

# New metrics for the evaluation of SDG2:

Insights from the FSIN Technical Working Group  
on Measuring Food and Nutrition Security  
(and many other projects\*)

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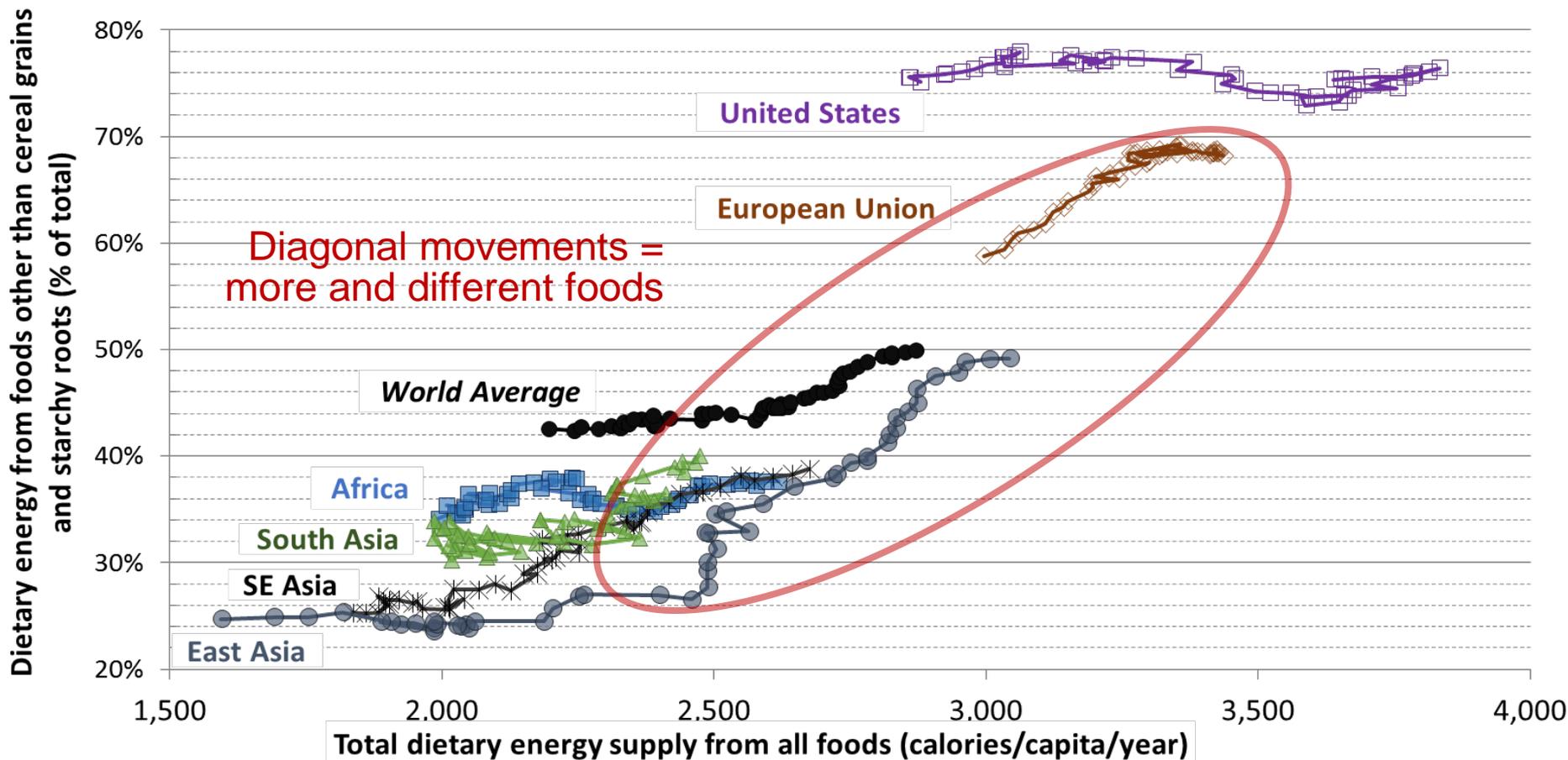
\* Especially building on [www.nutritioninnovationlab.org](http://www.nutritioninnovationlab.org),  
[www.lcirah.ac.uk/Immana](http://www.lcirah.ac.uk/Immana), and [www.globaldietarydatabase.org](http://www.globaldietarydatabase.org)

