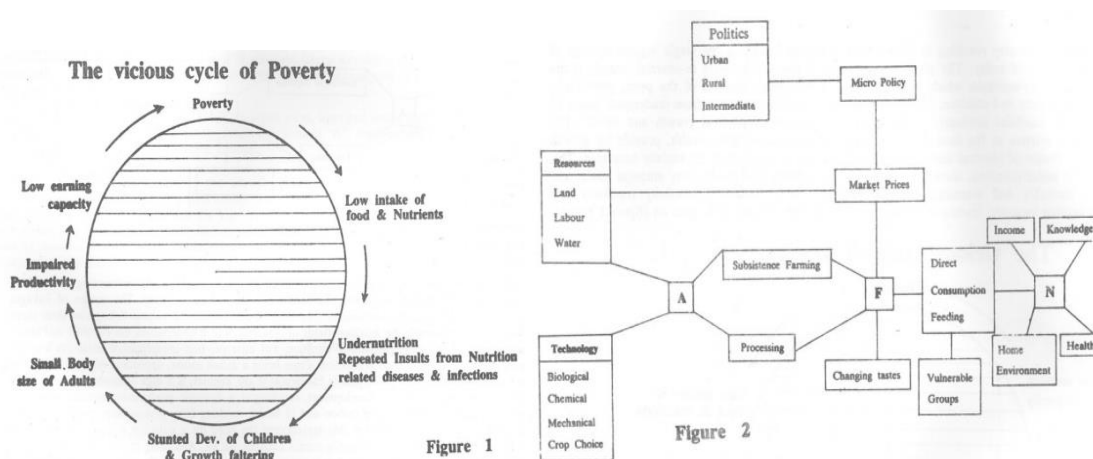


Figure 1

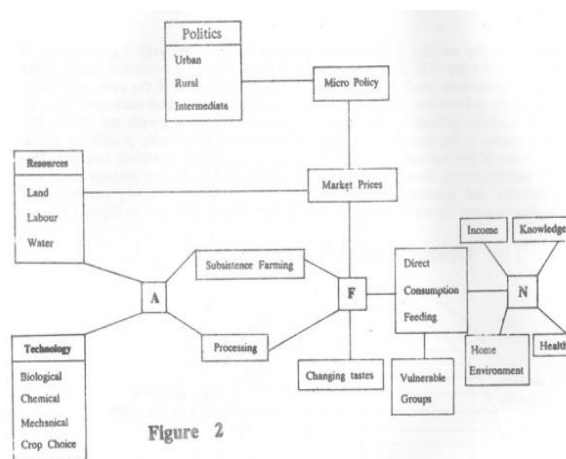


Figure 2

From the above annotation I observed two important facts which were not clear in the more recent nutrition strategy. First, the policy acknowledged nutrition as an integrated part of food and agriculture. Second, In figure 2 it shows the components of food system affecting nutrition such as resources (land, labor, water), technology, farming, processing, politics, micropolicy, market price etc. In description of nutrition situation in India the policy mentioned the causes and problems together in same section. NNP (1993) also addressed the socioeconomic and political determinants.

“The major nutrition problems of India can be classified as follows:-

(1) Under-nutrition resulting in:

(a) Protein Energy Malnutrition (PEM); (b) Iron deficiency; (c) Iodine deficiency, d)

Vit "A" deficiency, (e) Low Birth Weight children;

(2) Seasonal dimensions of Nutrition;

(3) Natural calamities & the landless.

(4) Market Distortion and Disinformation

(5) Urbanisation.

(6) Special Nutritional Problems of Hill People, Industrial Workers,

Migrant, Workers, and other special categories;

(7) Problems of overnutrition, overweight and obesity for a small section of urban population” (Government of India, 1993, p.3-4).

The nutrition problems list in the NNP differs from recent trends of the reductionist approach. Common macro and micronutrient deficiencies are enlisted as top priority problems (1) and socioeconomic determinants of malnutrition are listed below as underlined (2, 3, 4, 5, 6)

NNP mentioned the landless farmers are the most vulnerable groups for a couple of time with the causality of their food insecurity.

“Seasonal Dimensions:- In the duality *of* the Indian situation, where high-yielding modern agriculture co-exists with rain-fed subsistence farming, there are serious seasonal dimensions *of* the nutrition question. In large parts *of* India, the rainy months are the worst months for the rural, landless poor. This is when cultivation, deweeding, ploughing and other works demand maximum energy from them while

food stocks at home dwindle and market prices rise.” (Government of India, 1993, p.6).

“Natural calamities & Nutrition:- This same group of rural landless poor is most vulnerable to droughts, floods and famines; As has been established in famine periods, worst affected groups are the landless agricultural labourers, artisans, craftsmen and non-agricultural labourers in that order” (Government of India, 1993, p.7).

NNP also addressed the market price fluctuation affecting the landless labor, recognising the reality of food insecurity caused by food price hike despite surplus food production. The following statement demonstrates the governments’ concern for deregulation of the market price.

"Market Distortion & Disinformation: A striking feature which has now been established is that famines are caused not so much by any real decline in food availability as by a sudden erosion of purchasing power of these marginal groups who compulsively depend on the market (landless labourers etc.). In fact lessons from all over the world have proved that it is not any substantial food shortage, but the psychosis of food shortage and the widespread belief regarding crop failure, that triggers off price rise spirals resulting in major malnutrition situations." (Government of India, 1993, p.6).

In addition to challenges of regional and occupational limitation, urbanization, another industrial development phenomenon, was also taken into consideration which has not been mentioned in any later nutrition strategy or nutrition commission documents. The policy noted:

“The deleterious effects of rural urban movements on nutrition in much of the third world is quite well known. The children of urban slum dwellers and of the urban informal sector are nutritionally the most fragile of all groups. Uncertainty of income

and the absence of informal nutritional support systems within society, so common to rural areas of India, place many of these families on the very edge of survival. The fallout of a spreading urban culture, which encourages diversion of a high proportion of family expenditure to luxury goods & entertainment aggravates the situation. Poor sanitary conditions, acute respiratory infections and communicable diseases characterize these urban' settlements.” (Government of India, 1993, p.6).

