

Food and nutrition security of forest-proximate communities: A case study from Odisha, India

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OBJECTIVE

According to Newton et al.(2022), 1.56 billion people in South and Southeast Asia live in rural areas that are within 5 km of a forest, majority of whom depend on forests for some part of their livelihood. Although forests have been garnering increasing attention in discussions on climate change mitigation, its importance to the food and nutrition security of people living in forested landscapes has hardly been studied. To address this significant gap in literature, this study presents an intersectional analysis of the different pathways through which people living in remote, forested landscapes access food. Particular attention is paid to the pathways through which forests contribute to nutrition security. The aim is to identify policies and practices that strengthen the food and nutrition security of local people, while also addressing the socioeconomic and ecological pressures on forests.

METHODS

This study is empirically rooted in one year of fieldwork I conducted in 2021-22, studying factors affecting the food and nutrition security of women from 402 households in Thuamul Rampur administrative block of Odisha, India. These households were spread across 32 villages selected through a purposive stratified sampling process ensuring variability in distance to forest and distance to food market. As food security vulnerabilities in the rural context are highly seasonal, the same households were repeatedly surveyed across three seasons. Food security was measured using a ten-point dietary diversity score (DDS) for women, based on 24-hour and 7-day recall of food items consumed.

The household food security surveys were supplemented by seasonal surveys of 12 local food markets to capture the diversity of food items available for purchase and their affordability. To gain deeper insights on the different mechanisms through which people access food, interviews and focus group discussions were conducted with a variety of stakeholders. As the study was conducted in an area with poor 'formal' access to community forest resources, several participatory research methods were used to ensure that knowledge generation is complemented by efforts to ensure better community access to forests.

Figure 1: Research team members working from a roadside shelter to access mobile network to upload survey forms.



Figure 2: Discussing the condition of degraded forest land with two members of the local community.

STUDY SETTING

Thuamul Rampur is a fully rural, heavily forested administrative block of Kalahandi district of Odisha, India. 58 percent of its population is Scheduled Tribes, people who have traditionally depended on forests for their livelihood and food security. However, Community Forest Rights has been legally recognized for only 8 out of the 275 villages in Thuamul Rampur.

The region is marked by high levels of poverty and poor market connectivity. While the people of Thuamul Rampur have traditionally depended on forest-produce, forest-based shifting cultivation, and sedentary agriculture as their main sources of food, their food access pathways are undergoing various transformations due to socio-ecological and economic pressures. First, the nature of forest access has been changing due to degradation of natural forests, and implementation of several top-down forest management policies. Secondly, like many other rural forested areas, Thuamul Rampur has recently been witnessing increasing migration of young men in search of higher wages. Such transformations have important implications for local food security..



RESULTS

- Dietary diversity of women was extremely low across all three seasons (See below).

n=402	WINTER	SUMMER	RAINY
MEAN DIET DIVERSITY SCORE -24 HR	2.8 (.71)	2.60 (.69)	2.41 (.62)
MEAN DIET DIVERSITY SCORE -7 DAY	4.86 (1.35)	4.97 (1.34)	5.54 (1.44)

- Not more than two percent of the respondents achieved the minimum dietary diversity for women (MDDW; a score of 5) in any season.
- While there was seasonal variation in people's dependence on different food sources, own agriculture, market sources (weekly food markets and *kirana* stores) were the most relied upon.
- Although forests were not the primary source of food, majority of households collected forest food in all seasons.

- Collection of forest produce was highest (90 percent) in late summer and early monsoon months, which can be attributed to the wide availability of mangoes, mushrooms and bamboo shoots during that period.
- In both rainy and winter season surveys, the weekly dietary diversity score for women was more than one unit higher for those who collected forest produce.
- Forest produce collection contributed to food security mostly through direct consumption of wild food, and not much through income generated from the sale of forest produce.
- The sale of forest produce was extremely low, some of the reasons being:
 - lack of access to well-functioning markets – People mostly rely on individual buyers who come to the villages and offer very low prices.
 - ambiguity about community rights over forest resources –Even in the 8 villages for which community forest rights were formally recognised, people had minimal awareness about their rights, particularly their right to sell forest produce.
- 26 percent of the households in the sample had a migrant in the three months prior to survey. However, there was no significant difference between mean dietary diversity of women in households with migrants and without migrants. Migration currently does not seem to be contributing to better nutrition security of the households as remittances are mainly used to meet other household needs..

IMPLICATIONS

The low dietary diversity of women across all seasons call for a multi-pronged approach for strengthening access to nutrition security. The finding about higher diet diversity score for those who collect forest produce offers some hope. The evidence from qualitative data suggests that forest-food security linkages can be strengthened through better access to forests, calling for formal recognition of forest rights of local communities.

The findings also highlight the importance of interventions to improve market access. Formation of co-operatives and establishment of government procurement centres are potential ways of bringing better prices for forest produce and agricultural commodities. Even if remittances and sale of produce lead to increase in income, the local food markets also need to be improved. Enhancement of nutrition security through food purchases is possible only if people have access to regularly functioning local food markets that offer a nutritionally diverse basket of food items at affordable prices.

SOURCES

Newton, P., Castle, S.E., Kinzer, A.T., Miller, D.C., Oldekop, J.A., Linhares-Juvenal, T., Pina, L., Madrid, M. & de Lamo Rodriguez, J. 2022. *The number of forest- and tree-proximate people – A new methodology and global estimates*. Forestry Working Paper No. 34. Rome, FAO. <https://doi.org/10.4060/cc2544en>