Rome-Based Agencies (RBAs) Technical Seminar on Evaluation of SDG2  
IFAD Headquarters – 17-18 November 2015



# The diet quality revolution, 1961-2011

Percent of energy from non-staple foods and total dietary energy by region, 1961-2011  
(FAO Food Balance Sheet estimates)



Source: Author's calculations from FAO Food Balance Sheets,  
<http://faostat3.fao.org/download/FB/FBS/E> (June 2015).

# The data revolution: Are we ready?

- FSIN launched in Oct. 2012, to improve information flow among food security practitioners and policymakers in developing countries (<http://fsincop.net>)
- TWG formed in Nov. 2014, to assess and recommend improved indicator formulas and data sources to measure food and nutrition security
  - **Technical Working Group** (6 members): Uma Lele (chair), Will Masters (co-chair), Joyce Kinabo (Sokoine Univ.), J.V. Meenakshi (Delhi School of Economics), Bharat Ramaswami (Indian Statistical Institute), Julia Tagwireyi (independent)
  - **Expert Advisory Panel** (14 members), from diverse regions and fields of expertise
- Three phases of work through June 2016:
  - (1) **User's guide to the indicators**: Technical assessments, forthcoming Dec. 2015
  - (2) **Demand elicitation survey**: Priorities for measurement by user group, Jan 2016
  - (3) **Gaps and needs analysis**: Agenda for data collection and research, Spring 2016
- Focus today is on evaluation of dietary quality, in context of other dimensions



# Indicators in the FSIN TWG User's Guide to Measuring Food and Nutrition Security

Classification based on primary source of initial observations:

**1. National data** (12 indicators, plus 5 composite indices)

Originate in country-level official statistics, e.g. from national accounts and trade volumes

**2. Market observations** (4 indicators)

Collected at the level of a marketplace, e.g. prices

**3. Household and individual recall** (14 indicators)

Responses to questions at the level of a family or other unit, or for individuals within the household

**4. Anthropometry** (7 indicators)

Measures of body size, e.g. heights, weights, mid-upper arm circumference or waist circumference

**5. Biomarkers and clinical data** (3 indicators)

Indicators based on health care services or fluid samples, e.g. blood

**6. Breastfeeding and sanitation** (4 indicators)

Observations relating to mother-child relationships or environment around the household



