

THE ECONOMICS OF EARLY NUTRITION: WHY THE FIRST 1000 DAYS MATTER

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Abstract

Early childhood nutrition has been agreed to be a crucial factor for the lifelong health and cognitive development, with a particular emphasis on the 'first 1000 days of life' which act as a critical window of opportunity for ensuring survival, shaping growth, enhancing learning and securing long-term health and development. These first 1000 days that last from a child's conception in the womb of the mother to its second birthday. Global evidence showcases how a failure to address the nutritional needs during these initial days can lead to irreversible consequences on the development of the newborn which might lead to increased vulnerability towards stunting, wasting and chronic diseases later in life. India continues to face persistent bottlenecks in executing its welfare schemes effectively, primarily due to budgeting deficits and poor resource allocation. The Right to Food has been guaranteed as a fundamental right—a right which is also recognised as being sacrosanct by international conventions. However, despite multiple safeguards and various schemes introduced by the Government, their effectiveness is constantly undermined due to budgeting inadequacies. India's spending on these schemes falls steeply short compared to the average recommended norms proposed by international standards. This paper intersects areas of law, finance and policy frameworks at the national level and integrates them to analyse their effectiveness in ensuring early childhood nutrition by drawing parallel comparisons with internationally defined standards. Furthermore, the paper critically examines the cost-benefit analysis for investing in early childhood nutrition by highlighting how proper implementation and investment can result in long term economic benefits. It connects major governmental initiatives aimed at achieving childhood nutritional goals to the Sustainable Development Goals to understand their significance in ensuring a better future for the children and the mothers. It also illuminates the key shortcomings hindering these schemes from realising full potential and underscores that these drawbacks have been acknowledged by international organisations, which emphasises the imminent need for systemic interventions to improve effectiveness and accountability. Lastly, it concludes by proposing few strategies that could help India to fulfil its constitutional obligations and aligning with globally benchmarked development goals of the children.

Keywords: first 1000 days, child nutrition, budget allocation, right to food,
Article 21

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Introduction

The nutrition provided to a child plays a crucial part in their development by determining various factors, performances, and outcomes that might be witnessed in their adult life. The consequences of undernutrition at this stage often results in irreversible stunting, impaired cognitive development, weakened immunity, and increases susceptibility to chronic diseases later in life. The Right to Food has received recognition in both national as well as international arenas where multiple provisions have been subsequently provided to safeguard these rights. Similarly, the well-being of a pregnant or lactating woman has been addressed via similar provisions, ultimately aiming to achieve the objective of a reduction in the health and development related issues that are currently plaguing multiple countries including India.

The concept of “First 1000 days” has been scientifically recognized as a pivotal factor in the future intellect and capabilities of a child (Cusick & Georgieff, 2016). This in turn, also impacts the quality of life that a child will experience once he or she reaches adulthood (WHO, UNICEF, & World Bank Group, 2018). Contrary to the common misconception, these days are accounted not after the birth of the infant but at the very onset of the period of pregnancy planning up to the second birthday of the child (UNICEF, 2017). Therefore, the overall health, well-being and nutrition of the mother is also extremely crucial at the three phases which include pre, during and post pregnancy stage.

The first step in ensuring the development of the child is to ensure that the mother is healthy and receives proper nutrition well before she conceives. The poor health of the mother directly impacts this development hence, it is important to ensure that the numerous schemes, programmes and safeguards that are provided to the citizens on paper are actually implemented. As when the pregnant women do not have adequate nutrition, they require supplements to compensate for the same, it is the duty of the government to ensure that even the most marginalized, disadvantaged sections of the society receive such supplemental nutrition.

In order to ensure that the mother and the child receive a positive environment to grow through adequate nutrition, the government needs to analyse the current ground realities and whether the schemes are being implemented or not. An integral part of doing so is the budget and how it is allocated and used. This also differs from State to State as each yields different results while also having

different budget allocation and strategies. The 2021 Global Food Security Index Report has successfully able to figure out the defects that exist in the current budget allocation system (Economist Impact, 2021). This data shows that despite multiple years since the advent of these schemes, India has still not been able to emerge as one of the top 50% of the countries with regards to the number of people being able to access a healthy diet.

