



World Food Programme

SAVING  
LIVES  
CHANGING  
LIVES



WFP/Shannon Haye

# Fill the Nutrient Gap Analysis

How HCES data are used

14 October 2022





Analytical process to understand **drivers affecting availability, cost, and affordability of nutritious diets**

Assesses **multi-sectoral solutions** for improving affordability of nutritious foods and quantifying potential impact

Uses systems approach **to inform programmes, policies and actions** to improve diets and nutrition with a **focus on the most vulnerable**

**Convenes multi-sectoral stakeholders** and make recommendations to policymakers

# FNGs have been carried out in over 40 countries

**Completed**  
**Ongoing**  
Sept 2022  
**CotD Only**

Guatemala  
El Salvador  
Ecuador  
Dom. Republic

**Special Focus**

*Refugees*  
Bangladesh  
Uganda  
Rwanda  
Burundi  
Kenya  
*Programme Specific*  
Indonesia – SSN  
Uganda – Karamoja  
Ethiopia – FFV  
Niger – Resilience

Ghana  
Niger  
Burkina Faso  
Mali  
Mauritania  
Guinea-Bissau  
Cameroon

Chad  
Nigeria

Tanzania  
Mozambique  
Madagascar  
Lesotho  
DRC  
Zambia  
Namibia

Zimbabwe

Malawi

Kyrgyzstan  
Tajikistan  
Tunisia

Syria  
Armenia

Somalia  
Uganda  
Rwanda  
Burundi  
Ethiopia  
Kenya

Ethiopia (refugee)  
Djibouti

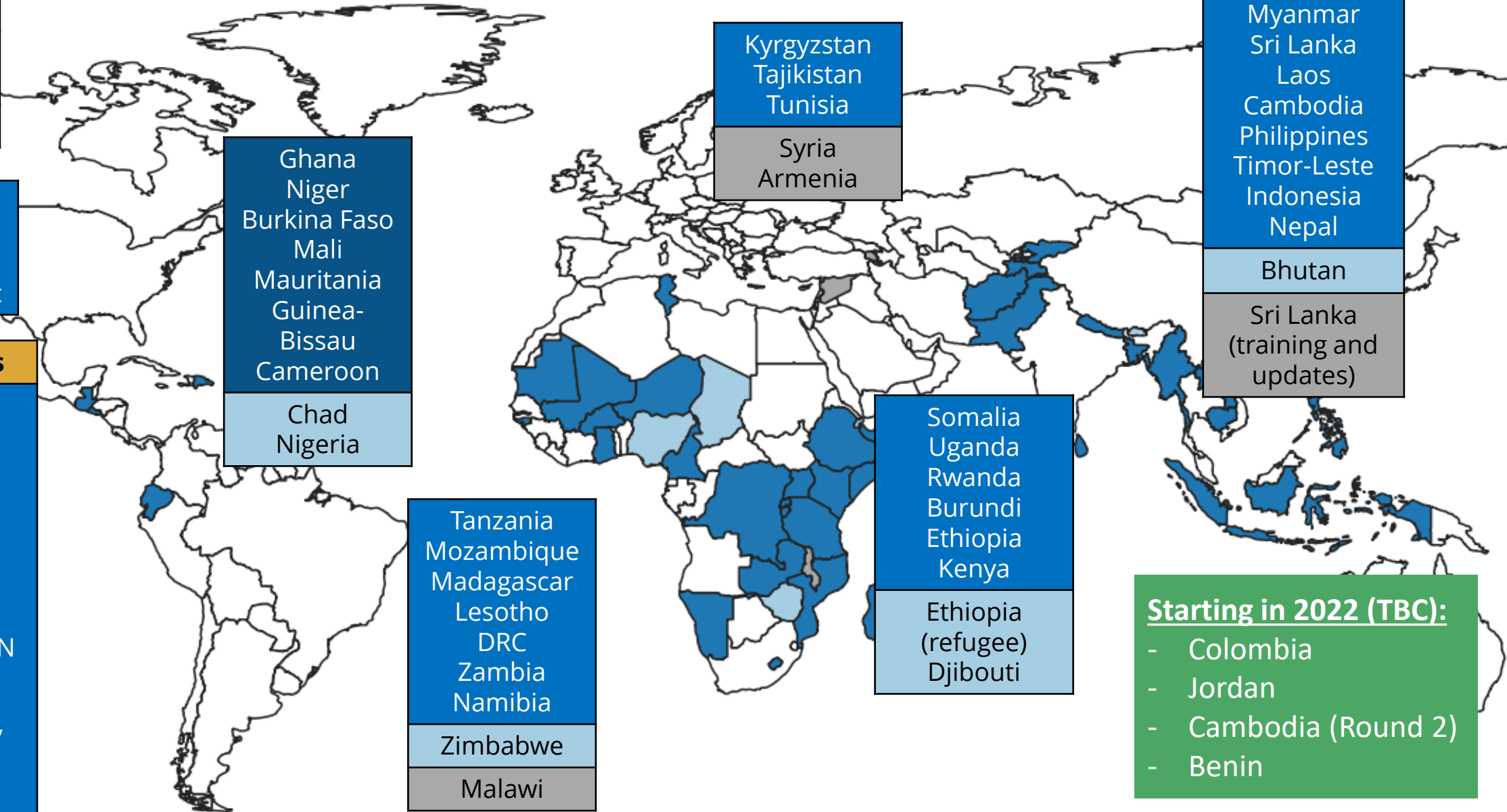
Afghanistan  
Pakistan  
Bangladesh  
Myanmar  
Sri Lanka  
Laos  
Cambodia  
Philippines  
Timor-Leste  
Indonesia  
Nepal

