

HEALTH STATUS OF THE LODHA COMMUNITY IN WEST BENGAL**Aritra Basak^{1*}, Giyasuddin Siddique²**¹Research Scholar, Department of Geography, The University of Burdwan, Burdwan, India²Professor, Department of Geography, The University of Burdwan, Burdwan, India

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Abstract

Globally, it is often acknowledged that “health is wealth.” That most people’s health is largely influenced by their financial situation—without money, access to healthcare is practically unachievable—is, nevertheless, never highlighted. Food consumption, influenced by availability and purchasing capacity, is largely responsible for the population’s health and nutritional status. The Lodha Tribal community is one of the Particularly Vulnerable Tribal Groups in West Bengal. They live mainly in Jhargram and Paschim Medinipur District of West Bengal. The study result shows that per day dietary intake of the Lodha tribal groups is less than the Recommended Dietary Allowance (RDA), affecting their health status.

Keywords: Health; Particularly Vulnerable Tribal Groups; Nutrition; Food Habit; World Health Organization.

Introduction

India, home to more than a billion people, is one of the developing countries of the globe. 84 million tribal people, or nearly 8.2% of the total population of India, are estimated to be living there based on the 2011 census (Mittal and Srivastava, 2006). The tribal people of India are generally regarded as economically and socially marginalized (Ghosh and Bharati, 2006). With distinct cultural and socio-economic status, there are roughly 705 Scheduled Tribes (ST) and 75 Particularly Vulnerable Tribal Groups (PVTGs) (Census 2011). The majority of India’s tribal populations reside in rural areas (Narain, 2019). After living in forests for a while, some have started cultivating as either owners or labourers (Mishra, 2017). Every tribe has a different socio-economic condition, shaped by their natural surroundings and includes things like farming methods and vocational profiles. Several research investigations have indicated a robust relationship between the tribe’s habitat and nutritional status (Damman, 2008). Indigenous groups are at risk of undernutrition due to food and nutrition deficiencies (Ghosh-Jerath, 2016; Browne, 2020).

West Bengal is home to 5.1% of all tribal people in India, making it the ninth most tribally populated state (Biswas, 2020). Roughly 5.8% of the 9.13 crore people in the state are Scheduled Tribes. West Bengal had the highest rate of chronic energy deficiency (CED) among adult tribal people in India, according to recent research (NFHS-2, 2001).

In this study, one of the Particularly Vulnerable Tribal Groups (PVTG) of West Bengal, i.e., Lodha, has been considered for the health status analysis through anthropometric measurement and daily nutritional intake.

Study Area

The Lodhas are a prehistoric tribe of India, primarily found in the regions of West Bengal and Odisha. They mostly reside in the Purulia, Bankura, Jhargram, and Paschim Medinipur districts of West Bengal. They are of great interest to researchers and social workers who work in rural areas for the betterment of backward and downtrodden people (Bhowmick, 1963).

With 1,08,707 members as of the 2011 Census, the Lodhas are the largest Particularly Vulnerable Tribal Group (PVTG) in West Bengal. Previously considered a criminal tribe, they were also a de-notified community, a primitive tribal group, and finally a PVTG. The districts of Jhargram and Paschim Medinipur are home to most of them (2011 Census). The Lodhas have dispersed over various deforested areas, where they are employed as agricultural and non-agricultural labourers or are farming their land. They no longer only reside in the areas covered by forests. However, gathering small-scale forest products, like leaves for making leaf plates to sell, remains the base of their income.

We have selected Jhargram and Paschim Medinipur Districts of West Bengal for this study. In Jhargram, Binpur-II, Nayagram, and Jhargram Blocks are chosen. In Binpur-II, two villages, i.e., Belpahari and Bamandiha, have been selected. Two villages, Gohal Diha and Kul Diha from Nayagram C.D.Blocks and Lodhasuli, Lalbazar villages, have been chosen from the Jhargram C.D.Blocks for this research work.