In contrast to the policy, situation analysis of the National Nutrition Strategy showed prevalence of child undernutrition. The data from the underprivileged states are presented to show the stunting, wasting, underweight rate in children and percentage of low BMI and anemia in women. The underlying cause (poverty and hunger) was not discussed, instead of addressing the socioeconomic determinants of marginal community (e.g.rural farmers, urban slum dwellers) NNS focused on only child malnutrition.

Goal, Objective and Target population: If we closely examine the texts, the policy showed an inclusive approach, addressing socioeconomic context, causality of malnutrition, rural-urban vulnerable groups and structural changes required for a condition to improve overall nutrition within 22 pages.

“A Policy having a mere long term effect, even if beneficial for the nutritionally at risk population, would not suffice. After all, this group has too little to live on in the long run and has too much to die of in the short run. Therefore, both short as well as long term strategies, are called for comprising both direct as well as indirect interventions”(Government of India, 1993, p.3)

Whereas, the strategy published in 2017, focused on the short term direct interventions to reduce rate of child and maternal malnutrition revealed in the following paragraphs.

“The National Nutrition Strategy will therefore contribute to key national development goals for more inclusive growth, such as the reduction of maternal, infant and young child mortality, through its focus on the following monitorable targets-

- To prevent and reduce undernutrition (underweight prevalence) in children (0- 3 years) by 3 percentage points per annum from NFHS 4 levels by 2022.
- To reduce the prevalence of anemia among young children, adolescent girls and women in the reproductive age group (15- 49 years) by one third of NFHS 4 levels by 2022.” (Government of India, 2017, p25).

Significant differences in the intervention strategies: India’s nutrition intervention initiatives are meant to cover most vulnerable groups. Majority of direct interventions targeting the vulnerable groups were implemented and expanded over the time. Conversely, indirect interventions in the policy instrument asking for structural changes are not followed up after 2007. Social determinants are mentioned in the recent nutrition strategy (Government of India, 2017) as basic determinants of nutrition, though strategy to improve the “basic determinants” are not discussed. In this segment I extracted the policy texts (Government of India, 1993) recommending strategy to improve socioeconomic determinants of nutrition which has no more appeal in recent strategy and commission. The policy states

“The Strategy: Nutrition is a multi-sectoral issue and needs to be tackled at various levels. Nutrition affects development as much as development affects nutrition. It is therefore, important to tackle the problem of nutrition both through direct nutrition intervention for specially vulnerable groups as well as through various development

policy instruments which will create conditions for improved nutrition.”

(Government of India, 1993, p7)”

The policy instruments are divided into two major type of interventions:

A. Direct intervention – short term

(i) Nutrition Intervention for specifically vulnerable groups:

- (a) Expanding the Safety net
- (b) Reduce severe and moderate malnutrition incidence by half by the year 2000
- (c) Reaching the adolescent girl
- (d) Ensuring better coverage of expecting women

(ii) Fortification of Essential Food

(iii) Popularization of Low Cost Nutritious Food

(iv) Control of Micro-Nutrient deficiencies amongst vulnerable groups

B. Indirect Policy Instruments: Long Term Institutional & Structural Changes:-

(i) Food Security

(ii) Improvement of Dietary pattern through Production and Demonstration

(iii) Policies for Effecting Income Transfers so as to improve the entitlement package of the rural and urban poor

(a) Improving the purchasing power

(b) Public Distribution System

(iv) Land Reforms

(vi) Basic Health and Nutrition Knowledge

(vii) Prevention of Food Alteration

(viii) Nutrition Surveillance:

- (ix) Monitoring of Nutrition Programmes
- (x) Research
- (xi) Equal Remuneration
- (xii) Communication
- (xiii) Minimum Wage Administration
- (xiv) Community Participation
- (xv) Education and literacy
- (xvi) Improvement of the Status of Women (Government of India, 1993, p7-p11)

The core strategy of the National Nutrition Strategy is framed as following:

“Core Strategies - “HOW”

- Governance Reform- Nutrition Centre Stage and Public Accountability
- Leading by Example- Kuposhan Mukta States, districts and panchayats.
- Convergence- of State/ District Implementation Plans for ICDS, NHM and Swachh Bharat and others, addressing different determinants of undernutrition together.
- Prioritize Action- Reaching the most vulnerable communities in the districts/blocks with the highest levels of child undernutrition.
- Counseling to Reach the Critical Age Group- pregnant and lactating mothers, and children under 3 years, through skilled counselors, peer counselors and support groups.
- Continuum of care- across the life-cycle that includes preventive, promotive and curative care, linking families, communities, AWCs, health centers and health facilities.

- Innovative Service Delivery Models- demonstration and ripple effect, with evidence of impact.
- Community Based Monitoring- Making undernutrition visible to families, communities, tracking and informed action.” (Government of India, 2017, p39)

From this frame we can see the basic differences between the intervention strategies outlined in the two government policy documents in different points of time.

Overview of language and content changes of the documents:

1. The National Nutrition Policy of India (1993) was written in simple language, using less complicated words and jargon making easy and understandable for all. The 22-page long policy is comprised of 7 sections: 1. Introduction, 2. Need for a Nutrition Policy within the Development context, 3. The Nutrition Status of India. 4 The Existing Policy Instruments for Combating Malnutrition. 5. Nutrition Policy Instruments, 6. Administration and Monitoring & 7. Intervention Programmes to Combat Malnutrition. The policy addressed poverty and food security as the root cause of malnutrition. It has been more than two decades when the policy outlined the short term strategies as “Direct Nutrition Intervention (DNI)” for vulnerable, and long term “Indirect Nutrition Intervention” to address socioeconomic determinants. Indirect policy instruments are briefly described in the policy beside DNI.