Overview of the Problem Statement

Despite the critical importance of adequate nutrition during the first 1,000 days of life in determining not just the immediate survival but also the lifelong health and cognitive development of an individual, the public spending in the nutrition interventions has been considerably underwhelming. The system is marred by numerous shortcomings—both systematic and economic that hamper the effectiveness of these initiatives despite the Constitutional safeguard of the Right to food under the aegis of the very sacrosanct fundamental right of ‘right to life’. The issue of budgetary constraints which is further compounded high administrative costs, fund leakages and diversion into non-nutrition specific expenditures result in the inefficacy and consequential collapsing of services under already functional schemes such as Integrated Child Development Services and the Supplementary Nutrition Programme. This contention is supported by statistical data that compares the position of India in terms of nutritional inadequacy in comparison to other countries. As such, there is an imminent need to examine the extent and impact of these budgetary defalcations in India and proposing of mitigating strategies to expand and sustain the nutrition financing with respect to the most critical window for human growth and development as investing in nutrition during this period could yield the highest returns for the nation in terms of major health indices, cognitive development and long-term productivity.

Research Questions and Objectives

The key research questions are:

- To what extent are the current public fund allocations adequate to supplement the nutritional requirements of children during the first 1,000 days of life?
- In what ways do the budgetary inadequacies impact the quality and coverage of nutrition-specific and nutrition-sensitive services for children under two years of age as well as pregnant women and lactating mothers?

- What are the primary systematic and economic barriers and bottlenecks in hindering successful implementation of the frameworks targeting at first 1,000 days' nutrition interventions?

The objective of this paper is to critically evaluate the cost-benefit analysis of early childhood development, signifying the long-term advantages of proper implementation by the authorities. The paper aims to examine the extent of alignment between internationally recognised standards and Indian statistical data. It seeks to provide a nuanced understanding of why the current schemes and policies fall short in realising their full potential by highlighting the systematic, economic and implementational barriers.

The paper seeks to propose relevant recommendations to strengthen the Constitutional safeguards in consonance with the Sustainable Development Goals. It aims to highlight the existing societal disparities affecting equitable access to resources. The paper also investigate the reforms necessary to deal with the issue of inadequate budget allocation and to drive a meaningful change.

Research Methodology

The research combines doctrinal legal analysis with secondary data synthesis of the budget and expenditure data extracted from sources such as union and state government budgets, expenditure reports, analysis of nutrition and health dashboards available on government websites such as POSHAN tracker, HMIS, etc. The doctrinal analysis includes the examination of constitutional provisions including Article 21 and the Directive Principles contained in Articles 39 and 47 relating to nutrition and welfare, relevant statutes such as the National Food Security Act of 2013, judicial precedents including *PUCL v. UOI*, Sustainable Development Goals, and existing policy frameworks pertaining to right to food like ICDS, POSHAN Abhiyan, Pradhan Mantri Matru Vandana Yojana and Mid-Day Meal Scheme. The research also analyses secondary data and statistics from multiple government reports, international frameworks, policy reports and evaluations by global organisations and research institutions.

The Crucial Window of Development

The significance of these early days was first expressed by the Lancet report (2008) which stated that “Childhood development is a maturational process resulting in an ordered progression of perceptual, motor, cognitive, language, socio-emotional, and self-regulation skills” (Black et al., 2017). The report

advocated for societal responsibility towards this crucial phase that requires continuity of developmentally appropriate nurturing care of the young children. It further highlighted that “a staggering 43 percent of children under five years of age—an estimated 250 million—living in low and middle-income countries are at heightened risk of suboptimal development due to poverty and stunting” (Black et al., 2017). Due to this risk, these children as well as the mothers need enhanced care and nurturing which is dependent on various factors, nutrition being the most important one.

Furthermore, this impairment in development also results in several macroeconomic issues. The World Bank reports that the loss caused due to low productivity is approximately least \$1 trillion a year globally (World Bank, 2024). For every dollar that is invested in addressing malnutrition, there is an estimated economic return of \$23 in form of benefits. In case of businesses in low and middle-income countries, the annual productivity loss is estimated to be \$130 billion and \$850 billion (Chatham House, 2020). Malnutrition also increases healthcare cost while simultaneously lowering the national productivity which in turn leads to increased economic burden and loss of income in the families due to medical bills and expenses to be paid (WHO, 2024).