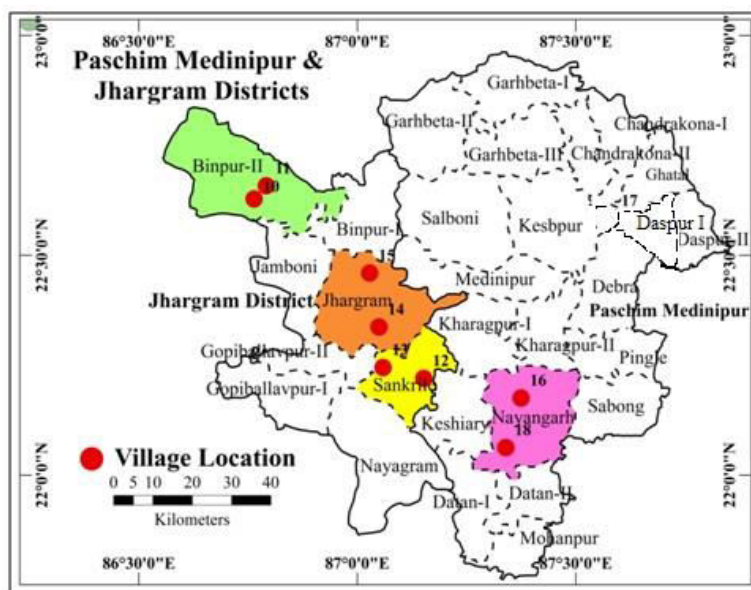


Fig. No. 1: Location Map of the Study Area

Objectives

The main objectives of the present study are-

- To assess the health status of the Lodha community through anthropometric measurement and
- to examine the dietary pattern or nutritional intake.

Database

In this work, qualitative and quantitative data have been collected through household surveys. The survey included structured questionnaires, participatory observations, and focus group discussions.

One hundred fifty adult males and 150 adult females (300 adults) of the Lodha community have been selected for the anthropometric survey.

For convenience, measurements were taken on adult males and females (aged 18-45 years) who looked normal and had no apparent acute disease or disorders. Information on age, ethnicity, and gender was collected using a pre-tested questionnaire by house-to-house visit following interview and examination. Using standard techniques, the researcher took each subject's weight (kg) and height (m).

Methodology

To measure the health status of the selected communities, Body Mass Index (BMI) (WHO 1995) is obtained by dividing Body Weight (in kg) by Stature (in m²). This method is simple and inexpensive compared to existing processes and is suitable for large-scale surveys (Das & Bose, 2015). Chronic energy deficiency (CED) is measured through BMI values.

Nutrition Intake was measured through a 24-hour recall method. The quantities of food were assessed by asking respondents to choose from three standard-sized bowls, glasses, and spoons.

Result

Body Mass Index (BMI) is a measure used to assess an individual's body fat based on height and weight (Nuttall, 2015; Khanna, 2022). It's calculated by dividing a person's weight in kilograms by the square of their height in meters (Zierle-Ghosh, 2023). The formula for BMI is:

$$\text{BMI} = \text{weight (kg)} / \text{height (m}^2\text{)}$$

Table No.1: WHO Classification for Asians

| BMI Class | Nutritional Grade |
|-----------|---------------------|
| <16.0 | CED III |
| 16.0-17.0 | CED II |
| 17.0-18.5 | CED I |
| 18.5-20.0 | Low Normal |
| 20.0-25.0 | Normal |
| >25.0 | Overweight/ Obesity |

Source: WHO, 1995

The data in Table 2 depicts the mean BMI of different groups of the Lodha community. The mean BMI of adult Lodha men and women is 19.1 and 18.0, respectively.

Table No. 2: Anthropometric Measurement (BMI) of Lodha

| Parameter | Men | Women |
|-------------|-----------------|-----------------|
| Height (cm) | 157.4±6.9 | 150.2±6.1 |
| Weight (kg) | 51.5±5.1 | 40.6±4.8 |
| BMI | 19.1±2.0 | 18.0±2.4 |

All values are expressed as mean ± standard deviation (Source: Field Survey, 2022-23)

Table No. 3: Chronic Energy Deficiencies (CED) of Lodha Men and Women as per BMI

| BMI | CED Category | Men (%) | Women (%) |
|-----------|-------------------------|---------|-----------|
| <16.0 | CED Grade III (Severe) | 7.5 | 6.4 |
| 16.0-17.0 | CED Grade II (Moderate) | 9.5 | 10.0 |
| 17.0-18.5 | CED Grade I (Mild) | 25.5 | 29.3 |
| 18.5-20.0 | Low weight normal | 29.0 | 26.3 |
| 20.0-25.0 | Normal BMI | 27.0 | 24.7 |
| 25.0-30.0 | Obese Grade I | 1.5 | 3.3 |
| | Total | 100 | 100 |

(Source: Field Survey, 2022-23)

Table 3 shows the Chronic Energy Deficiencies (CED) of Lodha Men and Women as per BMI. It shows that 25.5% of Lodha men and 29.3% of Lodha women come under the CED Grade I (Mild) group. 9.5% of Lodha men and 10% of Lodha women come under CED Grade II (Moderate), whereas 7.5% of Lodha men and 6.4% of Lodha women come under the CED Grade III (Severe) category. So, as per the Chronic Energy Deficiencies (CED) data, the Lodha tribal group is weaker than the Birhor tribal group.