Whereas National Nutrition Strategy proposed nutrition interventions, also classified into two categories, introduced as

i) Nutrition specific interventions and ii) Nutrition sensitive intervention.

Nutrition-specific interventions include feeding practices and behavior, fortification of food, micronutrient supplementation, and acute malnutrition treatment, and nutrition-sensitive

interventions include agriculture, clean water and sanitation, education, employment, social protection, health care, and support for resilience. (SUN, n.d). The classification is very similar to NNP, nevertheless the nomenclature is explicitly unfamiliar to the people who are not from the public health and nutrition discourse. Moreover the nutrition strategy (2017) did not discuss the indirect or nutrition sensitive interventions in its 114 page documents consist of 16 segments. The National Nutrition Strategy mentioned following 15 ministries which administer India's numerous nutrition sensitive programs: Ministry of Health and Family Welfare (MHFW), Ministry of Drinking Water & Sanitation(MWDS), Ministry of Consumer Affairs, Ministry of Food & Public Distribution (MCAFPD), Ministry of Food Processing Industries (MFPI), Ministry of Agriculture(MA), Ministry of Rural Development(MRD), Ministry of Skill Development(MSD), Ministry of Human Resource Development(MHRD), Ministry of Information and Broadcasting (MI&B), Ministry of Panchayati Raj(MPR), Ministry of Youth Affairs (MYAS), Ministry of Tribal Affairs (MTA), Ministry of Social Justice and Empowerment(MSJE), Ministry of Minority Affairs(MMA). Those ministries have their own services besides the long list of nutrition related interventions. The Integrated Child Development Services (ICDS) works under the Ministry of Women and Child Development (MWCD). The MWCD is thriving to coordinate and collaborate other ministries. National Nutrition Mission is developed to monitor the convergence between the nutrition sensitive and nutrition specific intervention administered by the different ministries.

To ensure food security NNP recommended 215 kg food grain allowance per person per year. Additionally, the policy pointed the loophole in the agriculture and food production system and emphasized on the diversified food production. The policy states,

"The production of pulses, oilseeds and other food crops will be increased with a view to attaining self sufficiency and building surplus and buffer stocks. The production of

protective food crops such as vegetables, fruits, milk, meat, fish and poultry shall be augmented. Preference shall be given to growing foods such as millets" (Government of India, 1993, p.8).

Unlike recent nutrition strategy and flagship program the policy addressed the adverse effect of green revolution. It also urged for market regulation and food price control which is revealed in the following paragraph.

"Our Agricultural Policy has been hitherto concerned with production exclusively and not nutrition, which is the ultimate end. While the Green Revolution has largely remained a cereal revolution, with bias towards wheat, coarse grains and pulses, which constitute the poor man's staple & protein requirements, have not received adequate attention. The prices of pulses, which were below cereal prices before the Green Revolution, are now almost double the price of cereals. Our Food Policy should be consistent with our national nutritional needs and this calls for the introduction of appropriate incentives, pricing and taxation policies".(Government of India, 1993, p.8)

Land reform, the most challenging question in the South East Asian context, is mentioned in the NNP relaying a powerful message for the mercantile food system. The NNP recommends:

"Implementing land reform measures so that the vulnerability of the landless and the landed poor could be reduced. This will include both tenurial reform as well as implementation of ceiling laws" (Government of India, 1993, p.9).

Women empowerment and education are also emphasized in this policy, asking equal remuneration, minimum wage administration, and maternal benefits to improve women's health and nutrition status.

Operational Guideline for Convergent Action Plan (2018):

Convergence is the keyword in National Nutrition Mission, and the main pillar of this mission is the operationalization of convergence between all nutrition-related health interventions. The convergence action plan (CAP) took

“lifecycle and result oriented approach. It focuses on adolescent girls, pregnant women, lactating mothers and children from 0 to 6 years of age” targeting the first 1000 days of a child. (Government of India, n.d.)

The CAP illustrated a framework for convergence committees from the national to block level. The committees are responsible for planning, reviewing, coordination, monitoring, evaluating, gaps identification, and resolution actions. The main components of the convergence framework are: 1) Infrastructure, 2) Service Delivery & Interventions, 3) Supply chain, 4) Behaviour change and 5) Feedback & Follow-up.

“The primary goals of the POSHAN *Abhiyaan* are

1. Prevent and reduce Stunting in children (0- 6 years) By 6% to 2% p.a.
2. Prevent and reduce under-nutrition (underweight prevalence) in children (0-6 years) by 6% to 2% p.a.
3. Reduce the prevalence of anemia among young Children(6-59 months) by 9% to 3% p.a.
4. Reduce the prevalence of anemia among Women and Adolescent Girls in the age group of 15-49 years by 9% to 3% p.a.
5. Reduce Low Birth Weight (LBW). By 6% to 2% p.a.”

All states of India are divided into districts, and districts are comprised of multiple blocks.

“A bottom up planning process will be adopted in the development of the CAP, with block CAPs being consolidated to form district CAPs, and further consolidated to form the State

CAP. To facilitate the bottom up approach of convergence plan adoption, it is suggested that the Block Resource Group and District envisioned under the POSHAN *Abhiyaan* Guidelines may be given the responsibility of consolidating the convergence plans received from individual blocks and districts”.

For instance, at the block level, the key interventions will be assessed by the block officials. Block Convergence Committee members will analyze the gap identified in the assessment. The committee is authorized to take actions to address the gap and ensure annual goal achievement. Any issue requiring assistance would be referred to the district level, seeking additional suggestions. The district and state-level convergence committee would work similarly to the block committees and notify the upper-level committee for further actions. The CAP includes Panchayat Raj institution training to improve capacity building and effective service delivery at the village.