Bhutan

Sri Lanka (training and updates)

**Starting in 2022 (TBC):**

- Colombia
- Jordan
- Cambodia (Round 2)
- Benin



# The FNG Analytical Framework

Consultation with stakeholders

## Secondary Data Analysis

Are nutritious foods available, accessible and chosen for consumption?

- Information about Food Systems
- Database, reports, peer-reviewed articles, grey literature

## Cost of the Diet Analysis

What does a nutritious diet cost and is it affordable?

Price data

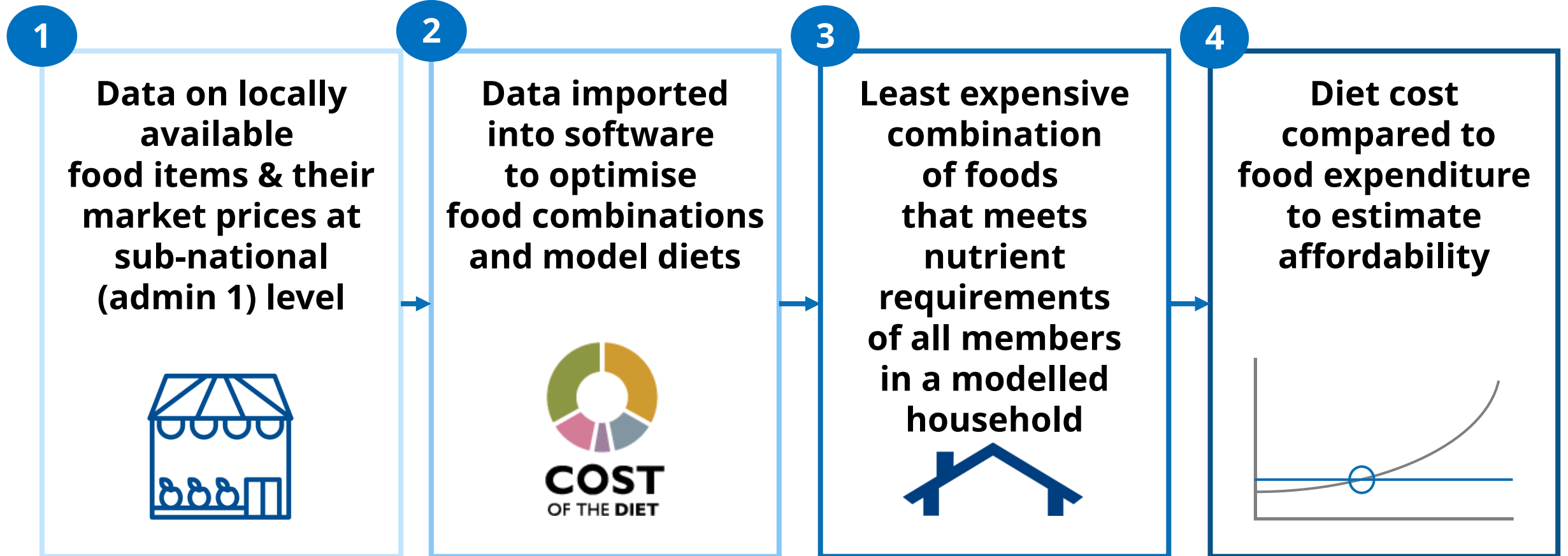
Expenditure data

Identify possible interventions  
And entry points

Estimate minimum cost of nutritious  
diet and economic accessibility

Understand the challenges  
Model interventions to improve access and affordability of nutritious diets  
Inform a prioritization of interventions across sectors

