

Consumption Pattern of Finger Millet in Odisha: A Block Level Analysis

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Abstract

Finger millet (Eleusine coracana), which is also called Ragi or Mandia, is an old cereal crop that is very good for you and the environment. Finger millet has been a traditional food in the Indian state of Odisha for many generations, but the way people eat it has changed over time. The study's goal is to look at how finger millet is eaten in Odisha and find out more about its historical importance, nutritional value, and current use. To get a full picture of how people in Odisha eat finger millet, the study uses a variety of methods, such as surveys, interviews, and data analysis. It looks at the history of finger millet in the area and how it has been used in food and culture. The study also looks at finger millet's nutritional benefits, pointing out how it can help solve problems like food insecurity and poor nutrition. The study also looks into how people in Odisha currently eat finger millet, taking into account things like socioeconomic status, moving to cities, and changing eating habits. As new food options come out and government policies have an effect, the article looks into the reasons behind any changes in eating habits. Researchers now know more about how finger millet fits into Odisha's food culture and the problems it faces in the modern world thanks to the results of this study. It shows how important it is to encourage people to grow and eat finger millet to improve nutrition, increase food security, and protect the region's cultural heritage. The study also has useful information for people who work in policymaking, research, and other areas interested in nutrition and sustainable farming in Odisha and other places.

Keywords: Ragi , Mandia, Finger millet, Odisha's food culture, Rayagada district, Population

Introduction

Plants in this group have small seeds and are grown for food all over the world. They do well in dry places that don't get much rain, and they are known for being tough and flexible. They are now called "nutri-cereals" because they are so good for you. Millets are also good for you because they have many vitamins and minerals, such as iron, calcium, and B vitamins. These days, millets are more well-known all over the world as a healthy and long-lasting food. Because of this, more people are eating millet now.

Several sources say that millets have been grown by people since the Stone Age. A long time ago, farming was very easy. People and farmers alike like it because it grows well in many climates and droughts and can be used to make tasty, healthy meals. For many years,

Indian millet has been grown as a food crop next to paddy. Wheat-based foods aren't eaten as much these days because rice is free and the government pays for it through the Public Distribution System (PDS). There are also reports that Indian families are eating less millets. It dropped sharply from 32.9 kg per person in 1962 to 4.2 kg per person in 2010. (Source: How People Eat Millets and Sorghum in Cities of India: A Large-Scale Survey, 2021). Millets weren't stored or processed well because the value chain wasn't strong, and business owners didn't know that the government could help them. Technology that made millets more useful didn't change much either.¹

But in the last few years, people all over the world have been eating more millet. It was grown 14% more around the world from 2013 to 2018, according to the Food and Agriculture Organization (FAO). China is the only other country in the world that doesn't grow millets or eat them. In India, millets are a main source of food for many people, especially those who live in rural areas. People who live in cities eat more millet for many reasons. People are doing this because they care more about their health, more people live in cities, people have more money, and e-commerce is growing faster.

Millets are very good for you, but farmers in Odisha were using them up very quickly. Some time ago, the crops came back to life thanks to a programme that worked to promote them in tribal areas. All over the State, they are now getting the help they need. The study looks at how people in the district ate millets, mostly ragi, before the programme began. It has information from both first-hand and second-hand sources.

Objectives

The specific objectives of the study are as follows.

- ✚ To examine the consumption pattern of millets
- ✚ To understand the consumption of millets during meals of the day
- ✚ To examine the season wise consumption of millets
- ✚ To elucidate the consumption of millets from market

Methodology

Study Area

Rayagada district is the third largest district in Odisha in terms of its geographical area and it is fifteenth in terms of population including a number of primitive tribal groups. It is full of forests, waterfalls, terraced valleys, meadows especially Bansadhara and Nagabali Rivers are flowing in the district. As per the 2011 Census, the district has an area of 7073 Sq. Kilometers with 9.7 lakhs of population (Table 1.1). The District accounts for the 4.54 per cent of the State's territory and shares 2.31 per cent of the State's total population. The density of population is 137 per Square Kilometer as against 270 persons per Square Kilometers of the State. In the district there are 2667 villages including 200 un-inhabited, covering 11 Blocks, 11 Tahsils, and 2 Sub Divisions. It has 139514 (14.4 per cent) Scheduled Caste (SC) and 541905 (56.0 per cent) Scheduled Tribe (ST) population. Rayagada District consists of 11 Blocks.

