



## Policies for Improving **Nutrition Status** of Migrant Children of **Construction Workers** - The Case Study of Bengaluru City

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The last two decades have seen a sharp and steady expansion in the process of urbanisation, and a corresponding increase in urban infrastructure along with urban migration to support the growing needs of the urban economy. This, among others, has resulted in the rural-urban divide and class differences within the urban structure, specifically among informal and formal sectors.

One of the important segments of the informal economy within the formal structure is related to the construction sector. Its share in country's GDP is almost 7 per cent and its contribution up to 12 per cent employment in all-India level. The sector is also known for absorbing the largest proportion of rural workers' surplus from agriculture due to chronic poverty, deficit rainfall, an inability to farm, loss of land and other factors. In the process of migration from rural to urban areas, the children are the most affected as many remain out of school, are forced to drop out and some become vulnerable to work as child labour due to the seasonal mobility of their parents. Thus, mainstreaming these children in the development process is a big challenge in attaining the goal of universal primary education and inclusive growth. Migration has implications on their health, safety, development, and education<sup>4</sup>. Quite apparently, there has been little research on the issues related to the health, safety, development, and well-being of migrant construction workers' children from the nutrition perspective.

Further, there is an absence of a well-thought-out system to take care of these children at the work sites despite the Building and other Construction workers (Regulation of Employment and Conditions of Service) Act, 1996, which stipulates that if more than 50 female

workers are employed, rooms should be provided for the use of their children. According to the Act, these rooms are supposed to be suitably large, well-lit and ventilated, clean and sanitary and under the charge of women trained to care for young children, but builders find various ways to get around these requirements. Because of their family's extreme poverty, sometimes mothers go back to work a few days after delivery and in due course of time, small children are left to fend for themselves and are wandering around the site all day long. Further, migrant construction workers' children are denied access to local Anganwadis<sup>5</sup> services because they don't have Aadhaar and ration cards, plus ancillary documents (Kadidal, 2019). One consequence of the lack of access to Anganwadis is malnourishment among migrant communities.

In this background, the ISEC research team carried out a study (between August and November 2019) to explore the situation of the migrant construction workers in Bengaluru city, with special focus on the health and nutrition of construction workers' children. The respondents of the study were migrant (adult) construction workers (for collecting household profile, outline the kind of scheme availed by them and kind of issues encountered while availing such benefits), children of 0-5 age group (for sketching the nutrition status of children as per WHO estimate). A total 300 households were interviewed across 10 locations. There were 560 children between the age groups of less than one year to 18 years surveyed for the study. Children within the age of 5 years<sup>6</sup> were considered for nutrition analysis as per standard practice, whereas children up to 18 years of age were considered for education. Among the children surveyed, 56 per cent were boys and 44 per cent were girls.

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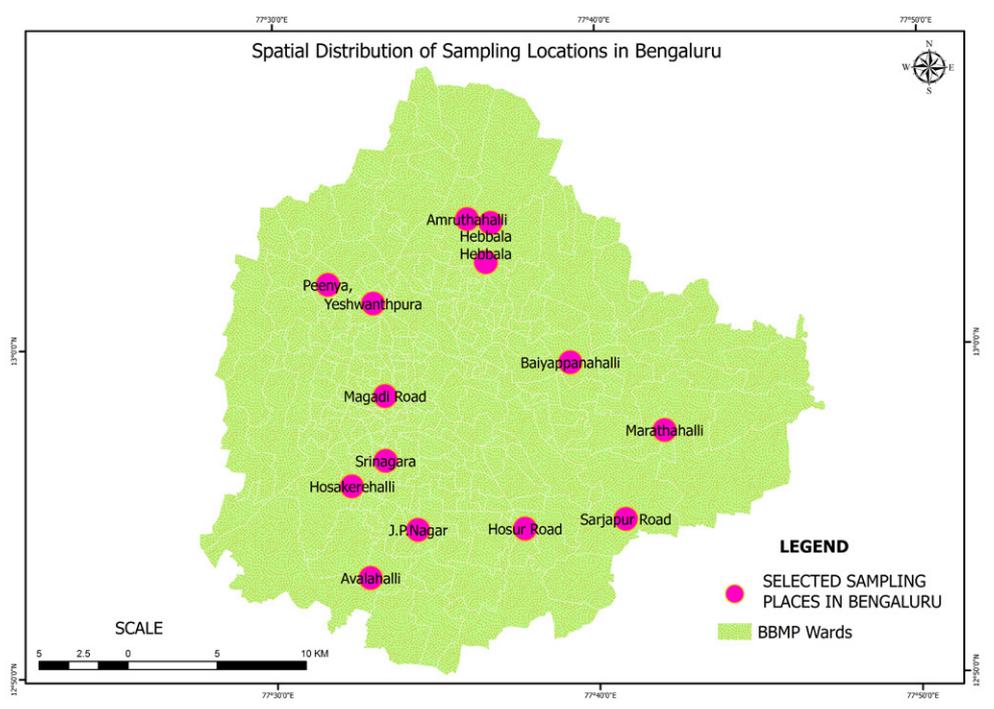
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<sup>4</sup> See for detail: Orellana et. al. (2000), Edwards and Ureta (2003), Cordova and Ernesto (2005), McKenzie and Rapoport (2006), Mobile Creches (2008), Pottinger (2010), Ratikanta (2012)