# Cost of the Diet estimates the minimum cost of meeting the nutrient requirements of a household with locally available foods



# Size and composition of modelled household

## 5 person household

1. Child 12-23 months
2. School-age child 6-7 years
3. Adolescent girl 14-15 years
4. Adult woman (lactating)
5. Adult man



# Cost of the Diet estimates the minimum cost of meeting the nutrient requirements of a household with **locally available foods**

**Data on locally available food items & their market prices is imported into the software for linear optimisation**



## Data requirements

- Retail prices
- At least 60 items
- Good diversity of food items from all food groups
- Fresh/raw foods (not already cooked)
- Weighed (to allow for calculation per 100g)
- Geographically representative

## Data sources

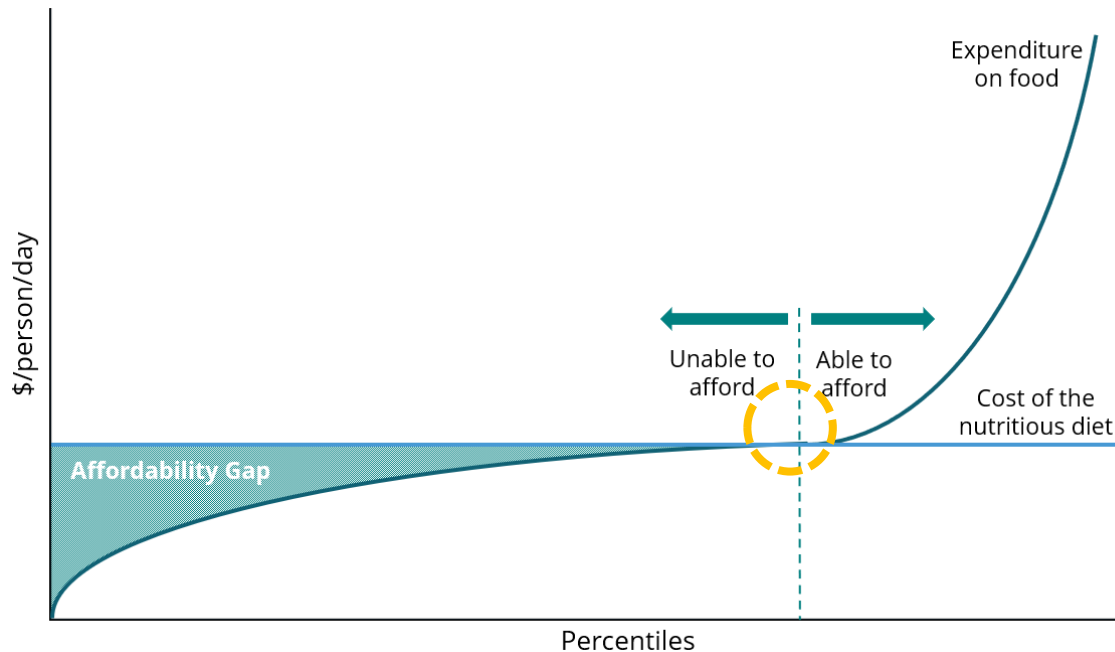
Market monitoring / CPI data (preferred)

Primary data collection (from markets)

Prices/unit cost calculated from HCES



# Estimating non-affordability and the affordability gap: Diet cost is compared to **food expenditure**



## Data requirements

- Representative of geographic level of interest (region)
- Household size to calculate expenditure per capita
- Expenditure divided into food and non-food
- Adjusted using food CPI to match price levels with point in time of price data