¹ Tapas Chandra Roy, Exploring the Top Millet Consumption Trends in Current and Future Context, <https://milletadvisor.com/millet-consumption-trends/>

Rayagada is in the southern part of the state, between 19°0' and 19°58' North Latitude. It is surrounded on three sides by the districts of Kandhamal (north), Andhra Pradesh (south), and Rayagada itself (west). A typical weather pattern is hot and humid in May and June and cold and dry in November and December. About this time every year, the monsoon ends in June. It rained 1165.8 mm in the District each year in 2011, which is less than the normal 1285.9 mm. According to District at a Glance 2016, 395,340,000 quintals of major crops were grown in Rayagada during the financial year 2014–15. Of these, 759,55 quintals were ragi.

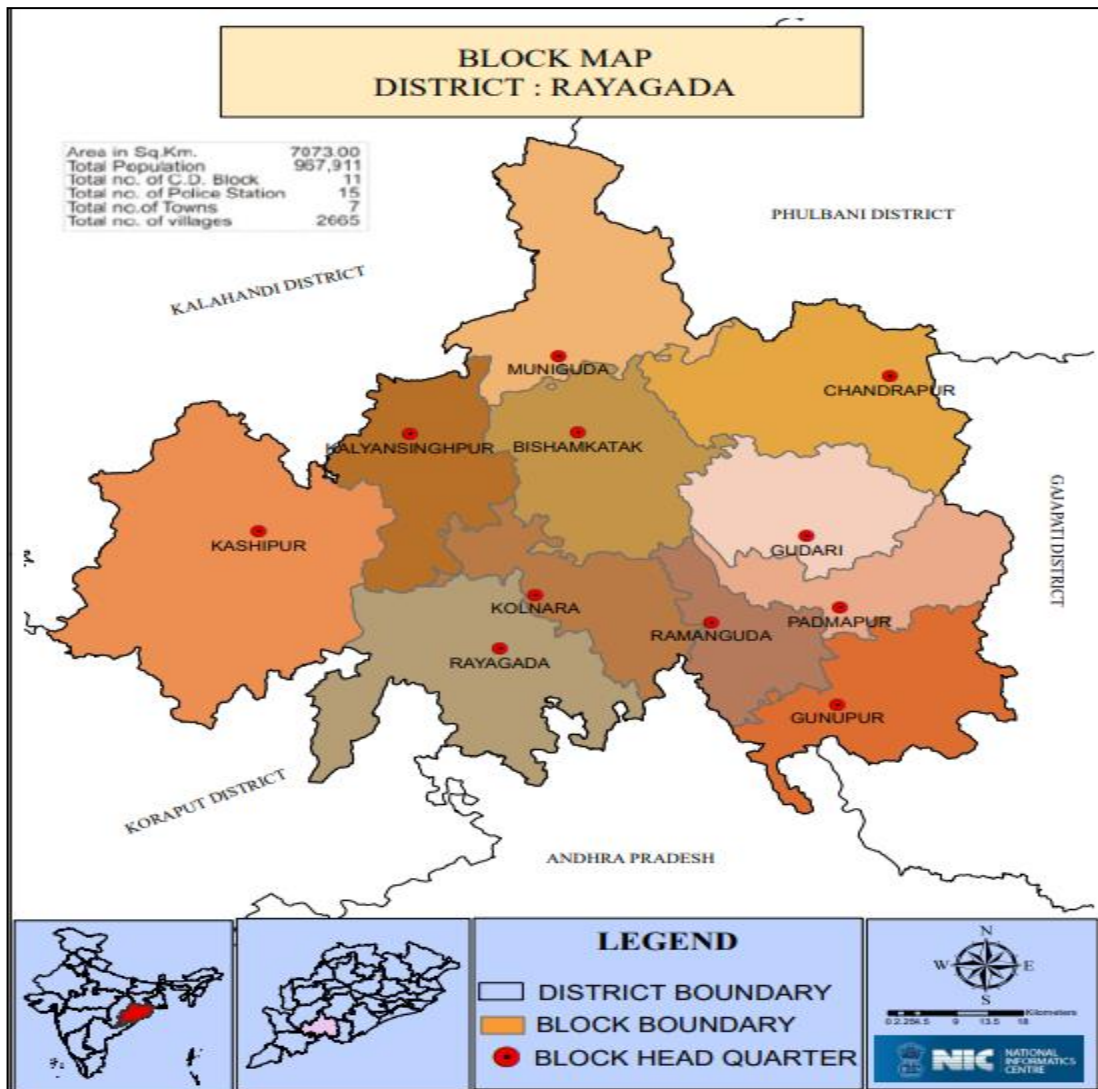


Table- 1: Key Indicators of Rayagada District

Indicators	Value
Census 2011	
Population (in Lakh)	9.7
Male (in Lakh)	4.7
Female (in Lakh)	5.0
Scheduled Caste (in Lakh)	14.4

Scheduled Tribe (in Lakh)	56.0
Others (in Lakh)	29.6
HHS (in Lakh)	2.0
Average HH size	4.8
Sex Ratio	1952
Workers	
Total Worker (in Lakh)	4.7
Main Worker (in Lakh)	2.3
Marginal Worker (in Lakh)	2.4
Non-Worker (in Lakh)	5.1
Work Participation Rate (WPR,%)	48.3
Cultivator as % of Total worker	49.8
Agricultural Labourers as % of Total Worker	4.8
Literacy Rate (%)	49.8
Total Geographical Area (sq.km)	7073
Land Use Pattern (Area in '000 ha) (2014-15)*	
Forest	101
Land put to Non-agricultural use	30
Barren and Non-Cultivable Land	204
Permanent Pasture and Other Agricultural Land	10
Net Area Sown	144
Cultivable Waste Land	9
Old Fallow	23
Current Fallows	42
Miscellaneous Trees and Groves	9
Agriculture, 2014-15*	
Fertilizer Consumption (kg/ha)	54.8