<sup>5</sup> Anganwadi is a type of rural child care centre in India. They were started in 1975 as part of the Integrated Child Development Services program of the Indian government.

<sup>6</sup> Kindly note that it is the standard practice followed (both at NHS estimation and WHO) to explain the nutrition status of children aged between 0 to five years, unless the focus is on school going children.

**Fig. 1. Spatial distribution of sampling locations in Bengaluru**



### Study Approach and Key findings

Food and nutrition security are typically measured in the literature through availability, accessibility and absorption capacity. However, availability and accessibility are useful to capture the household food security whereas the study of nutrition status under absorption capacity is a useful indicator for assessing intra - household food security. Thus, of late there has been a systematic shift in explaining the status of food security from mere availability and accessibility to the nutrition status of a household. Since the focus of this study is children within a construction worker's family, we relied on the nutritional parameter to assess their status.

The most accepted indicator of nutrition status are the anthropometric measures, which highlight height for age, weight for height and weight for age. Stunting (**Height for age**) refers to a low height for age indicating chronic hunger. Chronic malnutrition is an indicator of linear growth retardation that results from failure to receive adequate nutrition over a long period and may be aggravated by recurrent and chronic illness. Wasting (**Weight for height**) is an age independent measure referring to the ratio of weight to height. This indicates a recent failure to receive adequate nutrition and may be caused by diarrhoea and/or any other acute illnesses. **Weight for age** refers to weight that is less than expected for age due to insufficient food or illness and is the commonest indicator used in measuring malnutrition in children since their weight changes significantly with age unlike for adults. This condition can result from either chronic or acute malnutrition, or both<sup>7</sup>. These

anthropometric measurements of children in the study area are calculated using the WHO guidelines<sup>8</sup>. The children are classified as stunted, wasted, and underweight depending upon the Z-score value which was calculated using WHO Anthro Software<sup>9</sup> (see table 1). A total of 277 children participated in the study, in which boys and girls accounted for 54.2 and 45.8 per cent respectively. The age-wise distribution among boys and girls indicate (see table 2) maximum participants (24.5 per cent) belonged to age four.

**Table 1: Most common anthropometric indicators to assess child nutrition status**

Indicators	Value
Stunting	Height-for-age < -2SD
Severe wasting	Weight for Height < -3 SD
Wasting	Weight for Height < -2 SD
Overweight	Weight for Height > +2 SD
Underweight	Weight for age < -2SD

Source: WHO, 2006

**Table 2: Age distribution of children**

Age in Months	Number of Children
0-12 months	58 (20.9%)
13 -24 months	41 (14.8%)
25 - 36 months	59 (21.2%)
37 - 48 months	68 (24.5%)
49-60 months	51 (18.4%)
<b>Total</b>	<b>277</b>

Source: Based on Primary Survey, 2019

<sup>7</sup> World Health Organisation. The use and interpretation of Anthropometry - Report of WHO Expert committee. WHO Tech Rep Series 854. WHO, Geneva. 1995.

<sup>8</sup> World Health Organisation. Multicentre Growth Reference Study Group: WHO Child Growth Standards: Length/Height-for-Age, Weight-for-Age, Weight-for-Length, Weight-for-Height and Body Mass Index-for-Age: Methods and Development. Geneva: World Health Organisation; 2006.

