

A Community-Based Approach to Integrating Socio, Cultural and Environmental Contexts in the Development of a Food Database for Indigenous and Rural Populations

The Case of the Batwa and Bakiga in South-Western Uganda

Scarpa G, Berrang-Ford L, Twesigomwe S, Kakwangire P, Peters R, Zavaleta-Cortijo C, Patterson K, Namanya DB, Lwasa S, Nowembabazi E, Kesande C, Harris-Fry H, Cade JE. A Community-Based Approach to Integrating Socio, Cultural and Environmental Contexts in the Development of a Food Database for Indigenous and Rural Populations: The Case of the Batwa and Bakiga in South-Western Uganda. *Nutrients*. 2021; 13(10):3503. <https://doi.org/10.3390/nu13103503>



1

INTRODUCTION

Standard methods for developing food lists and databases may produce databases that are **irrelevant** for **marginalised groups** where nutritional needs are highest.

2

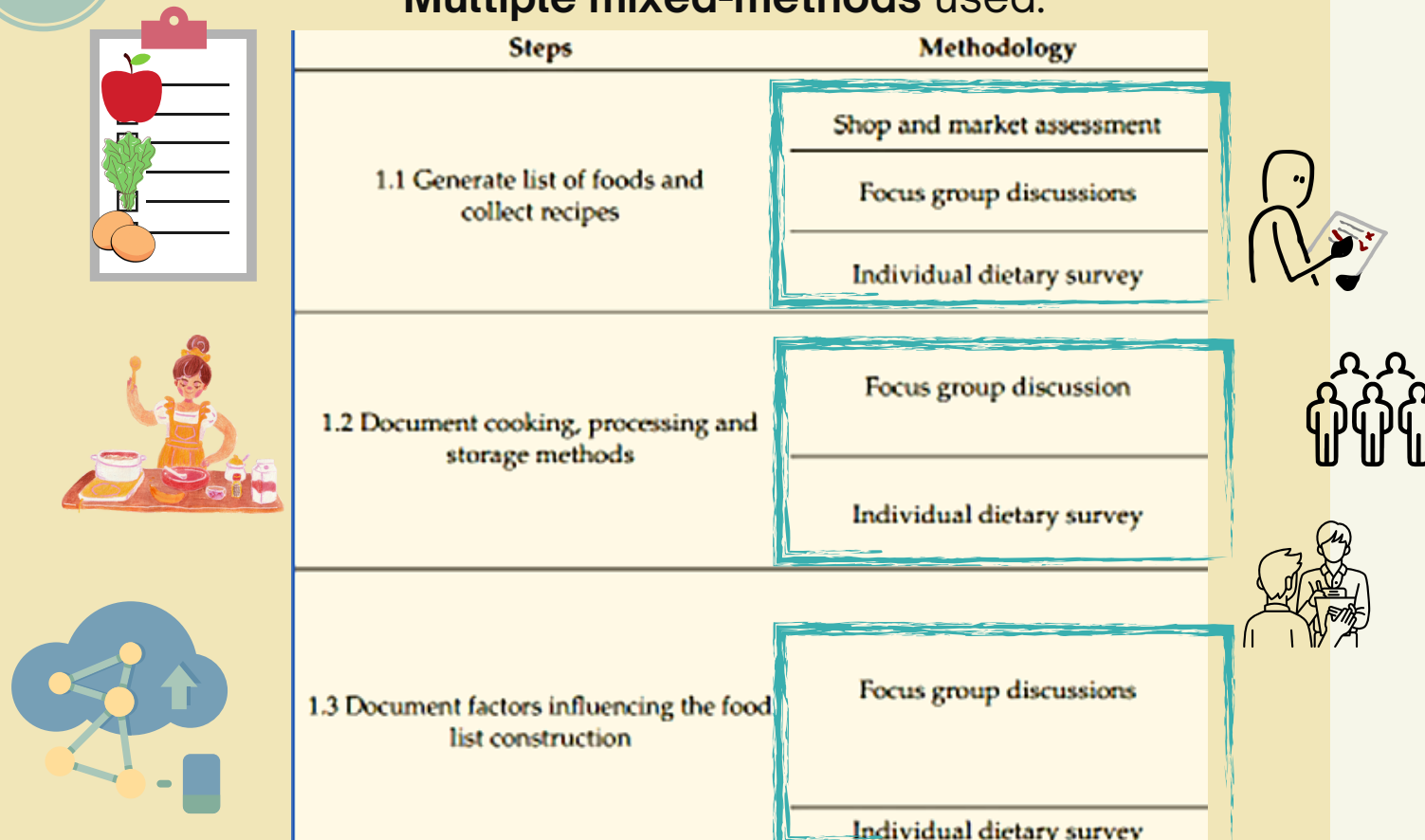
OBJECTIVE

Our study provides a **method** for identifying **critical contextual information** required to build relevant **food lists** for Indigenous populations.

3

METHODS

Multiple mixed-methods used:



4

RESULTS

FACTORS INFLUENCING THE FOOD LIST CONSTRUCTION:

A Importance of food culture and meaning of food when collecting food lists.

"FOREST FOODS (INCLUDING MEDICINAL PLANTS) ARE PART OF (OUR) CULTURE AND (OUR) SENSE OF COMMUNITY" (BATWA FGD, FEMALE PARTICIPANT)