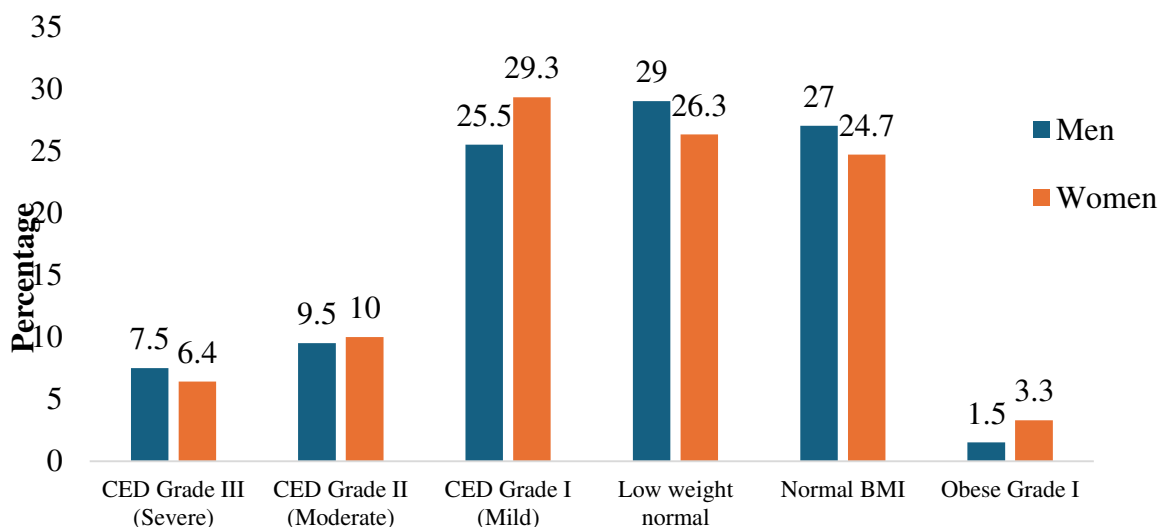


Fig. No. 2: Chronic Energy Deficiencies (CED) of Lodha Men and Women as per BMI

Food Intake and Diet-Related Practices of Lodha

Rice is the main meal consumed by the Lodhas. Puffed rice and rice flakes are other popular forms of rice consumption. They eat three or two meals a day. Lodha people eat various vegetables along with boiled rice for lunch. They occasionally serve cooked fish with mustard oil. They like to consume the crops they harvest from their land and the surrounding forests or bodies of water. They consume non-vegetable foods like chicken, mutton, fish, dried fish, and vegetables. Drinking alcohol is essentially a part of their eating routine. Rice is fermented and mixed with Bakhor bori, or tablets, to make Handia. This is a tribal treat that is eaten on special occasions and donated to the gods at festivals. Its high glucose and carbohydrate content helps it burn energy and stay cool while working in the intense sun. The blooms of Mahul (Madhuca longifolia) are fermented to make Mahua.

Table No. 4: List of Commonly Consumed Food Items by The Lodha Tribe of West Bengal

| Food Category | English Name | Scientific Name | Seasonality | Consumption Type |
|------------------------|------------------|-------------------------|---------------------|-------------------|
| Cereal | Rice (Milled) | Oryza Sativa | Throughout the year | Boiled |
| | Puffed Rice | | | Raw |
| | Rice Flakes | | | |
| | Wheat Bread | Triticum aestivum | | Baked |
| Pulses and Legumes | Soyabean | Glycine max Merr. | Throughout the year | Boiled and Cooked |
| | Lentil | Lens asculenta | | |
| | Pigeon Pea | Cajanus cajan | | |
| | Bengal Gram | Cicer arietinum | | |
| Green Leafy Vegetables | Drumstick Leaves | Moringa olifera | Spring | Cooked |
| | Spinach | Spinacia oleracea | Winter | |
| | Malabar Spinach | Basella alba | Rainy | |
| | Ground Leaves | Langenaria siceraria | Summer | |
| | Margosa Leaves | Azadirachta indica | | |
| Other Vegetables | Mushroom | Agaricus bisporus | End of Monsoon | Fried and Cooked |
| | Bamboo | Bambusa oldhamii | Rainy | |
| | Tomato | Lycopersicon esculentum | Winter | Cooked |
| | Cabbage | Brassica oleracea | | |
| | Peas | Pisum sativum | | |