<sup>9</sup> version 3.2.2, 2011, Department of Nutrition, World Health Organisation, Avenue Appia 20, 1211 Geneva 27, Switzerland.

The results presented in table 3 indicate the presence of the double burden of malnutrition (DBM) in the study area. On the one hand, stunting, which explains the chronic under-nutrition in the study area was around 11.2 per cent with hardly any incidence of wasting i.e., acute under-nutrition. On the other hand, the higher incidence of overweight was observed (71.8 per cent)<sup>10</sup>. This figure challenges the existing notion wherein malnutrition is always used in synonymous with under-nutrition.

Such an emerging trend could be largely because of the changing landscape of nutrition intake due to changes in life style, easy access to processed foods, lack of sanitation, lack of physical activity due to easy access to other forms of entertainment among children and so on<sup>11</sup>. In fact, our study area showed use of processed foods like ready-to-eat noodles, chips and biscuits as rampant.

Any attempt to address the issues surrounding DBM will also facilitate to achieve the Sustainable Development Goals (Goal 2 and Target 3.4) and the Commitments of the Rome Declaration on Nutrition, within the UN Decade of Action on Nutrition. This calls for thinking beyond conventional measures to tackle the problem. Specifically, both parents and children need to be better informed about the daily nutritional requirement of the body and the proactive role of the Anganwadi centre in monitoring the food habits of young children. Because, any intervention at an early age not only helps in reducing the double burden of malnutrition at an early age but also prevents adulthood obesity and the related consequences of non-communicable diseases.

Across gender, obesity/overweight is observed more among boys (41 per cent) followed by girls (31.6 per cent). Across occupation category, the incidence of DBM is higher among unskilled labour families. Across caste, ST followed by OBC household children reported a higher incidence of nutrition problem. Further, in our study area, we found that only 24.3 per cent of children were immunised at regular intervals, 7.3 per cent were not given any despite having information on vaccine whereas 68.3 per cent were not given because of lack of information, which exposed them to various health challenges in their growing years (Table 4).

**Table 4 Immunization at regular intervals**

Immunization of child at regular interval	
Yes	24.3
No	7.3
Not aware	68.3
Total	100

Source: Based on Primary Survey, 2019

The nutrition status is shaped by the food habit, which in turn influenced the health status of the population. In this context, we have attempted to understand the household's or parent's view on the food given at the Anganwadi centres for their kids. Around 44 per cent of the parents were reporting nutritional substitutions provided to their child in Anganwadi centres. Among the children who are going to Anganwadi centres and schools, 52 per cent received food (37.3 per cent from mid-day meal and 14 per cent from Anganwadi centres) and 1 per cent were unaware of whether or not the child had food at school). Out of 52.3 per cent children who are having food at schools, 47 per cent of the parents felt that the food given was nutritious. Regarding the quality of the food, 47 per cent of the parents felt that it was good and 4 felt it was satisfactory. The main foods supplied were Khichdi, Pongal, Rajma rice and morning snacks like Chapathi, green gram mash and eggs.

With respect to the health status of children, in the past one year, 48 per cent of the children of construction workers suffered from ailments like fever, cold and cough, which perhaps could be attributed to the exposure to dust in the construction places. This is followed by diarrhoea (21 per cent) due to contamination of water. With respect to frequency of illness, 58 per cent of the children experienced illnesses two to three times in the past year and 32 per cent of the children reported illness only once in the past year.

Poor hygiene and sanitation (94 per cent) followed by poor drainage facilities (5.3 per cent) are reported as major reasons for the health issues affecting the study area. Surprisingly, most of the respondents (90 per cent) preferred private healthcare services over public healthcare services though the medical expenditure of a household on private healthcare services was higher than that on public healthcare services.