The cost benefit analyses of nutritional interventions in India have been estimated to be in form of a ratio of 19.4:1 (Joe & Kumar, 2020). This means that every single dollar spent can yield 19.4 dollars in return. Therefore, scaling up these programmes is a more fruitful option than to later remedy the aftereffects of malnutrition in the nation. This form of initial scaling up can prevent 6.2 million deaths of children below the age of 5 and approximately 980,000 stillbirths. This prevention translates to an estimated 2.4 trillion dollars in economic benefits globally (World Bank, 2024). The studies conducted by UNICEF in the year 2017 indicate that every 1cm increase in height of an adult is associated with 4% and 6% increase in the wages of men and women respectively (UNICEF, 2017).

The Lancet report further explained that there is a dire need for government interventions which includes providing various services, such as distribution of both adequate as well as supplemental nutrition for the mother and the child and ensuring responsive caregiving. These services can vary depending on the needs of the targeted demographic—such flexibility being quintessential in

addressing the diversity and differences amongst various countries. The lack of key nutrients and minerals will lead to adverse effects on the “learning capacity, behaviour, and the ability to regulate emotions.” It further states that most of the pregnant women do not intake adequate nutritional requirements until the later months of pregnancy. It suggests that women should ideally enter pregnancy while intaking optimum nutrition. The deficiencies caused by this results in various health complications in both the mother as well as the child.

As per UNICEF’s report in 2016, India comprised of one third of the world’s stunted children population (UNICEF, 2016). The World Health Organisation defines stunting as “the impaired growth and development that children experience from poor nutrition, repeated infection, and inadequate psychosocial stimulation” (WHO, 2015). They further elucidated on the impact of the first 1,000 days, stating that stunting in early life particularly in the first 1,000 days from conception until the age of two can lead to impaired growth and other adverse functional consequences on the child. These consequences include loss of productivity, low wages attainable in adulthood as well as adverse effects on cognition and performance in education. UNICEF also explains the goals that should be achieved for ideal first 1,000 days such as educating families, supporting mothers, enhancing the efficiency of nutrition programmes, providing special grants to eligible households as well as raising awareness.

Additionally, this period underscores the heightened vulnerability of the child’s developing brain to both diseases and nutritional deficiencies. Poor nutrition, therefore, does irreversible damage to the growth of the child’s brain thereby affecting education, intellectual capacity and future employment opportunities once these children reach adulthood (Martorell, 2017). Furthermore, lack of adequate nutrition may also result in irreparable damage to the overall health of the mother, making her more prone to health complications and diseases (Martorell, 2017). Therefore, in order to ensure health of the mothers and children, a demographic that contributes a significant portion of the Indian population, it is necessary to address the underlying problems pertaining to malnutrition amongst these groups.

Legal Imperatives

The Right to Food has been recognised as a part of the fundamental rights safeguarded by the Constitution of India under Article 21 (Constitution of India, 1950, Art. 21). It encapsulates the concept of living with dignity that has been upheld in myriad of judicial precedents while interpreting Article 21. The

case of *People's Union for Civil Liberties v. Union of India & Others* (2007), also commonly known as the “Right to Food case” successfully demonstrated the recognition of the need of adequate nutrition by opining that the right is not only legally enforceable and justiciable but is also inviolable.

The inclusion of the Right to Food as a part of Article 21 was also upheld in the case of *Chameli Singh vs State of U.P* (1995) in which the Hon'ble Supreme Court stated that “Food, shelter and clothing are minimal human rights” (*Chameli Singh v. State of U.P.*, 1995) Similarly the Apex Court, in the case of *Shantistar Builders v. Narayan Khimalal Totame* (1990), held that food, clothing and shelter are the very basic needs of a man, without which there exists no meaning in ‘life’.