Irrigation, Kharif ('000ha)	71.6
Irrigation, Rabi ('000ha)	28.1
Other Information	
Proportion of village Electrified 9as on march 2014)	28.8
Credit Deposit Ratio (as on December 2015)	38.2
No. of Anganwadi Centres, 2014-15	191257
No. of Job Card Issued (cumulative, March 2015)	184488
HH provided employment through MGNREGS, cumulative 2014-15	75826

Source: District Hand Book, Rayagada, 2011

*District at a Glance-2016

Sampling and tools of data collection

For the study, researcher consider the Ramanaguda block of Rayagada district. A total of four villages were selected from the blocks, where two Gram Panchayats for data collection from the Rayagada district. These villages were selected using the simple random sampling method based on data provided by the implementing agency, WASSAN, about the

prospective villages to be included under Phase VII. This comprehensive baseline survey report is based on both secondary and primary data. Primary data was collected by utilizing a pre-tested interview schedule and Focus Group Discussions with respondents from the concerned districts. Secondary data on geography, population, agriculture, education, irrigation, forests, and institutions was also gathered from a number of published and unpublished sources, such as the 2011 Census. Most of the information has been extracted from chapter on consumption, baseline report of Rayagada district Phase-VII under Odisha Millets Mission. Total number of 80 sample households has been under for the study and analysis.

Finding and Results

Consumption of Millets

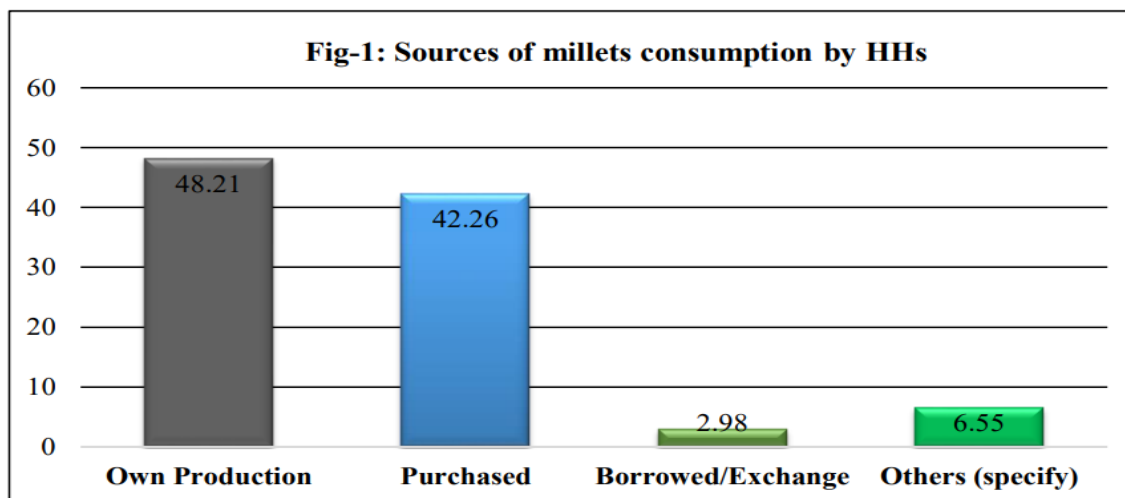
The pattern of millets consumption in Ramnaguda block nearly all the selected sampled i.e., 100 per cent households consume the Millets in the Rayagada district (Table-2).

