



Photo: Renni Kahane



Photo: Anna Herforth

The Agriculture-Nutrition Evidence Base: Getting where we want to be, Starting from where we are

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CGIAR Science Forum
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Where we want to be

- Knowing what to do, how, and where in agriculture, to:
 - Increase access to nutritious diets
 - While reducing poverty (attention to gender)
 - And managing natural resources well
- And gaining political commitment to do it
 - Through advocacy, initiatives and partnerships

We've been trying to get there for quite some time

“The goal of freedom from want of food, suitable and adequate for the health and strength of all people can be achieved...The primary responsibility lies with each nation for seeing that its own people have the food needed for life and health...but each nation can fully achieve its goal only if all work together.”

-Food conference at Hot Springs, VA, 1943

Where we are

- Increasingly agreed, broadly, how agriculture should be able to improve nutrition
 - Theory of change becoming more consistent and explicit
- Current evidence generation will improve knowledge, but still missing some key pieces
- High level political commitment to nutrition, agriculture, and agriculture for nutrition – more than ever before
 - Need to translate this to agriculture decision-makers

42 SUN Early Risers: Two approaches

1. Scale-up evidence-based cost-effective interventions:

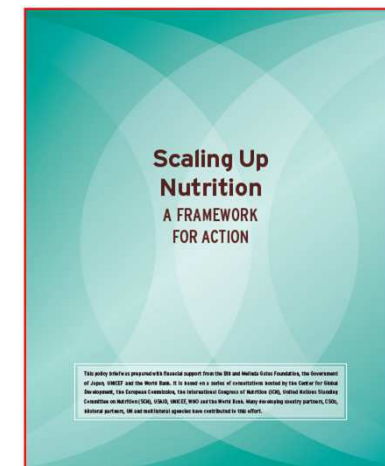
Nutrition-specific

- For prevention and treatment
- Highest priority to the “minus 9 to 24 months window of opportunity” (1,000 days)
- Very well-defined
- Lancet 2013 estimates these address ~20% of undernutrition

2. Take a multi-sectoral approach:

Nutrition-sensitive

- Agriculture, Social protection, Health, Education, Water and sanitation...
- No clear statement on what needs to be done



NUTRITION FOR GROWTH

Beating hunger
through business
and science

- \$4.2 billion for nutrition-specific activities
- \$19 billion for nutrition-sensitive investments (majority are agriculture)
- Creation of a Global Panel on Agriculture and Food Systems

New Alliance for Food Security and Nutrition

- G8 2012 - \$5B of new investments
- Supposed to add to the \$22 billion for agriculture committed at L'Aquila in 2009



"I think you should be more explicit here in step two."

Key Recommendations for Improving Nutrition through Agriculture



Key Recommendations for Improving Nutrition through Agriculture

1. **Incorporate explicit nutrition objectives and indicators** into their design, and track and mitigate potential harms.
2. **Assess the context** at the local level, to design appropriate activities to address the types and causes of malnutrition.
3. **Target the vulnerable and improve equity** through participation, access to resources and decent employment.
4. **Collaborate with other sectors** (health, environment, social protection, labor, water and sanitation, education, energy) and programmes.
5. **Maintain or improve the natural resource base.** Manage water resources in particular to reduce vector-borne illness and to ensure sustainable, safe household water sources.
6. **Empower women.**
7. **Facilitate production diversification**, and increase production of nutrient-dense crops and small-scale livestock.
8. **Improve processing, storage and preservation** to retain nutritional value and food safety, to reduce seasonality and post-harvest losses, and to make healthy foods convenient.
9. **Expand market access for vulnerable groups**, and for marketing nutritious foods.
10. **Incorporate nutrition promotion and education** that builds on existing local knowledge, attitudes and practices.

Agriculture and Food Policy Support to Nutrition

- 1. Increase incentives (and decrease disincentives) for sustainable production, distribution, and consumption of diverse, nutritious and safe foods.**
 - Focus on horticulture, legumes, and small-scale livestock and fish – foods which are relatively unavailable and expensive, but nutrient-rich.
- 2. Monitor dietary consumption and access to diverse, nutritious, and safe foods.**
 - Food prices of diverse foods, dietary consumption indicators
- 3. Include measures that protect and empower the poor and women.**
 - Safety nets, Land tenure rights; Equitable access to productive resources
- 4. Build capacity in human resources and institutions** to improve nutrition through the food and agriculture sector, supported with adequate financing.
- 5. Support multi-sectoral strategies to improve nutrition** within national, regional, and local government structures.

