

FOOD AND NUTRITION OF MEGHALAYA TRIBES

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ABSTRACT

This research investigates the intricate relationship between food habits and nutritional well-being among the tribal communities of Meghalaya, located in the northeastern hills of India. Focusing on tribes such as the Khasi and Garo, the study explores historical, ecological, and socio-economic factors shaping their dietary choices. Through methodologies including household surveys, dietary recall, focus group discussions, and anthropometric measurements, the research uncovers traditional diets rich in staples like rice, supplemented by protein sources such as meat and indigenous vegetables. Despite strengths in dietary diversity, challenges such as micronutrient deficiencies and limited dairy consumption are identified. The study emphasizes the importance of preserving and promoting tribal food culture through documentation, sustainable agriculture, and community-based interventions to ensure the health and well-being of Meghalaya's tribal communities.

Keywords: Meghalaya tribes, food and nutrition, traditional diets, dietary diversity, micronutrient deficiencies, cultural preservation, sustainable agriculture.

I. INTRODUCTION

This research explores the intricate relationship between dietary habits and nutritional well-being within Meghalaya's tribal communities, situated in the verdant hills of Northeast India. Focusing on tribes such as Khasi and Garo, the study delves into historical, ecological, and socio-economic factors shaping their food choices, historically influenced by the lush biodiversity of the northeast hills of Meghalaya Aspirational districts. This work is an outcome of research project undertaken to find out traditional knowledge system of tribes in aspirational districts of Meghalaya. The project has been funded by Ministry of Tribal Affairs.

Understanding these dietary practices is imperative for various reasons. Firstly, it unveils sustainable strategies enabling these communities to coexist harmoniously with nature for generations. Secondly, the research aims to inform policymakers and healthcare professionals, guiding targeted interventions to address health and nutrition challenges, including limited access to healthcare and education.

Nestled in the verdant hills of Northeast India, Meghalaya is a land of diverse cultures and vibrant traditions.

Among its inhabitants are the Garo and Khasi tribes, who have developed distinct food systems and nutritional practices adapted to their environment and way of life. Let's delve into the fascinating world of their food and nutrition.

II. RESEARCH METHODOLOGY

- **Household surveys:** Collecting information on food intake, food security, income, and socio-economic factors using structured questionnaires.
- **Dietary recall and food frequency questionnaires:** Assessing individual dietary patterns and nutrient intake. Focus group discussions and in-depth interviews: Exploring traditional knowledge, practices, and perceptions related to food and nutrition in tribal communities.
- **Anthropometric measurements:** Measuring height, weight, and body mass index to assess nutritional status.
- **Food composition analysis:** Analyzing the nutritional content of commonly consumed traditional foods.
- **Participatory observation:** Observing food preparation, consumption, and agricultural practices within tribal communities.
- **Secondary data analysis:** Reviewing existing literature and reports on tribal food systems and nutrition in Meghalaya.
- **Quantitative data:** Using statistical software to analyze dietary patterns, nutrient intake, anthropometric measurements, and socio-economic factors.

The Staple Diet

- **Rice:** For both Garos and Khasis, rice forms the primary staple, providing carbohydrates and energy. The Garos often consume varieties like “jadoh” and “akhani,” while the Khasis favor “jingthang” and “jingkyrmen.”

Protein Power

- **Meat:** Both tribes traditionally relied on hunting and animal husbandry for protein. Pork, chicken, and fish are common favourites, often cooked with indigenous spices and herbs. The Garos have a special dish called “wakhon,” pork cooked in bamboo, while the Khasis relish “dopbuh,” a spicy pork and bamboo shoot curry.
- **Vegetables and Fruits:** Nature's bounty plays a vital role in tribal diets. The Garos utilize bambooshoots, mushrooms, and leafy greens like “singra” and “pethakhon.” The Khasis favor jackfruit, citrus fruits, and local varieties like “sohpetkneng” and “iaru

Fermentation Magic

- **Rice Beer:** Both tribes have a rich tradition of fermenting rice to produce alcoholic beverages. The Garo “chonchi” and Khasi “kawai” are integral to social gatherings and religious ceremonies. These drinks also contribute to gut health and nutrient absorption.