yes		No		Total	
No	%	No	%	No	%
80	100	0	0	80	100
80	100	0	0	80	100

Source: Baseline report of Rayagada district, Phase-VII, 2023-24

Source of Millets Consumed by HHs

The sources of ragi consumption shows that from out of the total 80 sample surveyed households large number of household i.e., 48.21 percent consuming millets from own production, whereas, 42.26 percent HHs consumed by purchased and 2.98 percent HHs consume millets by borrowed/exchange and i.e., 6.55 percent consumed millets from other sources.

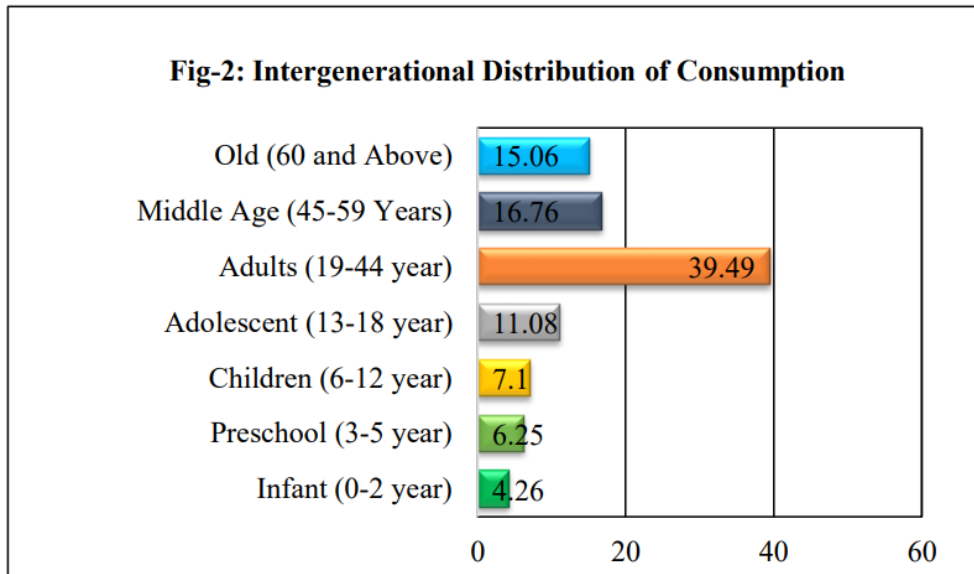


Source: Baseline report of Rayagada district, Phase-VII, 2023-24

Age group-wise Millets Consumption

Age group wise distribution of millets consumption among the population in the sample households has been presented in figure 2. It shows that the rate of millets