Discussion

Chronic malnutrition is one of the most common health problems in developing countries, with prolonged undernutrition in childhood adversely affecting proper growth and development at different stages of human life. The United Nations and its allied organizations recognize hunger and food insecurity as a critical underlying cause of malnutrition. In 2000, the UN launched the Millennium Development Goals (MDGs), the first of which focused on eradicating extreme poverty and hunger. In 2015, the MDGs were replaced by the Sustainable Development Goals (SDGs), with one of the 17 goals focusing specifically on achieving “Zero Hunger by 2030” (UNDP, nd). The UN leads to a myriad of nutrition programs as an intractable part of this development goal. Yet, globally 25% of children under 5 years continue to be growth impaired

(Shrivastava, 2019). Hence, it is important to critically analyze the effectiveness and sustainability of such nutrition programs.

Despite expanded DNI implementation, malnutrition in India remains a persistent problem. Recently, India's National Nutrition Strategy (2017) came up with evidence-based nutrition intervention programs, commonly known as "integrated multisectoral nutrition intervention" in the public health discourse. The new integrated intervention model is adapted from the SDGs proposed by UN health agencies to mitigate malnutrition problems in developing countries.

"Integrated nutrition interventions are accepted as best practices in Scaling Up Nutrition (SUN) following their success in Bolivia, Colombia, Peru, Senegal, and Thailand" (Kohli & Kadyala, 2014). SUN is a part of the Sustainable Development Goals, which involves 61 members from developing countries with UN partnerships (SUN, n.d.). SUN's main target is to ensure adequate nutrition during the first 1000 days of life (from intrauterine up to two years of age) to reduce the rate of global child malnutrition (SUN, n.d.). It is believed that "effective implementation of some 10 nutrition-specific interventions, for example, improving feeding and hygiene practices and micronutrient supplementation will avert approximately one-fifth of the existing burden of undernutrition"(Kohli & Kadyala, 2014). These nutrition interventions became a landmark for developing countries' national nutrition policies.

India's national nutrition policy and strategies have gone through various stages. Previously, India's nutrition policy addressed the Green Revolution effect and identified the need for structural changes in the food system. However, more recent Indian nutrition strategies and flagship programs have focused on SUN intervention strategies. According to the NNP, from 1957 to 1979, household calorie and protein consumption among all income groups in the urban area except the slum dwellers were above the level recommended by Indian Council of Medical Research (ICMR).

From 1975 to 1989, a similar pattern was observed among the rural population: "the average intake of calories at the lowest income group had a definite increasing trend during the seventies" (Government of India, 1993, p.3). Though protein and fat intake were not satisfactory, household calorie consumption was on the rise during the 1970's.

After the Green Revolution, overall protein and energy-dense food intake decreased. In addition to the effects of seasonal dimensions and natural calamities on nutrition, India's nutrition policy also addressed vulnerability among landless rural populations during the Green Revolution, which demonstrated a comprehensive approach going beyond public health discourse.

Most of the features such as embedded in the structural changes recommended in the NNP disappeared in consecutive nutrition strategies, action plans and nutrition missions. The indirect policy instrument includes: food security, improvement of dietary pattern through production and demonstration, policies for effecting income transfers to improve the entitlement package of the rural and urban poor, land reforms, health & family welfare, basic health and nutrition knowledge, prevention of food adulteration, nutrition surveillance, monitoring of nutrition program, research, equal remuneration, communication, minimum wage, administration, community participation, education, literacy and women status improvement.

From a nutrition perspective, we have seen that the prime cause of impaired children's growth is lack of adequate protein intake. Since the Green Revolution, the lower production of plant protein increased the demand and price of protein. The NNP asked for equal public distribution of coarse grain, jaggery, pulses with basic rice, wheat, sugar, and oil. Although the NNP explicitly recognized the underlying cause and effects of a protein-deficient diet, this vital issue remains unaddressed in consecutive government nutrition programs and policies.

The NNP did not merely focus on the adequate quality and quantity of food; it also addressed the socio-economic context that affected rural, landless, and urban poor people's access to food. The NNP recommended employment opportunities for rural landless people and urban slum dwellers. This policy document raises the issue of the landless rural poor and urban immigrant slum dwellers a couple of times, revealing its specific concern for marginalized populations adversely affected by specific aspects of industrial development and economic globalization.

Indian nutrition policy and strategies have typically been reflective of the United Nation's development agendas. India's National Nutrition Policy was enacted in response to a call for developing countries' NNP formulation by the WHO and FAO at the International Conference of Nutrition in 1992 (Vir et al., 2014). India is one of the advanced countries to submit the complete NNP since the work was going on from 1980. At that time, the policy focused on the social structure, food system and political economy affecting nutrition such as poverty, agriculture, the Green Revolution, market distortion, urbanization, women's empowerment, purchasing power, food price hikes, lack of food diversity, and so on. From 1990 to 2015, the MDGs targets included reducing the proportion of the population with per day income below US\$1 as well as halving the population living in hunger, where the malnutrition rate was recognized as the measure of hunger and poverty (Vir et al., 2014). During this period, global attention to public health problems shifted from poverty to malnutrition, applying a reductionist approach to achieve the Millennium Development Goals.

Following 2007, the long-term intervention strategies postulated in India's National Nutrition Policy began to lose their appeal, as indicated in consecutive government initiatives. In 2009, the World Bank identified 13 of the most cost-effective and feasible direct nutrition interventions based on cost estimation of nutrition programs in 36 high burden countries (Vir et

al., 2014). These direct supplementary interventions are recognized as evidence-based strategies in scaling up nutrition. The World Bank rationalized investment in specific nutrition interventions which assured the highest return. Supplementary nutrition programs for children under 2 years and pregnant mothers in selected high burden cities would eventually become cost-effective since they revealed better nutrition status within a short period of time within the target population. Moreover, nutrition supplementation was viewed as more feasible than land reform, market price control or rearranging the agriculture sector.