In the case of *Francis Coralie Mullin v. Administrator, Union Territory of Delhi* (1981) as well as in *Re: Problems and Miseries of Migrant Labourers Food* (2020), the necessity of adequate nutrition was acknowledged as a key aspect and component of living a life with dignity.

These numerous judgements paved way for the emergence of various governmental initiatives aimed at reinforcing the right to food. Notable among them are the Wheat Based Nutrition Programme (WBNP) launched in 1986, the National Nutritional Policy (NNP) of 1993, and the Mid-Day Meal Scheme introduced in 1995. These initiatives reflect the government's commitment to the strengthening of the right to food, promoting nutritional development and ensuring food security. Further, these schemes were aligned to give effect to directions issued by the Supreme Court regarding the operationalisation of existing food related schemes effectively while also ensuring accountability in their implementation.

The National Food Security Act 2013 (NFSA) encompasses comprehensive and detailed provisions aimed at ensuring nutrition for both mothers as well as the children. Similarly, the Preamble of the Act clearly states that it is:

An Act to provide for food and nutritional security in human life cycle approach, by ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity and for matters connected therewith or incidental thereto (NFSA, 2013).

Section 5 of the Act deals with supporting the nutritional requirements of the children. Section 5 (1) (a) deals specifically with the age group of six months to six years and states that:

In the case of children in the age group of six months to six years, age-appropriate meal, free of charge, through the local anganwadi to meet the nutritional standards specified in Schedule II: Provided that for children below the age of six months, exclusive breast feeding shall be promoted (NFSA, 2013).

Section 6 entails dealing with malnutrition amongst children and states that “The State Government shall, through the local anganwadi, identify and provide meals, free of charge, to children who suffer from malnutrition, so as to meet the nutritional standards specified in Schedule II” (NFSA, 2013).

The Act also imposes a duty on the Government, both State and Central levels through the provisions of Section 7 as per which:

The State Governments shall implement schemes covering entitlements under sections 4, 5 and section 6 in accordance with the guidelines, including cost sharing, between the Central Government and the State Governments in such manner as may be prescribed by the Central Government (NFSA, 2013).

Chapter three of the Act enshrines that a person whose nutritional requirements are not being met through the provisions specified under Chapter 2 has the right to receive food security allowances. The Act further goes on to talk about the need for transparency and accountability, grievance redressal mechanism as well as the provisions of other special groups.

As per the Act, both the Central and State Government as well as local authorities have certain legal obligation. Section 22 explains that the Central Government should allocate, procure and transport food grains along with their duty to provide financial assistance and maintain fair price shops. The duties of the State Government are included in Section 24 which explains that they need to look after the implementation, monitoring of the schemes. The State Government should also ensure food security while following the guidelines provided by the Central Government. It is their responsibility to look after proper storage and delivery of the food grains. As per Section 25 and 26, the local authorities need to look after proper implementation in their respective areas while also performing any additional duties as prescribed by their respective States. The entire composition of the Act is successful in at least showing the importance and recognition that food security, nutritional requirements, living with dignity and the right to food requires.

The Integrated Child Development Scheme (ICDS) aims to strengthen the essential development of children, especially at the grass-root levels while “addressing malnutrition, health and also development needs of young children, pregnant and nursing mothers” (Ministry of Women and Child Development (MWCD), Government of India (GoI), 2017). Their objective calls for a focus on children under the age of three. The scheme promotes decentralised and community-based care by enhancing integrated training at Anganwadi Centres while calling for increasing participation and public awareness. The four key components include “Early Childhood Care Education & Development (ECCED), Care & Nutrition Counselling, Health Services, Community Mobilisation Awareness, Advocacy and Information, Education and Communication” (Ministry of Woman and Child Development (MWCD), Government of India (GoI), 2017).

The Public Distribution System, now referred to as the Antyodaya Anna Yojana deals with distribution of food grains at an affordable pricing to tackle their scarcity. It is only supplemental in nature and focuses on the people falling below the poverty line of the country. The Poshan Abhiyan primarily focuses on improving the nutritional status of children, adolescent girls, and women who are pregnant or lactating. The objectives of the Abhiyan deal with tackling stunting, anaemia, low birth weight and malnutrition (WCD, Haryana 2025). These key objectives align strategically with the core of the issues that the framework of the first 1000 days seems to tackle. Preventing and reducing the nutritional concerns during the formative years will ultimately bear fruits in ensuring the well-being of the children and their mothers in the longer run. The Mid-Day Meal scheme, which is a vital initiative for improving the nutrition, education and social equity in India is also now a part of the Poshan Abhiyan.