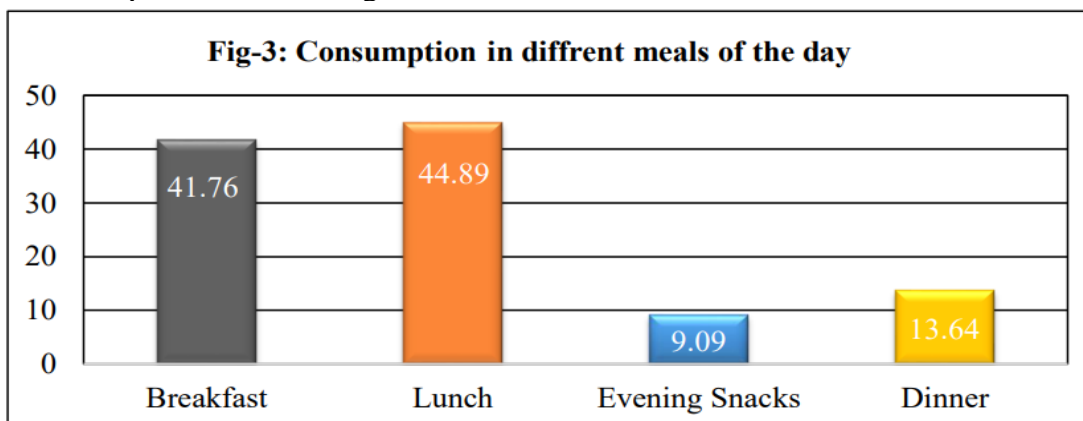
consumption is higher among the adults population which is 91.45 per cent and followed by 38.82 per cent consume millets by Middle age groups. The Old age group which is 34.87 per cent. Where adolescent consume 25.66 percent and the rate of millets consumption among the children, preschool is 16.47 and 14.47 per cent respectively. Among the infant it is 9.87 per cent only.



Source: Baseline report of Rayagada district, Phase-VII, 2023-24

Millets Consumption during Meals of the Day

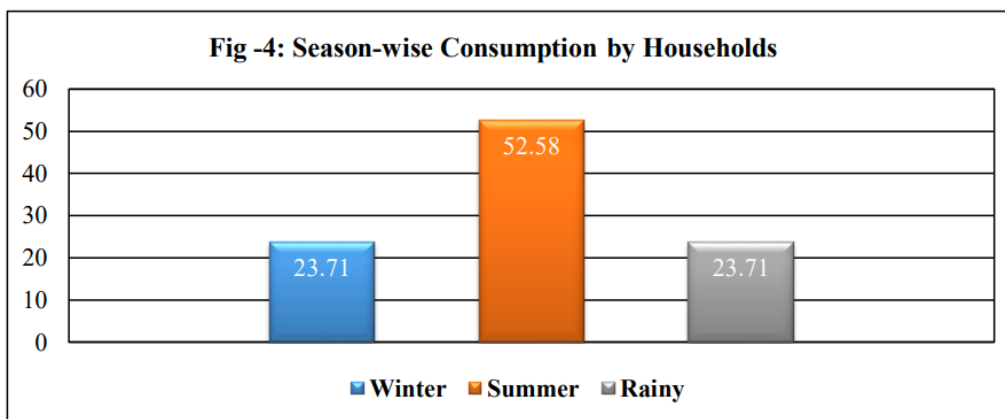
Consumption of millets by HHs during different meals of the day reveals highest consumption that is 44.89 per cent HHs consumed in Lunch followed by their breakfast 41.76 per cent consumed in their meals. Likewise, 13.64 percent HHs consumed in dinner and 9.09 percent in evening snacks.



Source: Baseline report of Rayagada district, Phase-VII, 2023-24

Season-wise Millets Consumed

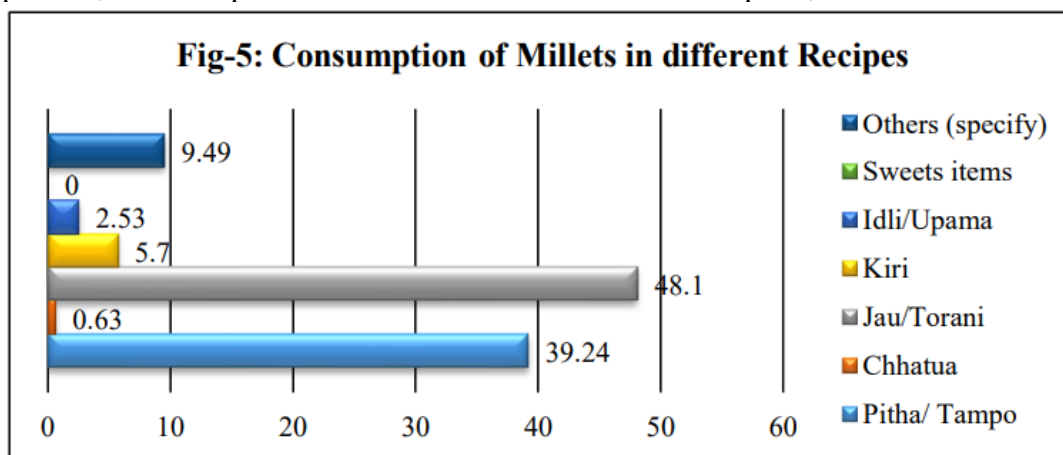
Seasons-wise consumption pattern suggest that consumption of millet is more in summer season compared to rainy and winter seasons. 52.57 percent Household's consume in summer season due to body hydrated and used as summer drink. It is observed from figure -4 that the other two seasons consumption is same i.e., 23.71 percent respectively.