When the National Nutrition Strategy came into effect in 2017, child malnutrition had shown a significant reduction in some states, such as, however, in other states, like Bihar and Uttar Pradesh, the rate remained as high as 40% among children under 5 years. In the National Nutrition Policy (1993), malnutrition is viewed as an intricate problem related to poverty, agriculture and food systems. The national survey showed that, despite increased food production, malnutrition problems in India are prevalent in rural children and women living below the poverty line. Moreover, India faces major micronutrient deficiencies, known as "hidden hunger", due to lack of nutrition rich food like meat, fish, egg, pulses, fruits and vegetables (Vir et al, 2014).

India's National Nutrition Strategy (2017) begins with a brief description of existing intervention programs and the current childhood malnutrition scenario in India's priority states. The statistical parameters underpinning evidence-based studies are granted as the measure of the nutrition program's success. The study results show the rate of stunting, iron deficiency anaemia, low birth weight before and after the supplementation. In a severely malnourished population, nutrition supplementation brings improved nutrition status. These study parameters and intervention strategies are undertaken as the developing countries' policy standards. India's current

National Nutrition Strategy (NNS) adopted evidence-based nutrition interventions from the SUN framework (Garette, 2014) undermining food production and distribution incongruence.

The major macronutrient and micronutrient deficiencies mentioned in the National Nutrition Strategy (2017) are similar to the National Nutrition Policy (1993), except Zinc deficiency is added in the NNS. According to the National Family Health Survey (NFHS)- 4, Vitamin A supplementation covered 60% of children under 5 years of age. Iron deficiency anemia remains high among women, as evidenced by the fact that approximately 50% of pregnant women present as anemic. Iodine fortified salt is being used in 93% of households. Zinc is supplemented for diarrhea management in children following the Ministry of Health and Family Welfare guidelines. Control of diarrhea and other infectious diseases are prioritized in the NNS, as indicated in the initiatives focused on increasing safe drinking water, sanitation and hygiene coverage to reduce child mortality and morbidity rates from infectious diseases. Preschool children surveyed between 1975 and 2006 showed no changes in protein and calorie intake, and the rate of preschool children having adequate food had declined (Government of India, 2017, p.19), which suggests that dietary intake in children did not improve during this period.

In 2013, the Lancet series on Maternal and Child Undernutrition introduced the characterizations of "Nutrition specific" and "Nutrition sensitive" interventions. Referring to the Lancet series, the National Nutrition Strategy notes that nutrition-specific interventions include "adolescent and maternal nutrition, promotion of optimal breastfeeding and infant and young child feeding practices, food and micronutrient supplementation programs for young children and in pregnancy and lactation, prevention and management of severe acute malnutrition and disease prevention and management. Nutrition sensitive interventions reviewed included agriculture, social safety nets, early child development and schooling" (Government of India, 2017, p.30).

According to the National Nutrition Strategy, nutrition-sensitive interventions are focused on improving the basic determinants of nutrition status including agriculture, safety nets, public distribution systems, women empowerment, education, autonomy in decision making, women's literacy, control of resources, and the political economic structure. Developing countries like Bangladesh, Senegal, Brazil, and Vietnam have achieved better success in scaling up nutrition by integrating nutrition-sensitive and nutrition-specific interventions (Garette, 2014). India has also moved towards the implementation of multisectoral interventions. This suggests that the policy priority has shifted away from food security and market control and towards the convergence of all health-related services. The NNS mentioned a few aspects of the socioeconomic challenges discussed in the NNP in relation to nutrition-sensitive interventions. However, most of the indirect policy instruments from the National Nutrition Policy are ignored in the National Nutrition Strategy and nutrition-sensitive interventions are not addressed in the key intervention strategies.

With regards to the National Nutrition Mission (NNM), the flagship program of the National Nutrition Strategy, my research explores the nature and organization of funding to better understand the motifs and incentives of the NNM. A budget of 126.38 million US dollars has been allocated to the NNM (50% government and 50% IBRD or other MDB) (Government of India, 2019). "A budget of 126.38 million USD has been allocated to the NNM in the form of a public-private partnership arrangement (50% government and 50% IBRD or other MDB)" This statement implies the notion of private public partnership (PPP), where philanthrocapitalist and international organizations extract massive amounts of public money to invest in this project. The National Nutrition Mission is grounded on the assumption that "There is no dearth of schemes but lack of creating synergy and linking the schemes with each other to achieve common goal" (Government

of India Cabinet, 2017). Eventually, the flagship program is driven by the coordination and collaboration of the health schemes, instead of focusing on food and agriculture.

Although the Indian National Nutrition Strategy and the National Nutrition Mission have predominantly used the term "Convergence" as the key strategy in improving nutrition status (Mantri, n.d.), the NNS and the Operational Guideline for CAP did not provide any clear definition of convergence. The literature offers some insights in defining convergence as well as the success of convergence as per studies conducted by the International Food Policy and Research Institute (IFPRI) relevant to the NNS and NNM agenda.

The work of Kim (2017), for example, articulates a definition and framework for convergence to demonstrate the impact of an integrated multisectoral health intervention in two Indian states, Odisha and Madhya Pradesh. In this work, convergence is defined as synonymous with integration. The framework Kim (2017) proposes to assess convergence incorporates integration, collaboration, coordination and cooperation. A discussion paper by the International Food Policy and Research Institute (IFPR) defines convergence as "strategic and coordinated policy decisions and program actions in multiple sectors, such as agriculture, nutrition, livelihoods, education, and women's empowerment, to achieve a common goal of reduced child undernutrition." (Ved and Menon, 2012). Purnima Menon, a pioneer in the research of nutrition convergence strategy states that "we define "effective convergence" as the successful reach of programmes from relevant sectors that address the key determinants of undernutrition for the same household, same women, and same child in the first 1000 days" (Menon, 2019).