The National Human Rights Commission comprises of a Core Group which deals with the Right to Food. Its ‘Advisory on Right to Food Security and Nutrition’ mentions how “The National Food Security Act 2013 (NFS Act) has shifted the right to food from the domain of benevolence of the State to that of the right of citizens” (National Human Rights Commission, 2021).

The Advisory, while stating certain recommendations for ICDS, suggested that the functioning of ICDS such as supplementary nutrition, referral services, health services and monitoring growth should be strengthened. They also made several recommendations specially pertaining to nutrition including suggestions given relating to the PM POSHAN (Mid-day meal scheme) by stating that “The mid-day

meal must include food items of high nutritional value, e.g., eggs, milk products, fruits, etc. The nutritional standards should be strictly enforced” (National Human Rights Commission, 2021). They also emphasised highly on the children with ‘Severe Acute Malnutrition’ (SAM) by suggesting that they should be properly identified and provided additional nutrition regulated by proper monitoring and rehabilitation in case of those whose living conditions were extremely vulnerable.

The importance of nutrition and the right to food have received worldwide attention via numerous conventions. Article 25 of the UDHR states that:

Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control (UDHR, 1948).

This idea remains in consonance with that of the Indian Courts while interpreting that right to life means living with dignity, not a mere animal like existence (*Maneka Gandhi v. Union of India*, 1978). The Right to Food is both a Fundamental Right when looked at with the perspective of the Indian judiciary as well as a Human Right as per international norms and ideas. The Preamble of the Convention on the Rights of the Child addresses the need to protect and ensure harmonious development of the child and how this requires co-operation of the countries in order to improve the living conditions of the children (UNCRC, 1989).

Article 27(1) of the clause mentions the recognition of the standard of living of the child that needs to be taken into account for their overall development. The third clause states:

States Parties, in accordance with national conditions and within their means, shall take appropriate measures to assist parents and others responsible for the child to implement this right and shall in case of need provide material assistance and support programmes, particularly with regards to nutrition, clothing and housing (UNCRC, 1989).

It is evident that India has introduced multiple such programmes to fulfil the same objective that this article is trying to signify. The inclusion of the word ‘nutrition’ again depicts the pivotal role it plays in both ensuring an adequate

standard of living as well as the well-rounded development. To understand how successful these statutes and judgements have been in ensuring these rights, it is important to look at the statistical data that is provided by the Government and analyse the pattern and trends within such data. This is imperative in determining the extent to which these safeguards are actually being exercised and implemented.

India's Budgeting Landscape

While comparing the cost for meal per child, per day to the Indian data and international recommendations, it is evident that there exists a need to relook upon the budget proposed in India to ensure adequate nutrition and food security. The Department of School Education & Literacy (2024) states in their data that the average cooking cost per child receiving primary education is rupees 4.97, this cost includes the cost of oil, ingredients and fuel in the Poshan scheme.

Furthermore, the World Bank's 'Food Prices for Nutrition DataHub' shows the cost of a healthy diet in India for the year 2024 was \$4.07 which is approximately rupees 355 per day (World Bank Group, 2025). If it is divided by the norm of 3 meals per day, then the cost will be approximately rupees 118.33 this too is an ideal situation many are not able to access three square meals a day. If we compare the data suggested by World Bank to that of the one suggested by the Department, it is evident that there is a huge gap in the cost being spent even if we include the factor pertaining to lesser costs for children.

In the same datahub, 'The State of Food Security and Nutrition in the World (SOFI) 2025' found that 40.40% of the population of India is unable to afford a healthy diet (World Bank Group, 2025). This calls for a need to reevaluate the concept of a healthy diet in India and analyse how it remains different from the international standards.

