

Title: Diet diversity for improved nutrition: A narrative synthesis of innovative practices promoting dietary diversity and nutritional adequacy in the Indian states of Odisha, Bihar and Jharkhand, with a focus on indigenous and rural people.

Authors: Jørgen Torgerstuen Johnsen*¹, Helena Trigueiro¹, Sucheta Mitra¹ and Sumantra Ray^{1,2,3}

1. Need for Nutrition Education/Innovation Programme (NNEdPro) – Global Centre for Nutrition and Health in Cambridge, UK
2. School of Biomedical Sciences, Ulster University at Coleraine, Coleraine, UK
3. School of Humanities and Social Sciences, University of Cambridge, Cambridge, UK

Acknowledgements to Nitya Rao and the Global Research Translation Award

Background: India has been for years confronted with several challenges and chronic impacts related to malnutrition. Recently India has slowly shifted its focus from an increased food production driven approach to a food-based diet pattern and overall health effects. Yet, healthy diet policy interventions and communication have failed to achieve its intentional effect.

Objectives: This paper aims to identify key issues, gaps and innovative practices to promote dietary diversity and nutritional adequacy among indigenous rural communities in the Indian states of Odisha, Bihar and Jharkhand.

Methods: A search on India's current policy was done using available data from the World Health Organization's Global Database on the Implementation of Nutrition Action (GINA) and the International Food Policy Research Institute (IFPRI) libraries. The Food System Dashboard was used to collect data on India's food environment, while a scoping literature search to map nutrition interventions was conducted in PubMed and Google Scholar.

Results: Odisha, Jharkhand and Bihar suffer from high levels of undernutrition. While overweight and obesity is higher in Odisha (7.8%) but relatively low in Bihar and Jharkhand (1.9% and 2.4%, respectively). India has had a strong national nutrition policy focus over a

long period of time, with a robust policy environment. However, there has been a lack of prioritisation in improving nutritional knowledge, attitudes and practices. Traditional educational programmes have yet to increase diet diversity towards nutritional adequacy. Empowering consumers to adopt and maintain healthy dietary practices is critical to reducing malnutrition while innovative agents of change can enhance education to create tangible impacts.

Conclusions: Tribal communities are affected by multiple determinants of malnutrition. To promote dietary diversification as well as food and nutrition security, a combination of innovative policies and practices tailored to help tribal communities to improve health in their settings needs to be mapped out. Identifying key individuals who may act as agents of change using such innovative practices may lead to greater success in implementation.