Nutritional Strengths and Challenges

- **Strengths:** The traditional diets of both tribes are generally rich in carbohydrates, protein, and fiber. The abundance of vegetables and fruits provides essential vitamins and minerals. Traditional fermentation practices enhance gut health and nutrient absorption.
- **Challenges:** Micronutrient deficiencies particularly iron and vitamin-A can be a concern due to limited consumption of diverse fruits and vegetables. Changes in lifestyle and food choices due to external influences can lead to increased dependence on processed foods, potentially impacting nutritional balance.

Preserving and Promoting Tribal Food Culture

- **Documentation and education:** Recording traditional recipes, food preparation methods, and indigenous knowledge is crucial for preserving these cultural treasures. Educating younger generations about the importance of traditional food systems can ensure their continuity.
- **Sustainable agriculture:** Encouraging sustainable farming practices that prioritize local crop varieties and biodiversity can enhance food security and dietary diversity.
- **Market linkages:** Creating market linkages for tribal communities to sell their produce can empower them economically and promote the wider appreciation of their unique food cultures. By understanding and appreciating the food and nutrition practices of the Garo and Khasi tribes, we can gain valuable insights into sustainable living and healthy dietary choices. Through collaborative efforts, we can support the preservation and promotion of these unique food cultures, ensuring food security and nutritional well-being for future generations.

The Indigenous food system has drawn a lot of attention lately since it can have a significant impact on nutrition, food security, and overall health. Indigenous peoples' traditional expertise of farming, harvesting, hunting, and gathering allows them to easily obtain traditional foods from their local and natural surroundings. The current global food system is becoming more and more reliant on a small number of food crops; including rice, wheat, and maize, which together provide more than 60% of the world's calories. Energy imbalance brought on by the switch from a traditional to a commercial diet has numerous negative health effects. Nonetheless, the majority of the available information about the nutritional value of Indigenous foods suggests that they may be excellent providers of nutrients and that many of them may be able to expand the current limited dietary basis.

Numerous studies have demonstrated the value of indigenous foods as a good source of macro and micronutrients (iron, calcium, zinc, and vitamins A, D, and C), and they suggest that these foods are either on par with or even better than cultivars that are commonly consumed. Therefore, in order to improve the nutritional and health status of the population that is nutritionally susceptible, it is vital to record data related to the Indigenous foods from respective countries. Numerous researches from different Indigenous People in different nations have been reported by the Food and Agricultural Organisation (FAO).



Selling fruits and vegetables by Khasi tribal women

Although a large number of Indigenous foods have been found, nothing is known about their dietary



preferences, chemical makeup, or other details, which limits the potential use of these foods. Therefore, nutritionally marginal populations or some vulnerable groups within populations may benefit greatly from the dietary inclusion of Indigenous plant resources. Food composition is a key factor in the relationship between nutrition and food biodiversity, and it will help us understand the characteristics of Indigenous foods better.

Honey farming by khasi tribal Man



A Garo woman serving rice at Ri Bhoi District



Staples, Pulses, Nuts and seeds, Meat, Eggs, Leafy vegetables, Vitamin A rich Plants , other vegetables, Other fruits, Dairy are main sources of food and nutrition in Garo and khasi tribes of Meghalaya.



Organically grown vegetables by the Garo Tribes

Observation in Garo and Khasi tribes

The main food groups consumed are starchy staples (100%), other vegetables (89%) and meat (79%). The poor intake of plants high in vitamin-A, such as green vegetables, legumes, nuts, and seeds, as well as fruits and eggs. Consumption of dairy is exceptionally low as generally milk or milk products are not consumed.

Strengths

High consumption of starchy staples and vegetables: This provides a good base for energy and fiber intake, which are essential for physical activity and gut health.

- **Inclusion of meat:** Animal sources contribute protein and essential nutrients like iron and vitamin B12.

