



Linking Agriculture to Nutrition in Northern Rwanda

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Agricultural Productivity \neq Food Security

N

Map of unacceptable food consumption and child stunting
Ref: Rwanda CFSVA, 2012

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Cyuve, Musanze



Democratic Republic of Congo

Uganda

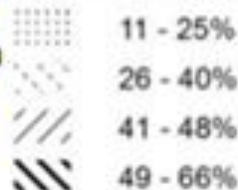
Tanzania

Burundi

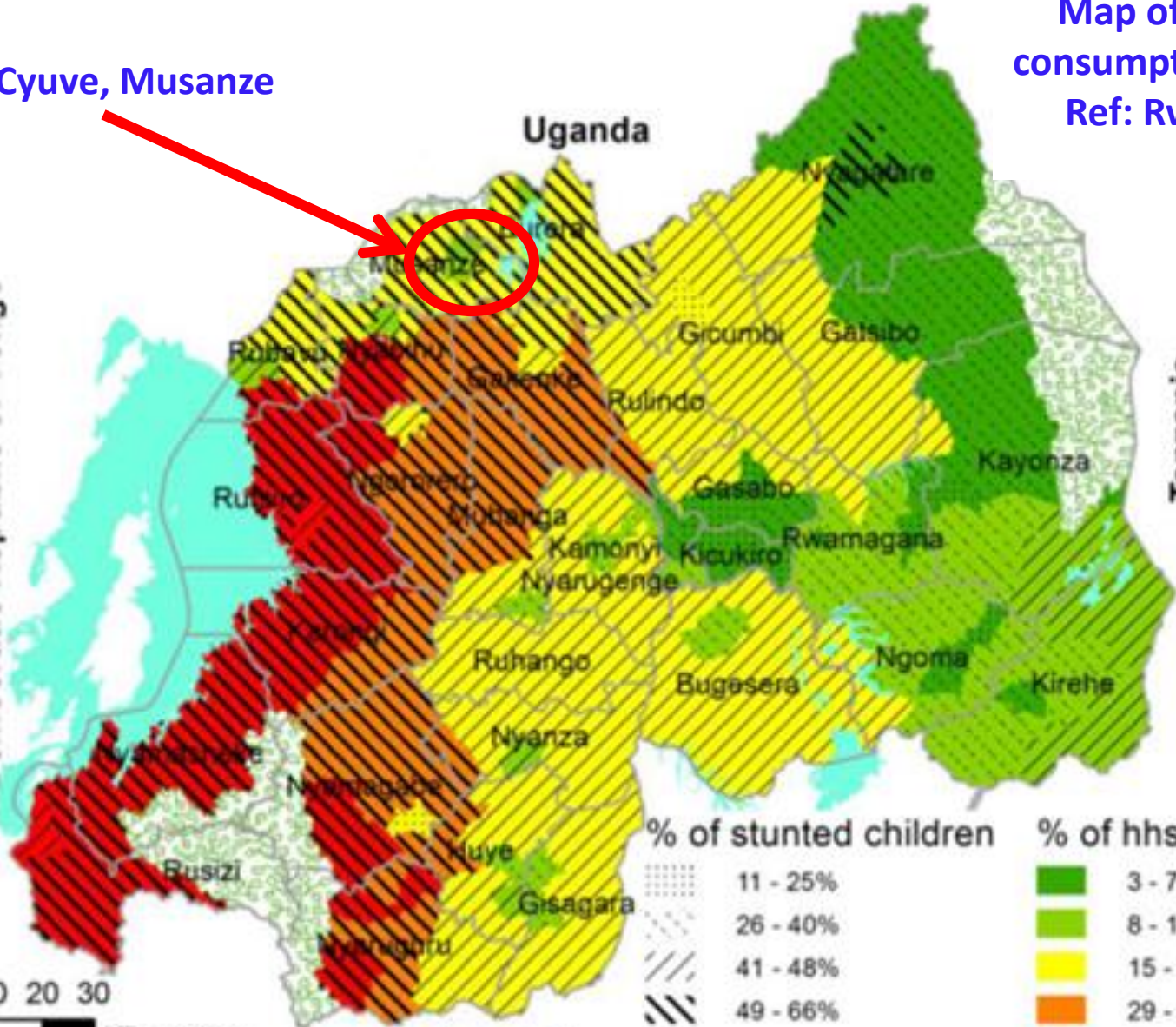
0 5 10 20 30

Kilometres

