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# Impact of Seasonal Migration on the Nutritional Status of Sugarcane Harvesting Workers' Children: A Case Study of Sahyadri Sugar Factory, Karad, Maharashtra, India

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***Abstract:***

*Seasonal migration for sugarcane harvesting is common in Maharashtra and provides income to many poor families. However, this migration creates serious problems for the health and nutrition of workers' children. This study examines the impact of seasonal migration on the nutritional status of children of sugarcane harvesting workers, with special reference to the Sahyadri Sugar Factory, Karad, Maharashtra.*

*The study is based on primary data collected from 463 migrant children using household surveys and simple dietary recall methods. The findings show that most children suffer from poor and unbalanced diets during the migration period. About 96.11% of children receive only two meals a day, which reflects food insecurity. Fresh food intake is limited, as 86.61% of children consume fresh food only in the evening. The daily diet mainly consists of cheap staple foods such as bhakari and rice, while nutritious items like vegetables, pulses, fruits, milk, and eggs are consumed in very small quantities. Intake of fruits, sprouted cereals, and dry fruits is almost absent, indicating a high risk of micronutrient deficiencies.*

*Seasonal migration affects children's nutrition by disrupting regular income, access to public food distribution, and nutrition services at the worksite. Families often lack proper cooking facilities and depend on monotonous, low-cost food. The study concludes that poor nutrition among migrant children is not due to parental neglect but is mainly caused by migration-related hardships and policy gaps. Strengthening migrant-friendly nutrition programs and providing on-site child support services are essential to improve the nutritional status of these children.*

***Keywords: Seasonal Migration, Sugarcane Harvesting, Migrant Children, Nutrition, Food Insecurity, Maharashtra.***

## Introduction:

Seasonal migration has emerged as a defining feature of India's rural labor economy, particularly in regions characterized by agrarian distress, water scarcity, and limited employment opportunities. Maharashtra, one of India's leading sugarcane-producing states, depends heavily on migrant labor for sugarcane harvesting. Workers, predominantly from drought-prone districts of Vidarbha and Marathwada, migrate seasonally along with their families to sugarcane-growing regions of western Maharashtra.

While seasonal migration provides temporary income security, it simultaneously disrupts the social and developmental environment of migrant households. Children accompanying migrant sugarcane harvesters are exposed to unstable living conditions, lack of access to basic services, and exclusion from public welfare systems. Among these challenges,

nutritional deprivation remains one of the most persistent and least addressed concerns.

Adequate nutrition during childhood is essential for physical growth, cognitive development, and long-term health outcomes. However, migrant children often experience irregular food intake, limited dietary diversity, and micronutrient deficiencies. Despite constitutional guarantees and nutrition-related welfare schemes in India, migrant children remain disproportionately vulnerable. This paper seeks to examine how seasonal migration shapes the nutritional status of sugarcane harvesting workers' children through a case study of the Sahyadri Sugar Factory, Karad.

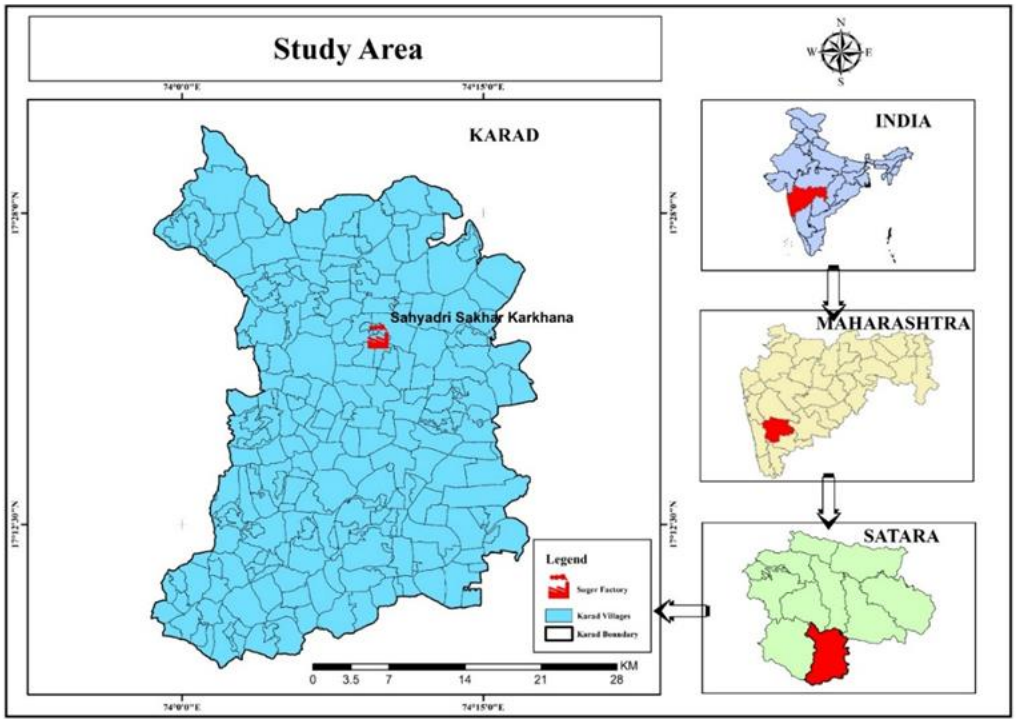
**Objectives:**

1. To assess the nutritional status of sugarcane harvesting workers children.
2. To analyze meal frequency and food consumption patterns among migrant children.
3. To examine the intake of nutritious and micronutrient-rich foods.
4. To understand the impact of seasonal migration on children's food security.