The NITI Aayog's 'Evaluation of ICDS Scheme of India' sheds light on these issues pertaining to financing. They mention about the report released by the Planning Commission in 2011 which found that approximately 60% of the allotted funds are not used for 'Supplementary Nutrition Program' (SNP) (Joe et al., 2020). The report further highlighted that there is an unattainable demand for food products like milk and eggs which cannot be met due to low unit costs for the program according to the norms of ICDS. The coverage for SNP was only to the extent of 46% for the children falling in the age group of 0-71 months and 37% for women who were pregnant and lactating (Joe et al., 2020).

Both these categories are the main beneficiaries of the SNP as they require this enhanced nutrition owing to their vulnerable and critical health state. Despite this, not even half of the total target population is able to avail the services that were meant for them.

The data sourced from the 'Ministry of Women and Child Development' for the year 2018-2019 for the ICDS scheme shows that 47% of the entire budget goes to SNP, still the coverage for the same is low as showcased by the data mentioned above. According to the same data, the State wise budget shows that 51% of the budget for Bihar goes in SNP but the NITI Aayog mentioned that SNP coverage has reduced primarily in this State (Joe et al., 2020). Thus, Bihar being one of the States that allocates majority of its fund to SNP has experienced a reduction in coverage despite being one of the top five States in terms of budget share. As per this data, the budget per beneficiary per year for Bihar is 4000 rupees.

The field visit to states conducted by the NITI Aayog found that the budgetary allocations are inadequate vis-à-vis the expectations and requirements of the state. Poor utilization of infrastructure funds/training funds was reported in the states visited. In many cases, the budget is deemed adequate to maintain status quo, but as we approach the grass root level, we see that this is not the case. Rules, regulations and norms for flow/release of funds for infrastructure development need to be reviewed and streamlined and there is scope for convergence with the Gram Panchayat Development Plan (GPDP) (Joe et al., 2020).

The same visit also led to the conclusion that many states rely majorly on NGOs as their source of funds which is problematic as it is not a permanent or definite solution due to the possibility of their funds being withdrawn at any given moment. They also found that inadequate funds go towards focusing on the targeted beneficiaries of ICDS and the occurrence of leakages are also quite high. They further state that "There are no contingency funds made available to the functionaries, due to which they often have to pay out of their own pocket. These reimbursements are also severely delayed, and this demoralises the staff" (Joe et al., 2020). The inability to properly use funds was found to play a major role in the drawbacks experienced in the context of lack of proper implementation of the scheme.

NITI Aayog explains that:

Clearly, the average daily expenditure per beneficiary under the Supplementary Nutrition program is quite low. The actual expenditure on salary

of ICDS functionaries is very high which leaves very meager amount for other key components of the scheme. Additionally, the funds meant for ICDS is being parked in non-permissible activities such as civil deposits and personal ledger accounts, which are practiced beyond the scope of monitoring and assessment frameworks under the SNP. Consequently, the inadequate Public Spending Efficiency (PSE) has led to lapses in successful implementation of the scheme (Joe et al., 2020)

Similarly, while analysing the budget allocation and estimates for the Poshan Abhiyan, the ‘Centre for Budget and Governance Accountability’ found that the amount allocated “reflects the Government’s commitment to addressing malnutrition in India, however an inflation adjusted figure reflects inadequate allocation towards the nutrition related issues that have been highlighted in the survey reports of NFHS-5” (Kundu et al., 2023).

Bureaucratic inertia plays an integral part in causing systematic delays in supply of facilities, supplements and food which results in resource leakage and diversion of resources from vulnerable population (Gauri & Mohan, 2012). Furthermore, Saini et al. (2022) highlights the data integrity issues and inaccuracies which prevents evidence-based planning of schemes and results in underperformance and ensures that these flaws in design of the scheme remain unaddressed.

Critical Intersection

According to the data collected by the Global Hunger Index, hunger scores of India and Malawi were stated to be ‘serious in nature and was estimated to be 28.5 (*Global Hunger Index 2024: How Gender Justice Can Advance Climate Resilience and Zero Hunger*, 2025). This was quite large in comparison with other BRICS countries which had a single digit score. The neighbouring countries too had a better result in GHI score.