Agarwal and Kakkar (2019) mentioned the following seven tools of the National Nutrition Mission to implement the convergence action plan:

“Mapping of various Schemes contributing towards addressing malnutrition, Introducing a very robust convergence mechanism, ICT based Real-Time Monitoring system, Incentivizing States/UTs for meeting the targets, Incentivizing Anganwadi Workers (AWWs) for using IT based tools, Eliminating registers used by AWWs & Introducing measurement of height of children at the Anganwadi Centres (AWCs), Social Audits & Setting-up Nutrition Resource Centres, involving masses through Jan Andolan for their participation on nutrition through various activities among others”

Certainly, the primary tool adapted for implementing the mission is information technology. The study also found that the road map of POSHAN Abhiyan includes procurement of smartphones, tablets and growth Monitoring devices by States/UTs. & roll-out of ICDS-CAS (Common Application Software).

In India, maternal and child health and nutrition interventions are implemented through two government programs: the National Rural Health Mission (NRHM) and the Integrated Child Development Services (ICDS). Convergence between these two schemes is the main consideration in the Convergence Action Plan (CAP). Dev and Menon (2012) designed a framework for assessing the success of nutrition-related intersectoral convergence in different stages of policy formulation, implementation, monitoring and evaluation. Whereas Kim's (2017) framework attempted to assess the effectiveness of convergence by measuring the extent of coordination, collaboration and integration of the nutrition intervention planning and implementation at each level, Menon(Dev and Menon, 2012) recently conducted a study to examine the accessibility of nutrition-specific and nutrition-sensitive convergent services for the target population. In this study, indicators were created to measure the coverage of nutrition-specific and nutrition-sensitive interventions. The data were then combined to determine the co-coverage. The study found that

direct nutrition interventions had better coverage at 75%, whereas indirect or nutrition-sensitive interventions coverage varied from 1% to 16% by states. The study affirms that the effective integrated services are low due to poor convergence of nutrition-specific and nutrition-sensitive interventions. It is important to note that nutrition-sensitive interventions include the underlying causes of malnutrition, such as income, land, and agriculture. These results reveal the gap in the convergence action plan proposed in the National Nutrition Strategy and National Nutrition Mission.

India's National Nutrition Policy (1993) addressed these social determinants of health, as mentioned in its long-term intervention strategies. The recent Nutrition Strategy of India has shifted from the notion of challenging the root causes of malnutrition. Instead, the current nutrition intervention trend is to treat child undernutrition.

In this policy analysis, I have discussed the role of International Non-Government Organizations (INGO's) and their authority in the nutrition policy development of a third world country. Many intervention programs, in the name of development goals like the SDGs and MDGs, are being implemented in developing countries to maintain and protect globalization. Nutrition programs in this context are persuasive for several reasons: a) Nutrition interventions involve frontline activity in executing the fight against hunger. The programs work with children, the most vulnerable target population and also the future generation; b) Nutrition interventions potentially provide visible statistics showing significant nutrition status changes in the children who received the program compared to those who did not; this helps turn the result into evidence-based "best practices". Standard measures and indicators are used to monitor and evaluate the interventions, disregarding the country's specific context which plays an integral role in perpetuating the food and nutrition crisis; c) The money invested in the charitable feeding

program, nutrition supplementation, education, immunization, sanitation hygiene, etc. helps to relieve business leaders from the burden of paying a significant portion of the tax on their profit (Birn , 2017) .

During the colonial period, poor farmers' exploitation was coupled with British imperialism and local feudalistic oppression. In the globalization era, the oppression was persuaded by multilateral development bank and development agencies, maintaining a stable market and profit for the corporate world. The policy paradigm shift in India's recent nutrition strategy from the original nutrition policy is a great example demonstrating how globalization impacts a nation to be refrained from protecting citizen adapting the neoliberal economy phenomena.

Policy Implications and Concluding Remarks

India's poverty eradication policy used to be closely aligned with its National Nutrition Policy, which highlights the importance of land reform, land distribution, community and rural development for vulnerable populations, social security and subsidized education for marginalized groups (Mehta, 2003). In contrast, India's current food policy, food security act and agriculture policy are more focused on calorie needs, as evidenced by rice and wheat distribution through all food assistance programs. The Government's Minimum Support Price (MSP) is available for mostly grain production (Pingali, 2017). National-level initiatives promoting crop diversity to achieve nutrition security are rarely found in public policies. Despite the recommendations of policy experts, government support for protein, fruits and vegetables production remains inexplicable due to global food politics. India's National Nutrition Mission (citation) emphasizes convergence between all nutrition-sensitive and nutrition-specific interventions, while we have seen incongruence between India's nutrition, food and agriculture policies (Gutali, 2012).

India's child malnutrition rate varies across the different states (Pathak, 2011). Undernutrition is associated with disaggregated inequality and poverty prevailing in the states (Mazumder, 2010). Significant nutrition burden is found in Chhattisgarh, Bihar, Madhya Pradesh, West Bengal, Jharkhand Odisha, Maharashtra and Karnataka, which collectively account for more than 50% of undernourished children (Pathak, 2011). These central and eastern states are relatively economically poor and show less progress in reducing undernutrition despite economic growth and substantial nutrition initiatives undertaken by the Indian Government. These continued disparities are associated with chronic poverty, lack of state resources, geographical location (dryland and forest-based areas), scarcity of cultivable land and inadequate water supply to cultivate food, limited access to ICDS services and weak public distribution (Mehta, 2003 and Pathak, 2011). Chronic poverty is higher among casual agricultural labour, scheduled tribes and scheduled castes, and so the undernutrition rate is higher in these cases as well.

The Indian states of Odisha, Bihar, Chhattisgarh and Uttar Pradesh account for 45% of stunted children in India (Shrivastava, 2019). Small farmers of these states are also among the most affected population by the Green Revolution in India (Dhanagare, 1988). The population living below the poverty line increased, "ranged from 80 to over 84 percent in Bihar, Orissa, Uttar Pradesh, and West Bengal in 1967-68" (Dhanagare, 1988). Srivastava (2019) has shown that fiscal policies and budgets have impacted the nutrition status of these four states. Despite increases in the total state budget, the proportion of the budget allocated for direct nutrition intervention has declined in all states. Srivastava (2019) also demonstrated that Odisha has a higher per capita DNI compared to Bihar and Uttar Pradesh, which implies the reason behind better nutrition status in Odisha than the other two states. These study results seem to suggest that the target areas with a higher nutrition burden identified in the NNS require more than convergence in the system.