CAADP

Regional Workshops and National Plans

- NEPAD initiative to strengthen capacity for addressing nutrition through National Agriculture and Food Security Investment Plans
- Capacity-building workshops in West, Eastern, and Southern Africa, 2011-2013
 - Partnership with GAIN, FAO, USAID, BMGF, many others



African Union



NEPAD

A PROGRAMME OF THE AFRICAN UNION

NEPAD Planning and Coordinating Agency (NPCA)

Especially where high-level commitment already expressed:

What can agriculture be accountable for?

- Improve food systems (make healthy diets affordable and convenient)
- Improve diets
- Empower women
- Protect and improve natural resources (water quality, food biodiversity)
- *Income not sufficient; stunting too much (involves other factors)*



Nutrition Indicators in Agriculture Survey

Anna Herforth and Terri Ballard
FAO consultants

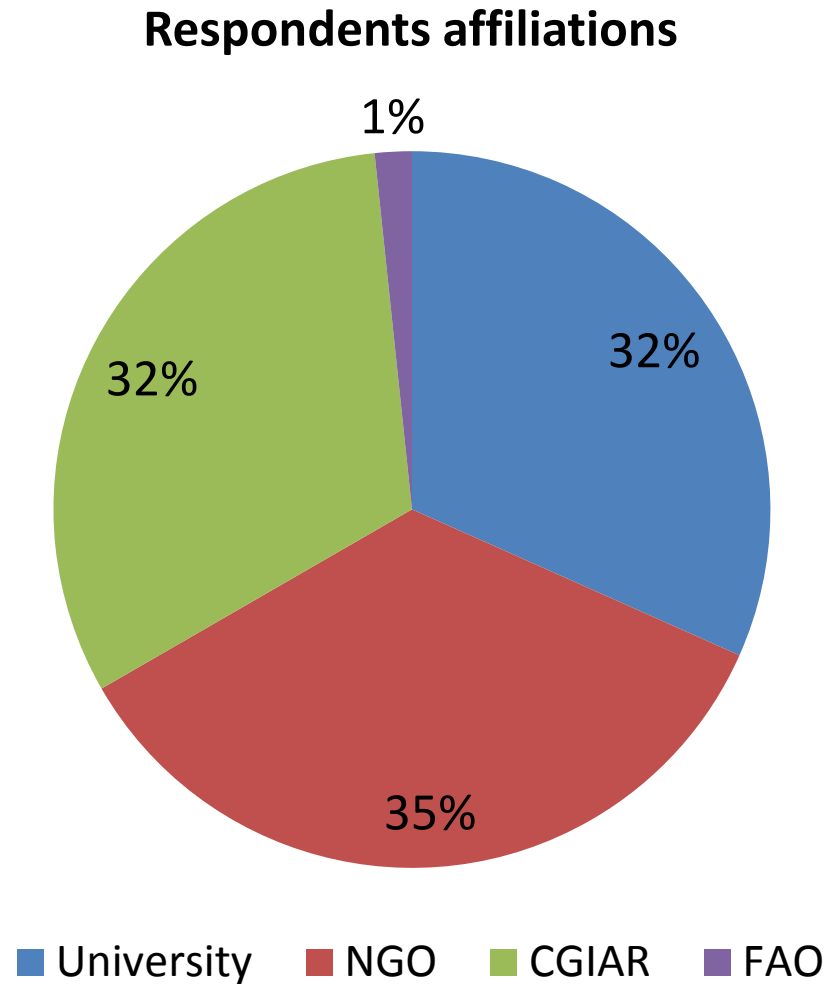
*Funded by the EU-FAO Improved Global Governance for
Hunger Reduction Programme (2012-2015)*

Nutrition indicators in Agriculture projects - Survey

- Aim: to understand how agriculture projects will measure impact on nutrition: which indicators are being used, how, and why
- Follows up on DFID-funded LCIRAH mapping study
 - 50% of studies identified were applicable
 - Excluded secondary data analysis, unspecified research, unfunded projects, projects where M&E not yet planned

Results: Response

- 76 project PIs contacted
- 67 responded (88%)
 - 7 of these excluded (incomplete data, project cancelled)
- 60 with complete data



Results: Indicators

Type of measure	% measuring	Notes
Food consumption or diet	95%	Many measuring HDDS, WDDS, and IDDS for kids; MAD; intake of specific foods
Food security	71%	HFIAS, HHS, seasonality, coping strategies
Economic outcomes	69%	of these, 2/3 disaggregating by gender
Women's empowerment or labor	53%	Decision-making, sales or assets, time use, qualitative assessments; a couple using/testing WEAI
Natural resource management	29%	Few indicators described; e.g. use of soil and water conservation practices
Nutritional status	76%	stunting , underweight, wasting, BMI, anemia, serum retinol

Results: Design

- Majority are measuring in a comparison population (~75%)
- Sample sizes range from 120 to 7700 (most in range of 300-500)

What will we learn about stunting?