## Data sources

- Already available HCES data
- Primary data collection for specialised FNGs

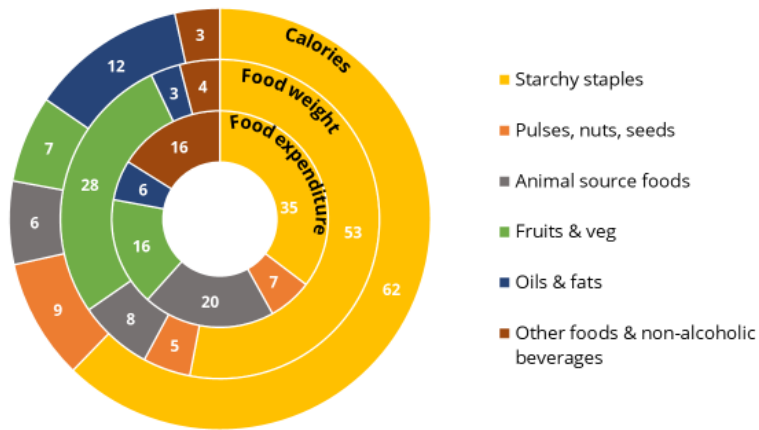


# Understanding current food consumption and dietary patterns

## Characterising diets

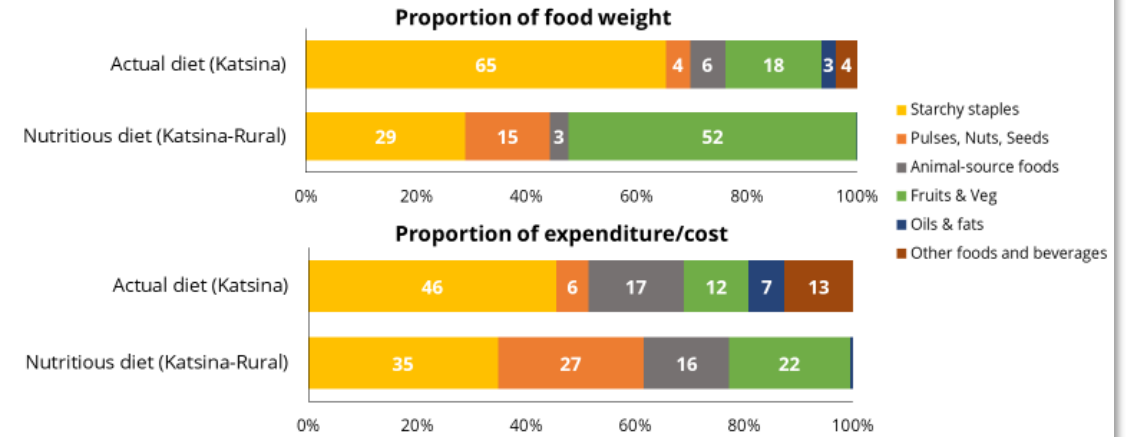
Average diets [foods consumed at home], by food group (2018-19)

Expenditure on animal source foods is 20% of total expenditure but only provides 6% of calorie intake reflecting their relatively higher caloric prices



Analysis based on NLSS 2018-19

## Comparing to nutritious diet / healthy diet



FNG 2021, NLSS 2018-19 (foods consumed at home), optimised diet excludes breastmilk

For Minimum Expenditure Basket

# Examples of HCES data used in recent FNGs

## Prices

- **Zimbabwe** – Poverty, Income, Consumption and Expenditure Survey 2017
- **Indonesia** - SUSENAS March 2019

Bangladesh, Kyrgyz Republic, Mozambique, Pakistan, Rwanda, Uganda, Indonesia, Zimbabwe ...