India's food distribution programs are predominantly dependent on staple grain. Subsidized food rationing is limited to wheat and rice, covering 75% of the rural population. Protein, fat and carbohydrates are the three essential macronutrients required for proper growth, development and maintenance of the human body. The country's Food Security Act covers the calorie needs of pregnant women, lactating mothers, children and adolescent girls, yet it fails to adequately address issues of chronic protein and micronutrient deficiency. Protein is a vital macronutrient for child growth. Animal protein is the best source of micronutrients for their increased bioavailability, and the human body better absorbs essential micronutrients like vitamin A, iron, folic acid etc. from animal protein than plant protein. Three main contextual features help explain India's persistent childhood undernutrition: First, a significant number of women and children are living in chronic poverty and food insecurity; second, an utterly grain-based public food distribution is promoted in national food and agriculture policy; third, a significant proportion of the population (38%) is vegetarian (Sawe, Sep 2019).

Among nutrition-sensitive interventions, agriculture is the most crucial sector determining nutrition status. Diversity in diet is the only way to meet macro and micro nutrient deficiencies through daily food consumption; this requires diversified crop production. Policy experts have urged for crop shifting agriculture to ensure sustainable nutrition upgrades. India's current agriculture policies and action plans are focused on the access and availability of rice and wheat. The 11th five-year action plan strategies proposed contract farming, small farmers' equity, and diversification, but nutrition was not a central focus. The need to grow protein-rich food items, fruits, and vegetables faster than cereal production was first recognized in the 12th five-year action plan (Dev, 2012). Description of the malnutrition problem, ICDS and PDS program are found only

in the discussion section; however, convergence with nutrition and agriculture is not considered in the action plan (Dev, 2012).

India's Public Distribution System (PDS) reinforces both consumers' welfare and producers' protection. The Government's Minimum Support Program (MSP) ensures a stable farm price by buying it from farmers, and the PDS ensures access to subsidized food for poor households (Pingali, 2017). This synergy in food and agriculture policy is seen in both rice and wheat production. However, a few states, like Karnataka, Tamil Nadu, and Chattishgarh, have added millets and pulses to the PDS (Pingali, 2017) to upgrade nutrition. Policy experts have recommended expanding these state-level diversified crop-neutral agriculture initiatives to the national level through the MSP.

Indicators of agriculture performance show a significant negative correlation with undernutrition indices, which indicates that agricultural production improvement is a powerful tool in reducing malnutrition across the rural population (Gulati, 2012). States with a low agricultural performance tend to have high undernutrition rates – examples include Madhya Pradesh, Chhattisgarh, and Rajasthan. Besides agriculture, women's literacy, child care practices, access to sanitation and health care services are strongly correlated with nutrition status (Gulati, 2012). Recent research suggests that a combined intervention focus on women's empowerment and agriculture was effective in improving nutrition outcomes in Bangladesh (Ahmed, 2020). Agriculture training and support for the vulnerable have been effective in combating micronutrient deficiency. For example, in Bangladesh during the 1980s, more than 3% of the rural population suffered from night blindness due to Vitamin A deficiency. Yet, after 1990, a combined intervention of homestead fruit and vegetable production, nutrition education, and support for livestock rearing, especially in the case of women-headed households, increased fruit and

vegetable intake among women and children. The study also reported 1.6% more fruit and vegetable consumption and 48% more egg consumption among children from households with gardens than those from households without a garden (Gutali, 2012).

While policy experts are urging for the expansion of the Government's Minimum Support Price (MSP) for diversified crop-neutral agriculture, India's farmers have taken to the streets to protest the new farm bill legislation. As per the recently passed farm bill, government regulated Agricultural Produce Market Committees (APMC) will be abolished and farmers will be required to sell their products to private buyers (WION, Sep 25, 2020). The abolition of APMC implies two threats to the farmers. First, farmers will not be able to get the fixed price they receive from selling their product to the government; second, these amendments might end the MSP's support for the farmers. India's recent move to agriculture sector privatization thus seems to be on track to worsen the nutrition status of the rural population occupied in agriculture sectors.

The challenges of nutrition upgrades are pertinent to the gap between public policies as well as understanding the nature of global food politics perpetuating the policy paradigm shift. Nutritionists and dietitians have acknowledged that the ICDS is doing a good job with its feeding program and access to integrated services. The context of global politics and neoliberal economic perspectives are often ignored in nutrition policy development. Policy analysts are aware of this shortcoming; hence, they have recommended a sustainable change in food production and distribution systems. Gustafson (2018), for example, outlines five recommendations for a sustainable food system. Besides promoting protein-rich plants and animal food production, the author suggests subsidizing plant proteins. Gustafson (2018) also urges the government to limit the farm lobby control in the agriculture sector and support small farmers by connecting them in the local market.

Pingali (2017) proposes several food policy redesigning suggestions related to nutrition security: 1) from the experience of Chattishgarh states and local farmers' perspectives, millet and pulse introduction in PDS would provide micronutrient rich diet for poor households; 2) "Crop neutral" agriculture policy is highly recommended to meet the greater need for non-staple food and crop diversity. Promotion of kitchen garden and community gardening effectively increases nutritious food consumption; 3) In the states where food supplementation and PDS are solely grain, an option for a cash transfer scheme in place of PDS would allow households to get food of their choice; 4) The transition from food security to nutrition security needs changes in existing political economy system to break the farm lobby and market nexus. Introduction of diversified food in the PDS system or cash transfer would reduce the power of wheat and rice producing farm lobby.