- Perhaps not much
- Only about 7 studies with counterfactual have adequate power to observe a 20% decline in stunting over 5 years
 - *If* activities actually can produce that much of a decline
 - Only 2-3 studies have adequate power to observe a decline in stunting of <20%
 - *In most studies, improving diets or child feeding is the main hypothesized pathway*

What will we learn about diet?

- Probably something
- Sample sizes more appropriate for dietary impact
 - For example: 27 studies have adequate power to observe a 10 percentage point change in prevalence of children achieving minimum dietary diversity (4 of 7 food groups)
- Pathways to dietary change clearer and more linked to agricultural intervention
- Will only learn about diets in farmer households

Won't learn enough about:

- Women's empowerment
 - We may learn how to measure it better
- Natural resource management for healthy environments
 - Very little systematic thinking about this so far; only 4 projects measuring water access or quality

Bigger picture not addressed

- This sample describes projects *that set out to affect nutrition*
- It does not describe larger agriculture programs or investments where nutrition is not necessarily the primary goal
- Most current evidence and research stops at farmgate, largely ignores modifying factor: food environment

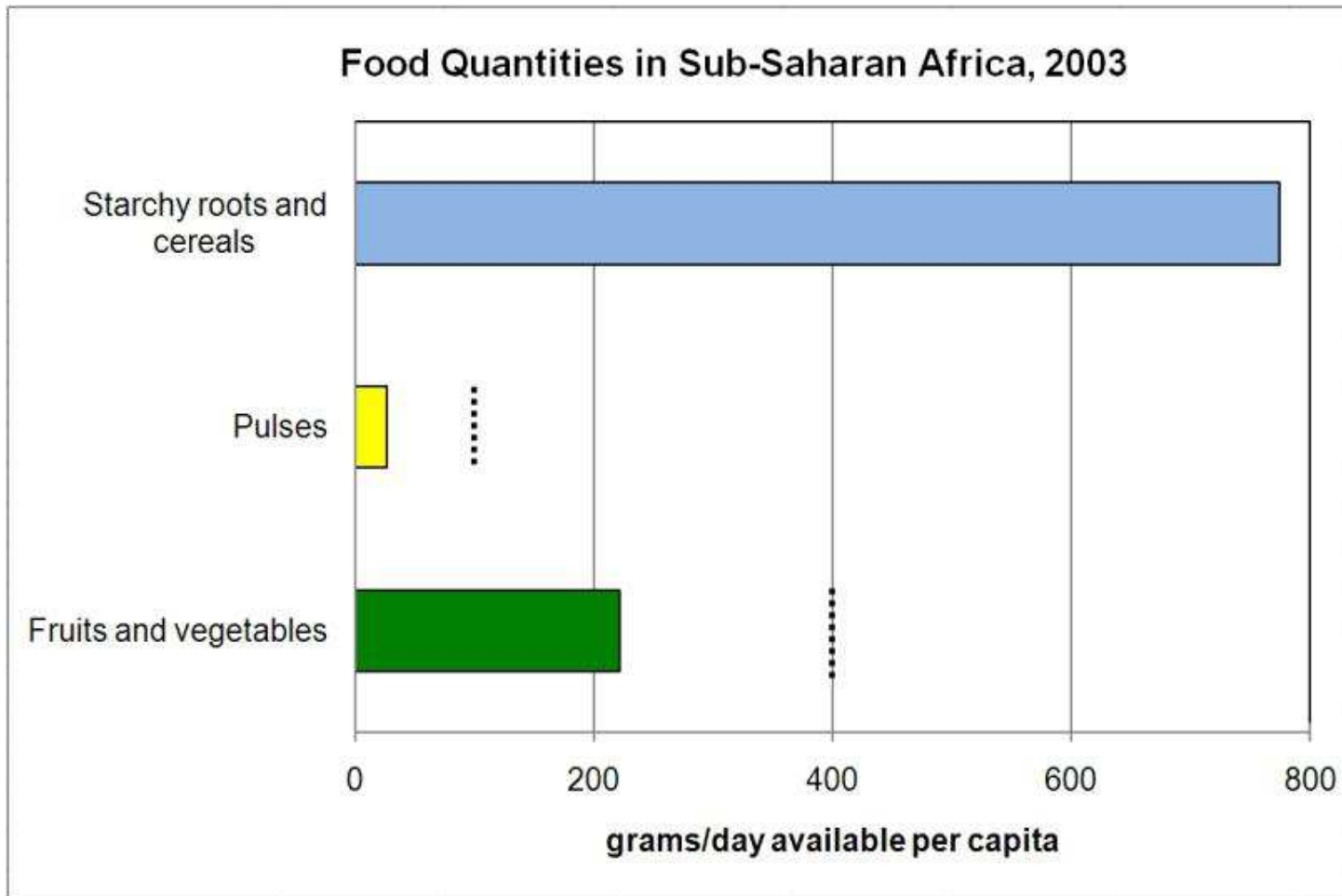
Recap: Where we want to be

- Knowing what to do, how, and where in agriculture, to:
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Getting where we want to be

- Build evidence base: what can be done to make nutritious diets easier to obtain? Where incentives are tried, how do they affect production, prices, products, diets?
- May require new kinds of monitoring/ assessment
- Need to be looking at whole investment portfolios, not only project by project
 - What kind of food system is being supported?
 - At food systems level, indicator totally out of synch with vision of access to nutritious diets for all

Low availability and high prices of diverse diets



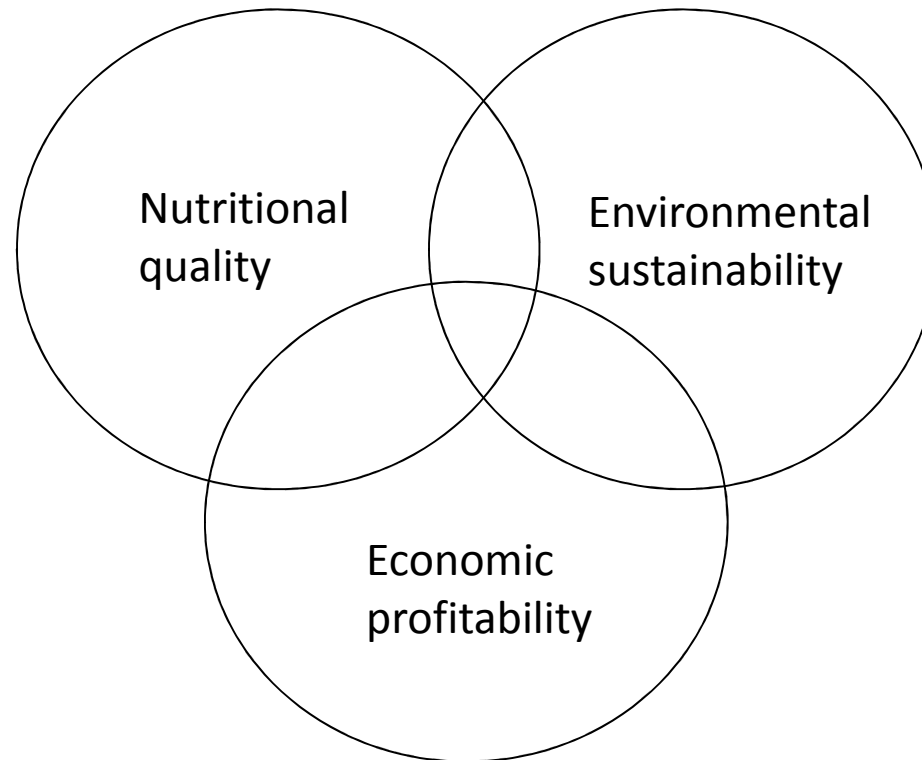
Source: Herforth 2010, based on FAO data

Getting where we want to be, cont'd

- Measure diet quality, women's empowerment, and water resources
 - Those are laudable goals
 - In most cases, study is only powered for these
 - What agriculture can be accountable for (and what it might agree to)
- Partnerships to support M&E of large ag investments that are not research projects per se
 - Need to learn from them
 - Need to ensure no harm
 - Accountability



THE SACKLER INSTITUTE
for NUTRITION SCIENCE



Policies and programs can move these circles closer together or farther apart