Source: Baseline report of Rayagada district, Phase-VII, 2023-24

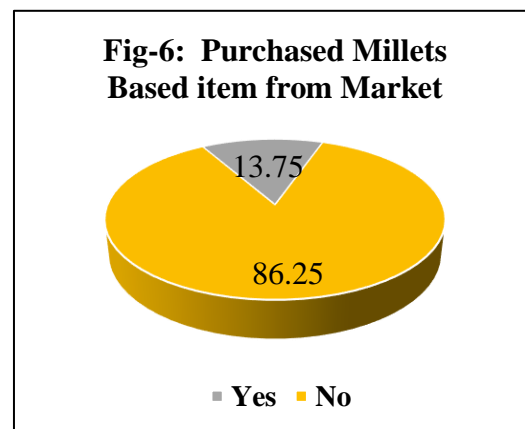
Consumption of Different Recipes

It was found that people were consuming millets in variety items like Pitha, chhatua, Khiri, Jau, and so on. Figure-5 shows that 48.10 per cent HHs consumed millets as a Jau/Torani and follow by Pitha/Tampo which is 39.24 percent. Another 5.70 per cent HHs consumed recipes of millets known as Khiri, also consumed as Iddli/Upama 5.23 percent, and 9.49 percent consumed as other like Chakuli pitha, laddu etc.



Consume Millets Based item from Market

Figure-6 indicates that the households consume millets Based item from Market. It was found that 13.75 percent households consume millets-based items from the market for their consumption while 86.25 percent sampled households were not purchased from market millets based items for their consumption in Ramnaguda block of Rayagada district.



Millet-based item purchased from market

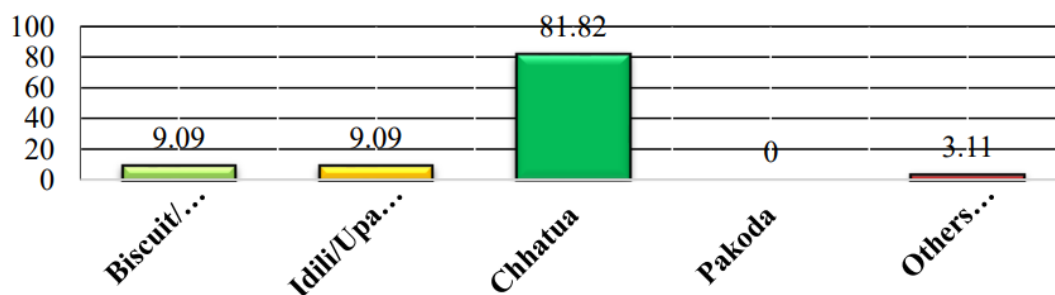
Figure-7 indicates that millet based item purchased from market. In the Ramnaguda block, out of the total purchased households, 81.82 percent households purchase Chhattua which is

highest comparing other items. Whereas 9.09 percent HHs Biscuits, 9.09 percent Idli/Upama and 3.11 percent purchases others items like like Roti, Chakuli, Tampo etc from Market.

Source: Baseline report of Rayagada district, Phase-VII, 2023-24

Conclusion

Fig-7: Purchased Millets Based item from Market for Consumption



Millets are becoming more popular around the world because they are healthy, can be grown in many places, and can be easily adapted to different needs. The pattern of millets consumption among the sample households in the study area of Rayagada district shows that all household consume millets. However, 48.21 percent consuming millets from Own Production and 42.26 percent HHs consumed by purchased. In term of seasonally consumption 52.57 percent Household's consume in summer season and 48.10 per cent HHs consumed millets as a Jau/Torani and follow by Pitha/Tampo which is 39.24 percent. Further, it was found from the study that 13.75 percent households consume millets-based items from the market for their consumption while 86.25 percent sampled households were not purchased from market millets based items for their consumption in Ramnaguda block of Rayagada district.

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