The role of philanthrocapitalism in nutrition intervention programs and the Convergence Action Plan have been previously discussed. Recent public-private partnership approaches in public policies pull down a significant portion of government money, while, at the same time, undermine the government's regulation of its national-level food production, marketing, and distribution. Although a nutrition sensitive food system seems highly ambitious in the present global food economy context, achieving a long-term sustainable nutrition status requires government support for a crop-neutral agriculture. Nutrition is not merely a public health issue; undernutrition is related to the socio-economic and political context. Change in the food production systems supporting local agriculture and local farmers is necessary for India's sustainable nutrition upgrade. This study concludes that nutrition security cannot be achieved without assuring social justice, equity and the nation's sole authority on the food system free from transnational corporate leverage.

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Glossary

ANC- Antenatal Care is care provided by health professionals during pregnancy.

Anganwadi - means “courtyard shelter” in Indian languages. Anganwadi centres provide basic health care activities including contraceptive counselling and supply, nutrition education and supplementation, and preschool activities.

ASHAs- Accredited Social Health Activists are community health workers instituted by the Government of India’s Ministry of Health and Family Welfare (MOHFW) as part of the National Rural Health Mission (NRHM). ASHAs are local women trained to act as health educators and promoters in their communities.

ANM - Auxiliary Nursing Midwife (ANM) is a village level female health worker in India. She is the first contact person between the health services and community. ANMs play a very prominent role in providing effective health care and facilities to village communities.

AWC - Anganwadi Centres Anganwadi is a type of rural child care centre in India started by the Indian government in 1975 as part of the Integrated Child Development Services (ICDS) program to combat child hunger and malnutrition.

AWW-Anganwadi Workers. Anganwadi workers support and execute activities of Anganwadi centres. They offer education about nutrition, especially among pregnant women, including how to breast feed. They also inform parents about family planning and child growth and development. They keep track of beneficiaries, especially those categorised as malnourished.

BMGF - Bill & Melinda Gates Foundation

ICDS - Integrated Child Development Service Scheme

IDA - Iron Deficiency Anemia

IDD - Iodine Deficiency Disorder

IFPR -International Foundation for Production Research

IMF - International Monetary Fund

IRRI - International Rice Research Center

MA- Ministry of Agriculture

MCA- Ministry of Consumer Affairs

MCAFPD)- Ministry of Food & Public Distribution

MDG - Millennium Development Goal

MFPI- Ministry of Food Processing Industries

MHFW- Ministry of Health and Family Welfare

MHRD-Ministry of Human Resource Development

MI&B-Ministry of Information and Broadcasting

MMA - Ministry of Minority Affairs

MPR-Ministry of Panchayati Raj

MRD- Ministry of Rural Development

MSD- Ministry of Skill Development

MSJE - Ministry of Social Justice and Empowerment

MTA - Ministry of Tribal Affairs

MWCD- Ministry of Women and Child Development

MWDS- Ministry of Drinking Water & Sanitation

MYAS - Ministry of Youth Affairs

NNM- National Nutrition Mission is a flagship program to track and monitor National Nutrition strategy.

NNP- National Nutrition Policy The first nutrition policy was drafted in 1993

NNP- National Nutrition Strategy

PEM - Protein Energy Malnutrition

PMMVY - Pradhan Mantri Matru Vandana Yojana is the Maternity Benefit Programme implemented by Government of India.

PNC- Postnatal Care is the care given to a mother and a new born baby from birth through 6 weeks of age.

POSHAN - Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India

PRI- Panchayat Raj Institutions Panchayati Raj is the basic unit of administration in a system of governance. India's Constitutional (73rd Amendment) Act 1992 came into force on 24 April 1993 to provide constitutional status to the Panchayati Raj institutions.

SDG - Sustainable Development Goal

SUN - Scaling Up Nutrition

UNDP - United Nations Development Programme

UNICEF - United Nations International Children's Emergency Fund

WB - World Bank

Appendix

Table1: Major Changes Observed in National Nutrition Policy and National Nutrition Strategies over 20 years

Category	National Nutrition Policy	National Nutrition Strategy	Observed shift
Document Analyzed	National Nutrition Policy, 1993	1.National Nutrition Strategy,2017 2.Operational Guideline for Convergent Action Plan	Focus changed from causes of malnutrition to access of integrated health care services
Definition of Problems	-Protein Energy Malnutrition (PEM) -Macro and micro nutrients deficiencies	-Stunting - Child malnutrition -micronutrient deficiencies (vitamin A, iron, and iodine etc)	No significant changes
Causes of Problem	Poverty	Food insecurity	No significant changes
Intervention Scopes			
Target population	1.Whole population	1.Targeted area selected based on prevalence of child malnutrition	Shift from Universal approach to means tested government program (distal to proximal)
Type of intervention	1. Short-term 2. Long-term	1.Nutrition Specific 2. Nutrition Sensitive	Change in terminology. Use of jargon adapted from UN body (Non-Government organization) mediated interventions are observed. Language of technocrats made the goal of the government policy implication complicated and difficult to understand.
Major Intervention strategy includes	Short term – Nutrition supplementation and immunization	-Charitable feeding program, -Rationing of grain based food -Subsidy on grain based production	Significant shift from upstream approach, addressing social determinants of health to downstream approach of combating childhood malnutrition.

	Long term - Public distribution system, land reform, health and social welfare, increase crop diversity, change in agriculture system and market control	- Community gardening	
Measures and indicators	Nutrition status	Nutrition status upgrade and access to integrated service	Not significant changes. Measures are focused on nutrition indicators
Key paradigm	- Green Revolution effect and crop Diversity - Land reform and fair resource distribution - Social Determinants of Health	- Food security - Food Assistance - Food and nutrition supplementation - Development Goal and Project implementation	Policy goal and objectives has changed from challenging neoliberal effects on food insecurity to accommodating and managing the effect of globalization.