**Methodology:**

**1.Study Area:**

The study has been conducted around Sahyadri Sugar Factory, Karad, located in the Satara district of Maharashtra.




**2. Sampling:** With the help of random sampling method 463 respondents have been selected from migrant worker settlements in and around the sugar factory's field area.

**3. Data Collection Tools:** Information related to meal frequency, food consumption patterns, dietary diversity, and intake of nutritious foods has been collected using structured questionnaires, direct interviews with children, parents and guardians, on-site observations, dietary recall interviews.

4. **Data Analysis**: Data have been analyzed using descriptive statistics (frequency and percentage) to determine trends and patterns in meal frequency, diet composition, and nutritional intake.

**Results and Data Analysis:**

**1.Meal Frequency among Migrant Children (N = 463)**

| Meal Frequency | Number of Children | Percentage |
|---|---|---|
| One meal/day | 0 | 0.00 |
| Two meals/day | 445 | 96.11 |
| Three meals/day | 18 | 3.89 |

The data reveal that an overwhelming majority of migrant children (96.11%) consume only two meals per day, which is insufficient for growing children engaged in physically demanding environments. Regular three-meal consumption is extremely rare (3.89%), indicating widespread food insecurity. Seasonal migration disrupts stable food access due to long working hours of parents, lack of cooking facilities, and irregular income patterns (UNICEF, 2014).

**2. Fresh Food Intake Patterns (N = 463)**

| Fresh Food Intake | Number of Children | Percentage |
|---|---|---|
| Only in the afternoon | 0 | 0.00 |
| Only in the evening | 401 | 86.61 |
| Two times a day | 62 | 13.39 |
| Three times a day | 0 | 0.00 |

The predominance of single-time fresh food intake (86.61%) highlights poor dietary regularity. Fresh food consumption is largely confined to evening hours, reflecting parental absence during daytime due to harvesting work. Seasonal migration thus limits children's access to balanced meals throughout the day, increasing nutritional vulnerability.

**3.Composition of Daily Diet (N = 463)**

| Food Item | Percentage (%) |
|---|---|
| Bhakari | 93.74 |
| Rice | 72.79 |
| Cereals | 41.90 |
| Pulses | 25.27 |
| Vegetables | 28.29 |
| Dal | 13.39 |
| Chapati | 20.30 |
| Chutney | 22.03 |
| Thecha | 85.31 |
| Curry | 28.28 |

The daily diet of migrant children is heavily dominated by carbohydrate-rich staples such as bhakari and rice. While these foods provide energy, the low consumption of pulses, dal, and vegetables reflects inadequate intake of proteins, vitamins, and minerals. This pattern is

characteristic of a distress-driven nutrition transition, where economic constraints force households to prioritize calorie sufficiency over nutritional quality (Popkin, 2006).

**4. Intake of Nutritious Foods and Micronutrients (N = 463)**

| Nutritious Food | Percentage (%) |
|---|---|
| Milk | 36.8 |
| Eggs | 36.8 |
| Meat | 37.0 |
| Vegetables | 26.2 |
| Leafy Vegetables | 31.4 |
| Fruits | 2.8 |
| Fish | 0.0 |
| Dry Fruits | 0.2 |
| Sprouted Cereals | 1.2 |

The extremely low consumption of fruits (2.8%), dry fruits (0.2%), and sprouted cereals (1.2%) indicates severe micronutrient deficiencies among migrant children. These deficiencies increase the risk of anemia, stunting, weakened immunity, and poor cognitive development. Seasonal migration further exacerbates these conditions by excluding children from public nutrition programs such as ICDS and Anganwadi services (WHO, 2010).

**Discussion:**

The poor nutritional status of sugarcane harvesting workers children is closely connected to the realities of seasonal migration. Families live in temporary settlements near worksites where basic facilities such as proper kitchens, safe storage for food, clean water, and access to affordable fresh vegetables or fruits are often missing. Because of frequent movement and lack of local documents, migrant children are commonly left out of government nutrition programs like ICDS, mid-day meals, and Anganwadi services.

Seasonal migration also affects children's diets in less visible ways. Long working hours force parents to prepare food quickly, leading to repeated use of the same simple meals that are filling but not nutritious. Irregular income during the migration period further limits the ability to buy milk, fruits, eggs, and vegetables. As a result, children consume diets that are high in cereals but poor in essential nutrients, increasing the risk of undernutrition and micronutrient deficiencies.

Importantly, this situation should not be seen as parental carelessness. Parents are often aware of their children's nutritional needs but are constrained by poverty, work pressure, and the absence of institutional support at migration destinations. Seasonal migration, therefore, creates a cycle of food insecurity and nutritional deprivation that directly affects children's growth, health, and overall development.

**Conclusion:**

The study concludes that seasonal migration has a profound negative impact on the nutritional status of sugarcane harvesting workers' children. Despite contributing significantly to the rural economy, migrant families remain excluded from basic child nutrition services. Addressing child malnutrition among migrant populations requires migration-

sensitive policies, portable welfare benefits, and on-site nutrition and childcare facilities.

**Policy Recommendations:**

- Developing portable nutrition entitlements for migrant children
- Establishing temporary anganwadis and nutrition centers in labor camps
- Factory-level accountability for child nutrition support programs
- Integration of nutritional interventions with education and healthcare services
- Migration-sensitive planning under the National Nutrition Mission

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