The key findings show that “Malnutrition was the predominant risk factor for death in children younger than 5 years of age in every state of India in 2017, accounting for 68.2% (95% UI 65.8–70.7) of the total under-5 deaths” (Swaminathan et al., 2019). They further found the prevalence of and the impact of multiple deficiencies and diseases with their respective percentages such as child stunting (39.3), child underweight (32.7), anaemia in children and women (59.7 and 54.4 respectively), child wasting (15.7) and low birth weight (21.4)

(Swaminathan et al., 2019). Moreover, as per the Institute for Health Metrics and Evaluation, malnutrition has played a role in approximately 7 lakh deaths out of 1 million deaths of children under the age of 5 in the year 2017.

As per the ‘UNICEF / WHO / World Bank Group Joint Child Malnutrition Estimates’ for 2025, the Percentage of children below the age of 5 which have been affected by stunting in Southern Asian region comprising India is 31.4 which is second largest, right after Middle Africa. Similarly, it is the highest when it comes to wasting amongst children (UNICEF / WHO / World Bank Group, 2025).

According to Singh et al. (2023), the percentage of children born with low birth weight between 2005-2006 was 15.6 percent which declined to 14 percent in 2015-2016 but again rose to 15 percent in 2019-2021. This pattern of an initial decline followed by a concerning reversal undermines the primary objectives of the Government. A similar trend was also observed in case of mothers receiving adequate nutrition and antenatal care, despite the introduction of newer and more robust schemes.

Gupta and Gupta (2019) found that only eight percent of the children of age group 0 to 71 months which belonged to SC/ST category received services from Anganwadi Centres in Bihar. The underlying casteism along with the historical inequalities and marginalisation is still ingrained in the society and more evidently in rural areas. The data also suggested that children belonging to the SC/ST communities were also more prone to stunting (67%) and wasting (33%) and the overall malnutrition was much higher amongst the women and children of these communities (Gupta & Gupta, 2019).

The World Health Organization (WHO) defines food security “as a situation when all people at any times have physical and economic access to sufficient and nutritious food that meets their dietary needs and food preference for an active and healthy life” (World Bank Group, 2024). Balanced meal as well as essential nutrients are required to prevent the chances of malnutrition and other deficiencies that might become chronic in nature.

Food security plays a pivotal role in ensuring nutrition but as per the Global Food Security Index, 2022, India overall ranks 68th out of 113 countries whereas countries such as Vietnam (46th), Indonesia (63rd) and Thailand (64th) have been ranked better (*Global Food Security Index (GFSI)*, n.d.). India’s rank

in availability is lower than Nepal (42nd and 13th respectively) and its rank in affordability (80th) is lower than neighbouring countries like Sri Lanka (74th), Pakistan (75th), Myanmar (72nd) (*Global Food Security Index (GFSI)*, n.d.). Such data is alarming as it signifies that despite the initiatives made, the problem of availability and affordability of food persists in India and India's overall ranking by not even emerging in the top 50% of the country calls for a need of better implementation, enforceability, revision of schemes and monitoring.

Malnutrition in India is driven by complex social determinants, a study conducted in Uttar Pradesh discovered that the marginalised groups and communities are significantly more prone to malnutrition issues (Mishra & Singh, 2023). Moreover, Mhamane & Ramanathan (2022) discovered that countries with lower female literacy experience more prevalence of malnutrition. The study further explains how the existing gender disparities also play a role in exacerbating malnutrition as female children born after the male child are more likely to be malnourished. This pattern was also observed in cases where the family was unable to have a male child, the female children of such family were more likely to be neglected.

Overseas Development Institute reported that India's malnutrition rates are high despite the existence of comprehensive policy frameworks due to lack of "horizontal coordination" and "siloed, bureaucratic vertical articulation" within the departments (Mohmand, 2012). Lack of Horizontal coordination refers to the lack of joint planning or budgeting whereas weak vertical articulation refers to weak implementation and bureaucratic intervention. The paper further explains that malnutrition is not an issue that is prioritised in politics, it has not been able to emerge as a primary electoral issue.