## Food expenditure

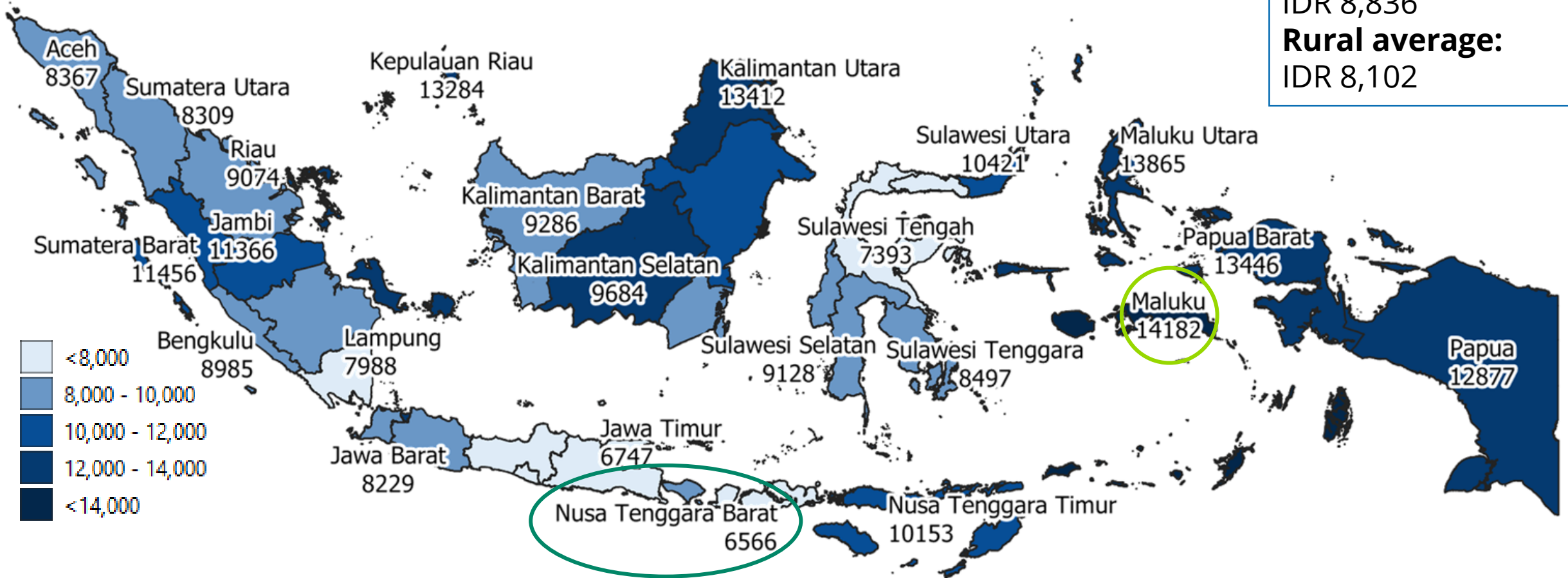
- **Nigeria** – Nigeria Living Standards Survey 2018-19
- **Ghana** – Comprehensive Food Security and Vulnerability Assessment 2020
- **Zimbabwe** – Poverty, Income, Consumption and Expenditure Survey 2017
- **Indonesia** – SUSENAS March 2019

And many others..

# Indonesia: Nutritious diet cost across provinces

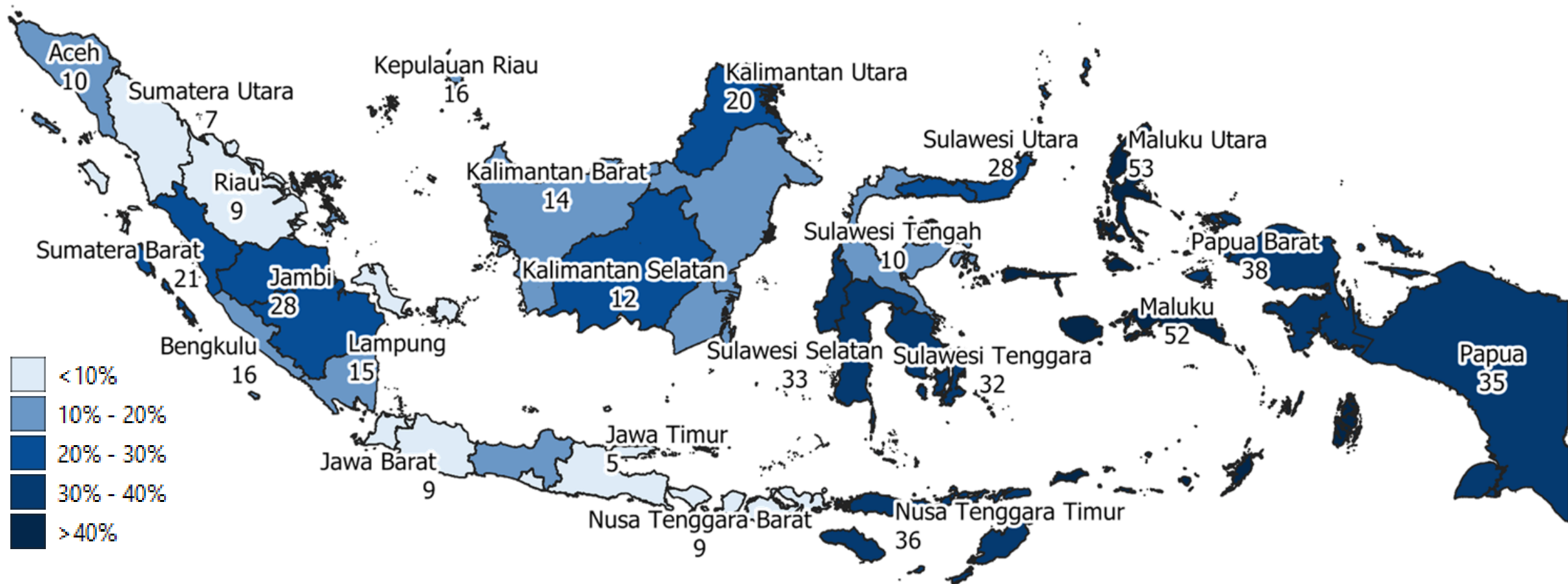
*Average cost per province of the nutritious diet  
(IDR/capita/day)*