B Food type and consumption change overtime, and they are influenced by climatic, environmental and demographic changes.

Type of Food (Common Names)	Wet Season (Mid-January-End of February)	Dry Season (End of February-Mid May)	Wet Season (Mid-May- Mid August)	Dry Season (15th Mid-August-15th Mid-January)
Cassava				
Maize				
Millet				

C Dietary transitions can be due to displacement and market influence

"WE USE A NEW FOOD, MAIZE FLOUR" (BAKIGA FGD, MALE PARTICIPANT)

D Frequency of meals and foods type consumed is linked to social context

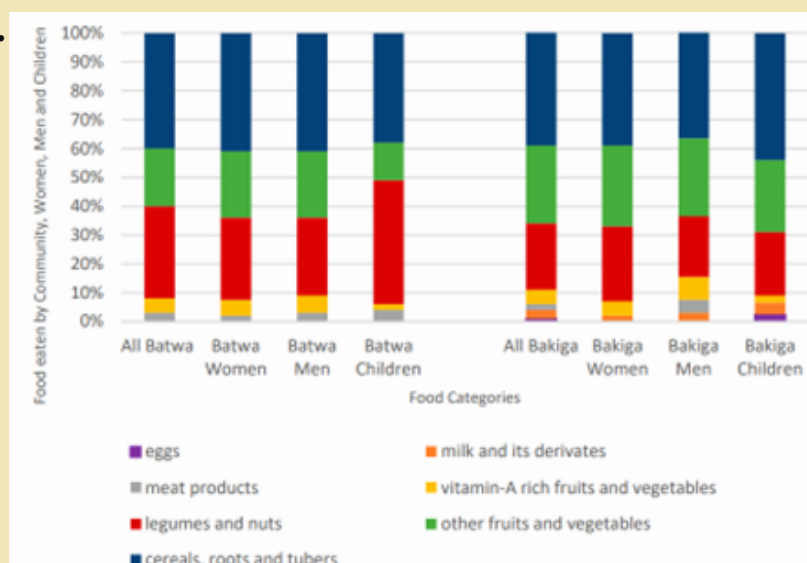
"I AM A TEACHER AT SCHOOL; THUS, I EAT TWO MEALS (BREAKFAST AND LUNCH) WHEN I WORK, BUT OVER THE WEEKEND IS DIFFERENT" (BAKIGA INDIVIDUAL INTERVIEW, MALE PARTICIPANT)



E Tools to measure portion sizes vary among individuals and are influenced by social and cultural context.

"ONE KILO OF BEANS NOW IS SHARED BY 8 PEOPLE AND BEFORE BY 3" (BATWA FGD, MALE PARTICIPANT)

Category of foods consumed by the Batwa and Bakiga.



5

CONCLUSIONS

Locally validated information on **foods** can provide **results** that **differ** from foods listed in the national **food composition tables**. **Without** using a **community-based approach** to understanding socio-environmental contexts, we would have **missed 33** Batwa and Bakiga's **recipes and foods**, and we would not have known the **variety of ingredients'** quantity in each recipe, and **traditional foraged foods**.