**Table 3: The status of nutrition of construction workers' children in the study area (in percentage) (N=230)**

Indicators of Nutrition Security	Overall	Gender		Occupation			Caste					Religion			
		M	F	Skilled	Unskilled	Others	SC	ST	OBC	GENERAL	Others	Hindu	Muslim	Christian	Others
Stunting	31 (11.2%)	15 (5.4%)	16 (5.7%)	8 (2.9%)	16 (5.7%)	7 (2.5%)	0 (0%)	14 (5%)	10 (3.6%)	0 (0%)	6 (2.1%)	20 (7.2%)	7 (2.5%)	4 (1.4%)	
Overweight	199 (71.8%)	114 (41%)	85 (30.6%)	59 (21%)	91 (32.8%)	49 (17.6%)	74 (26.7%)	8 (2.8%)	84 (30.3%)	3 (1%)	30 (10.8%)	153 (55.2%)	21 (7.5%)	6 (2%)	19 (6.8%)

Source: Based on Primary Survey, 2019

<sup>10</sup> Also refer to Appendix figure 1 and 2

<sup>11</sup> See for detail: Uustialo et al (2002); Mendez and Popkin (2004); Chopra (2004)

## Policy Suggestions

### Thinking beyond conventional parameter of assuring nutrition security

Conceptually, food security by definition is always tagged with availability, accessibility and absorption specific criteria. Of late, studies have supported the prevalence of the double burden of nutrition (DBM), which is the new phenomenon of overweight and malnutrition existing together. Among others, the prevalence of obesity is associated with the changing landscape of nutrition intake due to changes in lifestyle, easy access to processed foods, lack of sanitation, lack of physical activity due to the easy access to other form of entertainment among children and so on. Thus, any attempt to address the issues surrounding DBM will also facilitate to achieve the Sustainable Development Goals (Goal 2 and Target 3.4) and the Commitments of the Rome Declaration on Nutrition, within the UN Decade of Action on Nutrition. This definitely calls for thinking beyond conventional measures to tackle the problems in the study area.

### Increasing the reach and responsibilities of Anganwadis

Undoubtedly, the sustained intervention of Anganwadis is welcome to ensure food and nutrition security at an early age, and there is also an equal need to educate both parents and children about the daily nutritional requirements of the body and need to follow good food habits and physical activity at early age. Towards this, the proactive role of the Anganwadi centre in monitoring the food habits of young children is welcome.

### Effective implementation of 'One Nation One Ration Card'

The government should not only initiate the 'One Nation One Ration Card'<sup>12</sup> policy on paper but this should be implemented in its true spirit. This will facilitate among others migrant construction workers who keep changing their base due to the changing nature of the job. Periodic evaluation of the scheme should also be mandated to understand and rectify the real technical/administrative issues in implementing such schemes. In the absence of this, the effectiveness of such ambitious projects will be insignificant.

### NGOs' role in introducing newer approaches to improve nutrition among children

Several NGOs like Oxfam, Sampark and Diyaghar are working with children of construction workers in Bengaluru and other cities as well. It is important to make education on nutrition a part of their lives through fun activities and by providing them with nutritious foods for which they develop a taste. For instance, millets are known for providing a massive health benefit and Bengaluru city

being the millet capital of India is working extensively towards reviving these forgotten foods into the mainstream eating habits of the people. There is a large scope for these NGOs to experiment by introducing healthy snacks and have a positive impact on their health through experimentation which can be adopted at a larger scale by the government.

### Linking AYUSH programme to improve health and nutrition among children

There are huge challenges in providing healthcare in India because of the rising costs and poor infrastructure. Hence, traditional medicine is seen as a positive alternative for improving health. Linking AYUSH initiatives to improve the overall health and status of children can bring about phenomenal change. Networking with institutions enrolled under AYUSH and upscaling the programme would be a good option.

For instance, SOUKYA Foundation DMRC (Dr. Mathai's Rural Health Care Centre) under the AYUSH programme aims at reviving traditional healthcare systems in peri-urban areas. Yoga classes are made interesting, benefits of asanas (postures) for specific diseases, Pranayama and Surya Namaskar are taught to improve children's fitness, health and stamina, besides concentration levels and IQ. Also, there are monthly check-ups in Anganwadis for malnutrition, physical growth (height & weight), hemoglobin levels and respiratory ailments. Later, children diagnosed with ailments are provided Ayurvedic/Homeopathic medicines and monitored on a regular basis and research is carried out by documenting children's responses to medication and treatment provided for low haemoglobin count.

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<sup>12</sup> Finance Minister has announced this in the month of August, 2019. Currently 17 states have implemented the same. Given the onset of Covid – 19, government rolled out massive plan to execute the same on 14-05-2020.

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