The Cost of Inaction

After taking into account the data from reports, it is evident that child malnutrition and deficiencies among both women and children continue to prevail despite the fundings received by governmental schemes. Grantham-McGregor et al. (2007) found that stunted children are more likely to enrol late in schools and are also more likely to receive lower grades than the non-stunted. Their cognitive development takes a setback, and studies conducted show that it also results in poorer general knowledge, academic performance and literary among adolescents who were malnourished during the initial days of their lives.

The report explains that poor development of a child also has economic consequences, it leads to the probability of earning lesser wage. This is directly linked to the disadvantaged children receiving lesser education and poverty, stunting and lack of development due to malnutrition that plays a crucial role in classifying whether the early years of a child have been fruitful in shaping their adolescent and adult life (Grantham-McGregor et al., 2007). The report mentions how stunting due to malnutrition leads to children paying less attention in classes and scoring less in subjects that are part of the basic education curriculum like math and reading.

The reason behind is the logic that a child acquires the basic of learning as well as social skills in these early days, these skills later act as foundations on which further abilities of a child is strengthened. Taking care of the mothers and the child in these early years is far more efficient and cost effective than interventions to remedy the deficits. Neglect during these days results in the vicious cycle of poverty to continue to run through successive generations.

Moreover, lack of implementation, distribution and management of the schemes will contradict the sustainable development goals that India recognises as an integral part in the formulation of their policy framework. Sustainable Development Goal (SDG) 2 (United Nations, 2015) calls for 'Zero Hunger', it further talks about improved nutrition, food security and affordable food prices in order to address issues such as anaemia in women and stunting and wasting in case of children below the age of 5.

SDG 3 (United Nations, 2015) talks about 'Good Health and Well-being', this too is directly linked with nutrition which plays a pivotal role in ensuring the health and well-being of children and mothers. The goal sheds a light towards maternal mortality rate, chances of which might increase due to improper care and nutrition. The PDS focuses on the economically marginalised sections of the society as they have poorer access to food grains to fill their dietary requirements and SDG 3 calls for reduced inequalities. Inequality in the form of lack of access to better healthcare and nutrition gives rise to lack of opportunities and proper development once the child grows up.

Conclusion

The first 1000 days act as an irreversible window for the child's development; despite this, India's fiscal commitment remains inadequate in nature. While more schemes are being introduced and expanded, problems like

underfunding, delays and lack of implementation showcases neglect towards the mothers and children of the country. Leakages, lack of funding, uneven state performance undermine the objective that these schemes seek to attain. These financial inefficiencies result in higher risk of diseases, reduced income, irreversible cognitive loss and consistent state of poverty and inequality. The policy architecture is not the primary problem; the already existing schemes are quite robust in nature in upholding the legal and judicial principles. The National Food Security Act has transformed these safeguards into legal rights, the rights that were recognised by cases like PUCL.

But mere policy framework is not sufficient in tackling the issues. While these show commitment towards the SDGs, it is the proper implementation that results in an actual change. Lok Ayukts (Ombudsman institutions) can play a key role in monitoring proper execution and investigating corruption. They can also ensure that the authorities are held accountable for leakages of funds. These institutions should be empowered to effectively check the functioning as well as utilisation of funds. Whistleblowers can be instrumental in exposing inefficiencies, misuse of resources and corruption at grass root level. This will enhance the transparency and accountability of the system.

A separate budget needs to be allocated to factors such as transportation and salaries that make up majority of the source of expenses. A focus needs to be on building up the capacity of infrastructures to obtain optimum results.

A multi-faceted approach focusing on institutional reforms and community empowerment calls for a shift from top-down to a decentralised approach where local level authorities can act as key drivers of change. The service delivery mechanisms need to be more transparent and effective in contrast to the current system of underreporting and inefficiency. A systematic change is required that targets the core social barriers such as gender disparities, literacy and awareness issues and caste-based discrimination.

If the current scenario remains stagnant, the country will not be able to achieve these Sustainable Development Goals, at least not entirely. While the existence of rights, schemes and programmes signifies the effort, at the end of the day it is the implementation and the utilisation of the funds and resources which determines whether or not there will be a substantial change in the difficulties that large amount of people currently face.

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