Biodiversity for Food and Nutrition Security: Lessons from Nicaragua






Overview

1. Global food system, hidden hunger
2. Agricultural model promoting dietary diversity
3. Research questions, methods, and findings
4. Lessons for all of us

99.95% loss in food diversity

The Human Cost

The global response

Food-based approach

Mobilizing biodiversity

Project Bonafide

Nicaragua Stats

- GDP per capita: 1, 800 USD
- Staple crops: Rice, Beans, Corn, Plantains
- Nutrient deficiencies: Vitamin A, B complex, Iron
- Multiple chronic conditions prevalent: obesity, diabetes, hypertension

Research questions

- Has Project Bonafide strengthened links between agriculture, dietary diversity, and human nutrition?
- If so, how?

Methods

- Literature review, surveys and interviews with two sub-populations, harvest calendar, nutrition database.

Findings

	Balgue	**Farmers**	**Project Bonafide**
Species richness (total)	15	42	250 +
Average edible plant diversity per household	11 +/- 3	25 +/- 4	N/A
Individual Dietary Diversity Score	7 +/- 2.05	10 +/- 2	N/A
Access to fresh food (months)	4-6	6-8	N/A

Findings

		Vitamin B complex				
Common Name	Vitamin A	Thiamin	Riboflavin	Folate	Niacin	Iron
Beans	~	30%	12%	35%	13%	38%
Chili	46%	8%	8%	6%	6%	10%
Coffee	~	~	17%	~	100%	32%
Corn	~	35%	17%	6%	25%	27%
Moringa	424%	~	~	~	~	54%
Passion fruit	25%	~	~	~	5%	8%
Pumpkin	69%	~	700%	30%	~	5%
Pigeon pea	~	52%	17%	114%	20%	34%
Rice	~	53%	~	5%	~	10%

All in % of DRI per 100 g

How?

Food Environment

Meal context

Gardening

Modelling

Thank you

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- You

Questions

1. How can we change our food environment to prioritize the consumption of diverse foods?
2. How can we create events/ situations where healthy foods and dietary habits are shared?
3. How can we get people out into food gardens more?
4. What avenues are available to connect healthy foods with young families and children?