**Urban average:**  
IDR 8,836  
**Rural average:**  
IDR 8,102

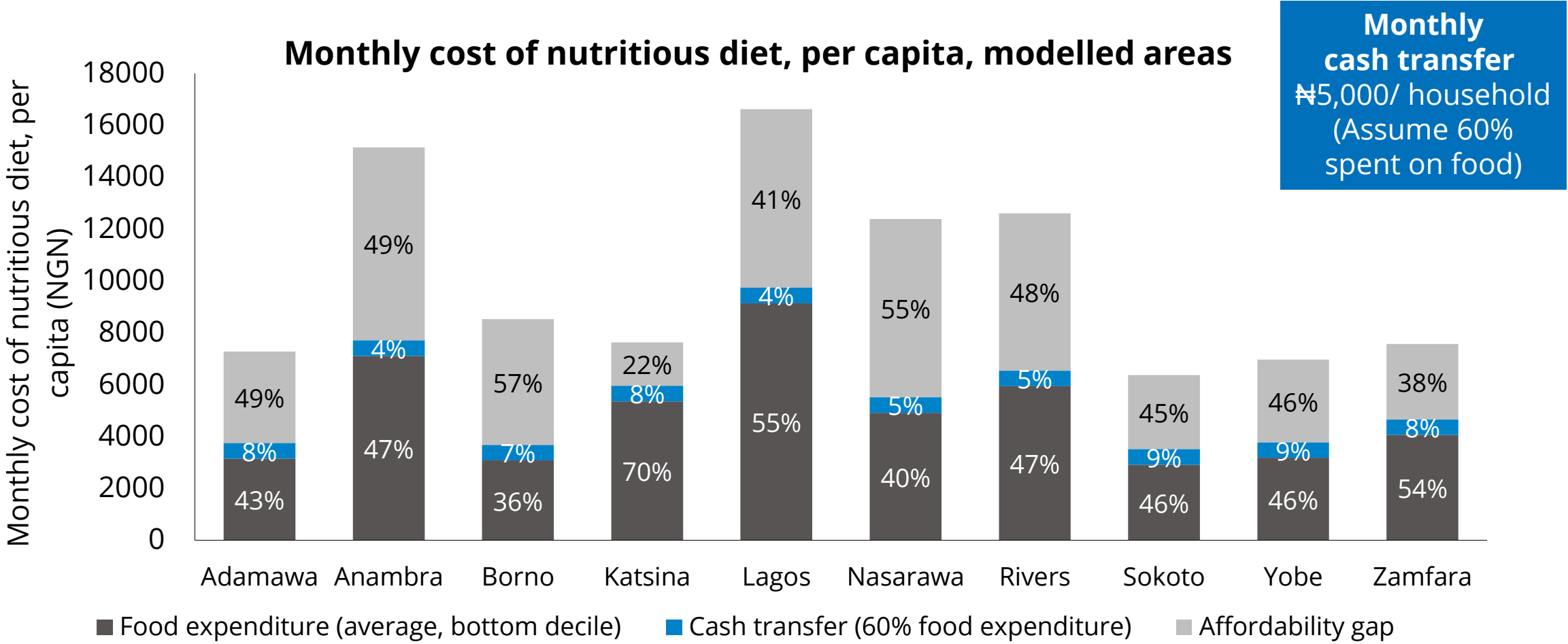


# Indonesia: non-affordability across provinces

*Non-affordability of the nutritious diet,  
provincial average (%)*



# Nigeria: affordability gap for households with the lowest food expenditure (bottom 10 percentile)



## New project which will draw upon HCES data

MIMI proposes to help close **gaps in the LSFF data landscape** by **modelling and mapping a novel index** for overall risk of **inadequate micronutrient intake**, to inform **national-level decision making** on LSFF (the need & the potential contribution).



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<https://www.wfp.org/fillthenutrientgap>