Areas for potential concern

Low consumption of leafy vegetables, pulses, nuts and seeds, fruits, and eggs: These food groups are crucial for providing micronutrients like vitamin A, iron, zinc, calcium, and essential fatty acids. Deficiencies in these nutrients can lead to various health problems like anemia, impaired vision, and weakened immune system.

- **Limited dairy consumption:** Dairy products are a good source of calcium, vitamin D, and protein. Lack of these nutrients can increase the risk of osteoporosis and bone fractures.

Overall

Your observation suggests that while the diet of Garo and Khasi tribes provides a foundation for energy and fiber intake, it might be lacking in essential micronutrients due to limited consumption of diverse food groups. This emphasizes the need for:

- **Dietary diversification:** Encouraging the inclusion of more leafy vegetables, pulses, nuts and seeds, fruits, eggs, and dairy products in the diet can address the micronutrient deficiencies.
- **Promoting local plant diversity:** Supporting the cultivation and consumption of a wider variety of indigenous fruits and vegetables rich in vitamins and minerals.
- **Nutritional education:** Raising awareness about the importance of different food groups for overall health and well-being, particularly among vulnerable groups like children and pregnant women.
- **Community-based interventions:** Implementing programs that address affordability, accessibility, and cultural preferences related to diverse food items. By addressing these factors, we can contribute to improving the nutritional status and overall health of Garo and Khasi communities in Meghalaya.

III. CONCLUSION

With the kind assistance of the Ministry of Tribal Affairs, Government of India, this study, “A Research Study of Traditional Knowledge of Tribal Groups: A Special Focus on Aspirational Districts of Meghalaya,” was made possible. The collaboration between Law Center-2, the Law Faculty, the University of Delhi, and the Ministry of Tribal Affairs, which is dedicated to enhancing the quality of life for tribal tribes, is demonstrated by the project's success. Preserving and promoting tribal food culture is crucial for sustainable living and healthy dietary choices. This underscores the importance of:

- **Documentation and education:** Recording traditional recipes, agricultural practices, and indigenous knowledge to ensure their continuity for future generations.
- **Sustainable agriculture:** Encouraging practices that prioritize local crop varieties and biodiversity to enhance food security and dietary diversity.
- **Market linkages:** Creating platforms for tribal communities to sell their produce, empowering them economically and promoting appreciation for their unique food cultures. Collaboration and support are key to ensuring the well-being of tribal communities. This emphasizes the importance of:
- **Partnerships with communities:** Working alongside tribal communities to understand their needs and perspectives, ensuring their voices are heard in efforts to preserve and promote their food systems.
- **Policy and infrastructure support:** Advocating for policies that encourage sustainable food practices and provide infrastructure resources to connect tribal communities with markets and

resources.

IV. REFERENCES

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V. ANNEXURE: QUESTIONNAIRES

General Information

1. **Tribe/Community:** Khasis and Garos
2. **Location:** Districts are East Garo Hills (Williamnagar), South Garo Hills (Baghmara), East Khasi Hills (Shillong) and Ri-bhoi (Nongpoh)
3. **Number of participants:** 13
4. **Age range of participants:** 20 to 58
5. **Gender of participants:** Male and Female

Food Sources and Availability:

1. What are the main sources of food for your community? (e.g., agriculture, hunting, gathering, fishing, purchased food)
2. What are the seasonal variations in food availability?
3. Are there any foods that are considered taboo or culturally restricted?
4. Do you face any challenges in accessing sufficient food? If so, what are the main reasons?

Food Preparation and Consumption:

1. What are the typical meals eaten in a day?
2. How foods are traditionally prepared and cooked?

3. Are there any special foods or dishes eaten during ceremonies or festivals?
4. Do children, pregnant women, or elderly people have any specific dietary needs?
5. How food is typically shared and distributed within the community?

Nutrition and Health:

1. Do you experience any common health problems in your community?
2. Do you think these health problems are related to diet or nutrition?
3. Are there any traditional practices or beliefs related to food and health?
4. Do you have access to any healthcare services or nutrition education programs?