% of stunted children

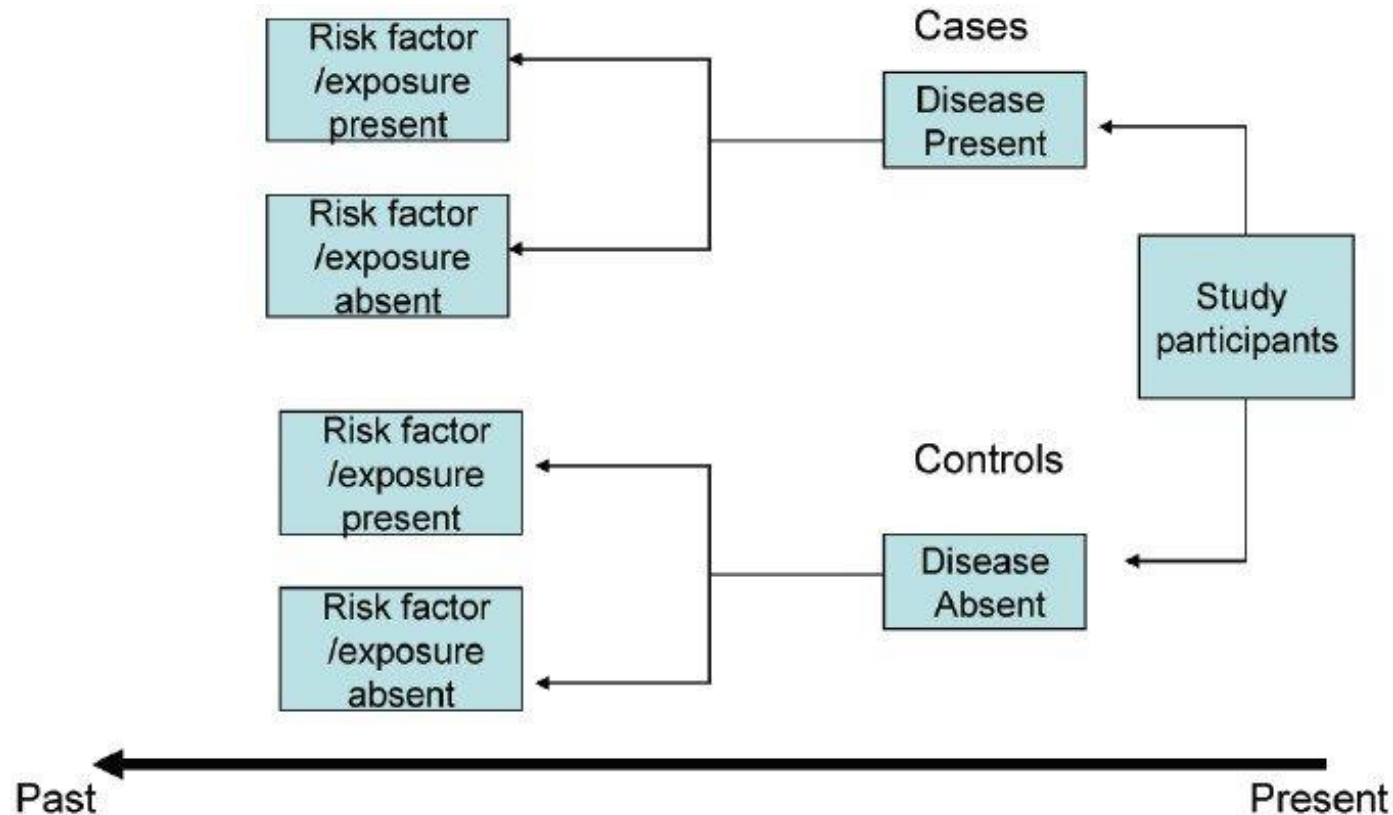


% of hhs with unacceptable FC



Understanding Childhood Stunting in Rwanda

What are the risk factors for stunting in children under 24 months?



Survey Organization and Objectives: Government and partners; Linking agriculture to nutrition

Location: National scope, only Northern province data presented; 36 villages

Household listing: Listed all eligible households in enumeration sites provided by NISR