| | | | | |
|-----------------------------|-------------------|-------------------------|---------------------|-------------------|
| | Raddish | Raphanus sativus | | |
| | Beetroot | Beta vulgaris | | |
| | Turnip | Brassica rapa | | |
| | Brinjal | Solanum melongena | Summer | |
| | Arum | Colocasia esculenta | | |
| | Pumpkin | Cucurbita maxima | | |
| | Bitter Gourd | Momordica charantia | Summer-Rainy | |
| | Ladies Finger | Abelmoschus esculentus | | |
| | Ridge Gourd | Luffa acutangula | Summer | |
| | Carrot | Daucus carota | Winter | |
| | Cauliflower | Brassica oleracea | | |
| | Cheek Pea | Cicer arietinum | Throughout the year | |
| | Lemon | Citrus limon | | |
| Roots and Tubers | Potato | Solanum tuberosum | Throughout the year | Boiled and Cooked |
| | Onion | Allium cepa | | Raw and Cooked |
| | Taro root | Colocasis esculenta | Summer | Boiled and Cooked |
| | Chinese yam | Dioscores oppositifolia | | |
| | Spread-leaved yam | Dioscorea glabra | | |
| Fruits and Nuts | Common Jujube | Ziziphus jujuba | Spring | Raw |
| | Bel | Aegel marmelos | Summer | |
| | Tamarind | Tamarindus indica | | Mixture |
| Condiments and Spice | Green chilli | Capsicum annum | Throughout the year | Raw and Cooked |
| | Cumin Seeds | Cuminum cyminum | | Spice |
| | Garlic | Allium sativum | | Paste |
| | Ginger | Zinziber officinale | | |
| | Turmeric | Curcuma domestica | | Raw and Paste |
| Fishes and Seafoods | Rohu | Labeo rohita | As Available | Fried and Cooked |
| | Crab | Scylla tranquebarica | | |
| | Prawn | Macrobrachium sp. | | |
| | Walking Catfish | Pangasius | | |

| | | | | |
|-----------------------------|------------------|--------------------------|--------------|-----------------|
| | | pangasius | | |
| | Freshwater Snail | Theodoxus fluviatilis | | |
| Meat and Poultry | Duck | Anas platyrhynchos | As Available | Cooked |
| | Hen | Gallus gallus domesticus | | |
| | Goat | Capra aegagrus hircus | | |
| | Pork | Sus domesticus | | |
| | Rabbit | Oryctolagus cuniculus | | |
| | Snake | Serpentes sp. | | |
| | Deer | Cervidae sp. | | |
| | Egg (Hen) | Gallus gallus domesticus | | Boiled & cooked |
| Fats and Edible Oils | Mustard Oil | Brassica juncea | - | Cooking medium |
| Sugar | Sugar Cube | Saccharum officinarum | - | As required |

(Source: Bisai and Dutta, 2021)

From the diet survey of Lodha Tribes, it is observed that Lodha adult men are getting 1920 kcal per day, which is only 66.8% of RDA, Lodha adult women are getting 1315 kcal per day, which is 59.1% of RDA and Lodha Children are getting 1245 kcal per day which is 62.3% of RDA. So, from the dataset, it is clear that the Lodhas consume less than the recommended calories, affecting their health status. (Table No. 5)

Table No. 5: Nutritional Intake of Lodha Tribal Group

| Food Group | g/portion | RDI (in portions) | | Mean intake of Lodha tribals | |
|-------------------------------|-----------|-------------------|-------|------------------------------|-------|
| | | Men | Women | Men | Women |
| Cereals | 30 | 16 | 12 | 11.8 | 8.1 |
| (%) RDI | | | | 73.7 | 67.5 |
| Pulses + Meat | 30 | 3 | 2.5 | 0.7 | 0.5 |
| (%) RDI | | | | 23.3 | 20 |
| Milk | 100 | 3 | 3 | - | - |
| (%) RDI | | | | Neg. | Neg. |
| Green leafy vegetables | 100 | 1 | 1 | 0.4 | 0.4 |
| (%) RDI | | | | 40 | 40 |
| Other Vegetables | 100 | 1 | 1 | 0.5 | 0.3 |

| | | | | | |
|---|-----|------|------|-------------|-------------|
| (%) RDI | | | | 50 | 33 |
| Fruit | 100 | 1 | 1 | - | - |
| (%) RDI | | | | Neg. | Neg. |
| Sugar+ Jaggery | 5 | 8 | 5 | 2 | 1 |
| (%) RDI | | | | 25 | 20 |
| Fats and oils | 5 | 7 | 6 | 2 | 2 |
| (%) RDI | | | | 28.5 | 33.3 |
| Total energy consumed per day (kcal) | | 2875 | 2225 | 1920±293 | 1315±209 |
| (%) RDA | | | | 66.8 | 59.1 |

(Source: Field Survey, 2022-23)

Conclusion

One of the socially and economically marginalized tribal communities in West Bengal is the Lodha community. This tribe has a poor and morbidity-prone health status. A lower availability of nutrients in their regular food intake is the cause of their weak health status. The results of the study have shown that the Toto tribal group is unable to take advantage of the economic and health opportunities provided by different programs. Furthermore, the ecological and locational benefits are not enjoyed by tribal families. It is demonstrated that the tribal people need assistance to profit fully from the development plans and that the village-level local authority cannot supply it.

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