# Our focus today: Diet quality

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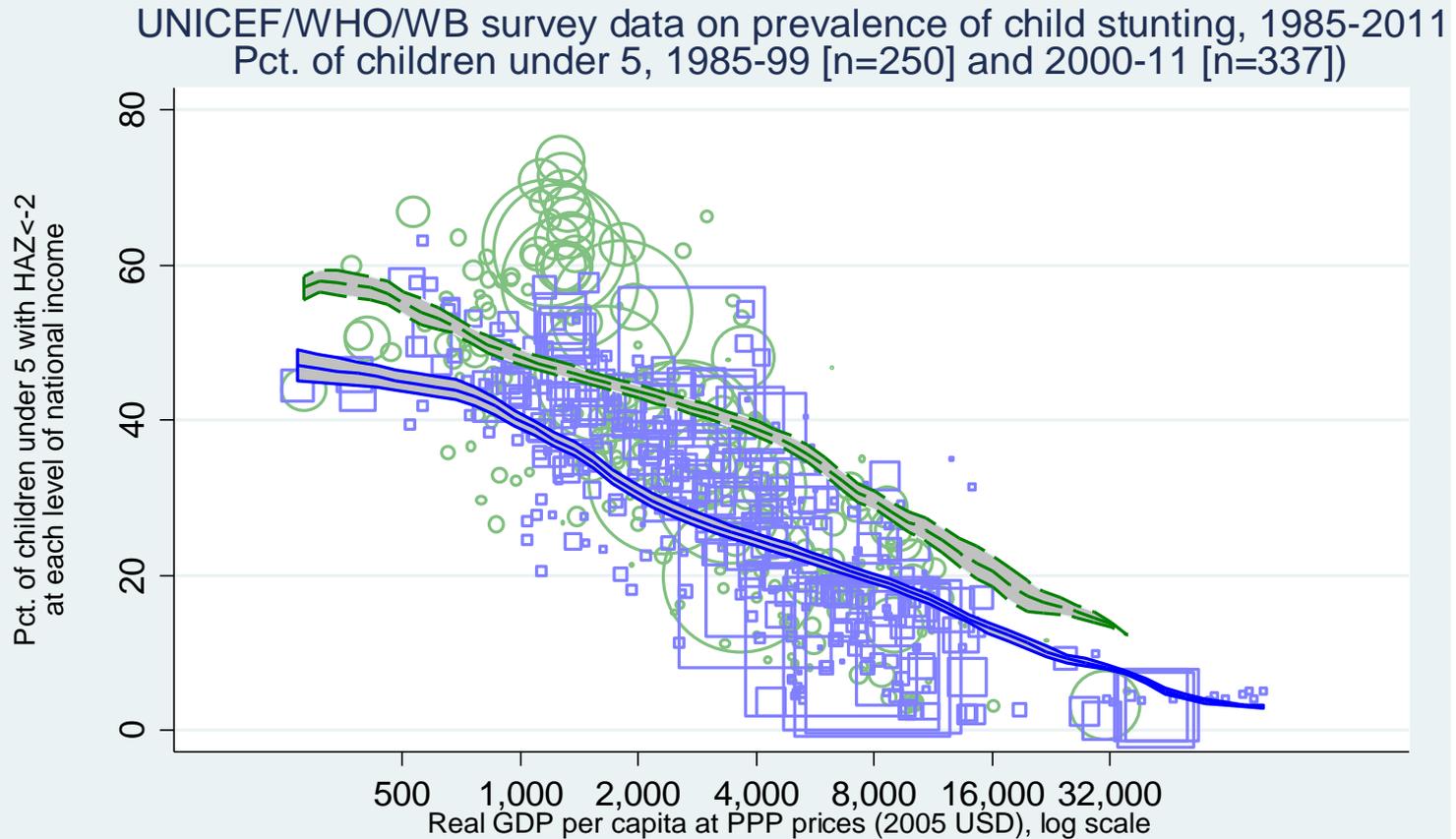


# For discussion today and tomorrow: Some initial conclusions

- 1. Total energy (kcal/day)** remains a key diagnostic measure
  - Low intake may be caused by many kinds of deprivation (e.g. anemia)
  - Remedy may not be additional calories (e.g. if cause is anemia)
- 2. National average quantities (g/day)** remain indispensable
  - Data revolution can transform estimation of production and losses
  - FBS estimates of mean per-capita intake can be better than surveys
- 3. Market-level price indexes** offer a new frontier
  - Data revolution allows collections of more frequent prices of more diverse foods
  - New price indexes can measure affordability (cost of food/day of work) and access to more nutritious diets (cost of nutritious foods/other products)
- 4. Household and individual observations** are still very difficult to collect!
  - Data revolution lowers cost but accuracy is still limited
  - Food frequency data for dietary diversity, intake quantities for dietary patterns and nutrient adequacy remain focus of survey data collection

*For SDG2, all this can be linked to anthropometry, biomarkers and the environment, then tied to policy change, public investments and private-sector activity*

# Grounds for optimism: Great success with MDG1, lots of data for SDG2



Note: Symbols are sized by population, with decades shown by green circles for 1986-99 (250 surveys in 103 countries) and blue squares for 2000-2011 (337 surveys in 117 countries). Lines show local means and confidence intervals for each period estimated by `-lpolyci`, weighted by population and with a bandwidth of 0.75.

Source: World Bank, WHO and UNICEF joint data; GDP and population are from PWT 8.1.

Data visualization from W.A. Masters et al., "Nutrition Transition and Agricultural Transformation: A Preston Curve Approach", forthcoming in *Agricultural Economics* (2016).

thank you!



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