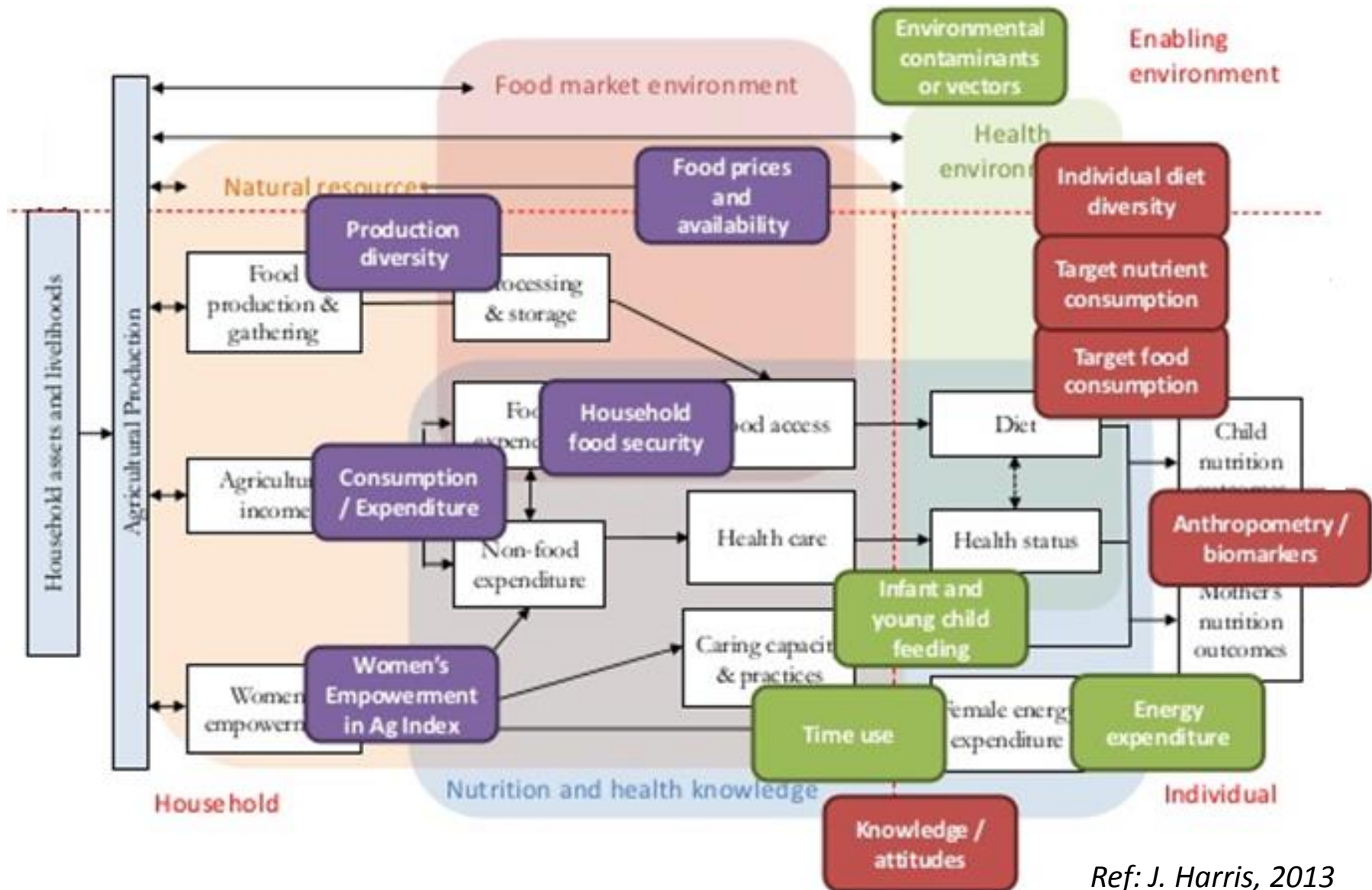
Screening of eligible households : Households with child(ren) under 60 months (n = 1961)

Selection of cases and controls: Households with child(ren) under 24 months (n= 937)

Enrolment: Random selection of cases (HAZ, n = 152); matched to control (sex, age, location)

Selection of Study Indicators

Integrated research on Nutrition (food, care, & health), Markets (agricultural production, livelihoods) and Gender (empowerment)



Is Agriculture linked to Nutrition?

Evidence from Northern province of Rwanda; the association between household livelihood activities and stunting in children under 24 months

	Cases		OR	95% CI	p
	N	%			
Livelihood activities					
Livelihood activities other than agriculture (n=95)	36	37.9	1.00		
No livelihood activity (n=29)	13	44.8	1.33	[0.57-3.08]	0.505
Agriculture as main livelihood activity (n=444)	240	54.1	1.93	[1.22-3.04]	0.005
Agriculture as second livelihood activity (n=45)	17	37.8	1.00	[0.48-2.07]	0.989
Total (n=613)	306	49.9			

In the Northern province, which is the bread basket of Rwanda, the risk of a child under 24 months being stunted increases by 1.93 (unadjusted odds) if the main source of livelihood to the household is agriculture

Linking Agriculture to Nutrition: The disconnect

Addressing the Knowledge, Attitudes, and Practices of Farming Households

Route	Constraints	Opportunities
Own food production for household intake	Many low-income households tend to use/view crops and livestock as an asset base, as opposed to an immediate source of food	Extension advice: nutrition education services stressing importance not just of growing, but also of consuming a diversity of foods.
	Poor production diversity, with limited integration of crop-livestock –aquaculture	
Agricultural incomes directed towards food and health expenditures	Food expenditure is not a priority in many households and as such, reductions in income poverty do not generally result in proportional reductions in malnutrition	Make agriculture more remunerative; social behavioral change communication to prioritize nutrition
Women employment in Agriculture	Women are disproportionately positioned in segments of the value chain that are labor intensive, resulting in high energy expenditure	Need to promote female friendly farming practices and technologies; move women to more profitable segments of the value chain

Reflection



Proposed Action Plan

1. The data analyzed reflect a **disconnect in the linkage between agriculture to nutrition** outcomes
 2. What kinds of **policy changes** would be needed to leverage agriculture's contribution to nutrition?
 3. What kinds of **programming changes** would be needed to leverage agriculture's contribution to nutrition?
1. Determine critical pathways linking agriculture to nutrition in Rwanda and attach explicit **health and nutrition goals** to these components
 2. Review existing **policy documents and action plans for nutrition** against the 5 key recommendations for improving nutrition through agriculture (FAO, Ag2Nut COP, 2013*)
 3. a) Upgrade current **programs and investments** using the 10 guiding principles* for improving nutrition through agriculture;
b) create standardized **metrics for measuring progress in nutrition**