

Diet diversity, production diversity and access to markets in rural Ethiopia

NNP related research finding dissemination workshop



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Background

- Diet diversity
 - good indicator of diet quality and food security (Hoddinott & Yohannes, 2002)
 - Associated with better access and acquisition of micronutrients (Arimond & Ruel; 2004, J. Nutrition)
- Dietary diversity is extremely low in Ethiopia
 - DHS-2011: Less than 4 % of the children in rural Ethiopia were fed with 4 or more food groups (out of 7)
- Tackling low diet diversity is one of the main goals of the Ethiopian National Nutrition programme 2013-15



Objective

- Increasing production diversity at the household level is often cited as a policy tool to achieve better diets
- But little evidence whether such policy works
- This study: Attempts to understand the relationship between diet diversity and production diversity – **and market integration.**



On the role of markets

- **Hoddinott, Headey & Dereje (2014, J. of Dev. Stud.):**
 - Evidence from rural Ethiopia (AGP-areas)
 - Self-sufficiency in milk has a positive impact on milk consumption and children's growth
 - But not in villages that have an access to markets!
- consumption & production decisions are separable

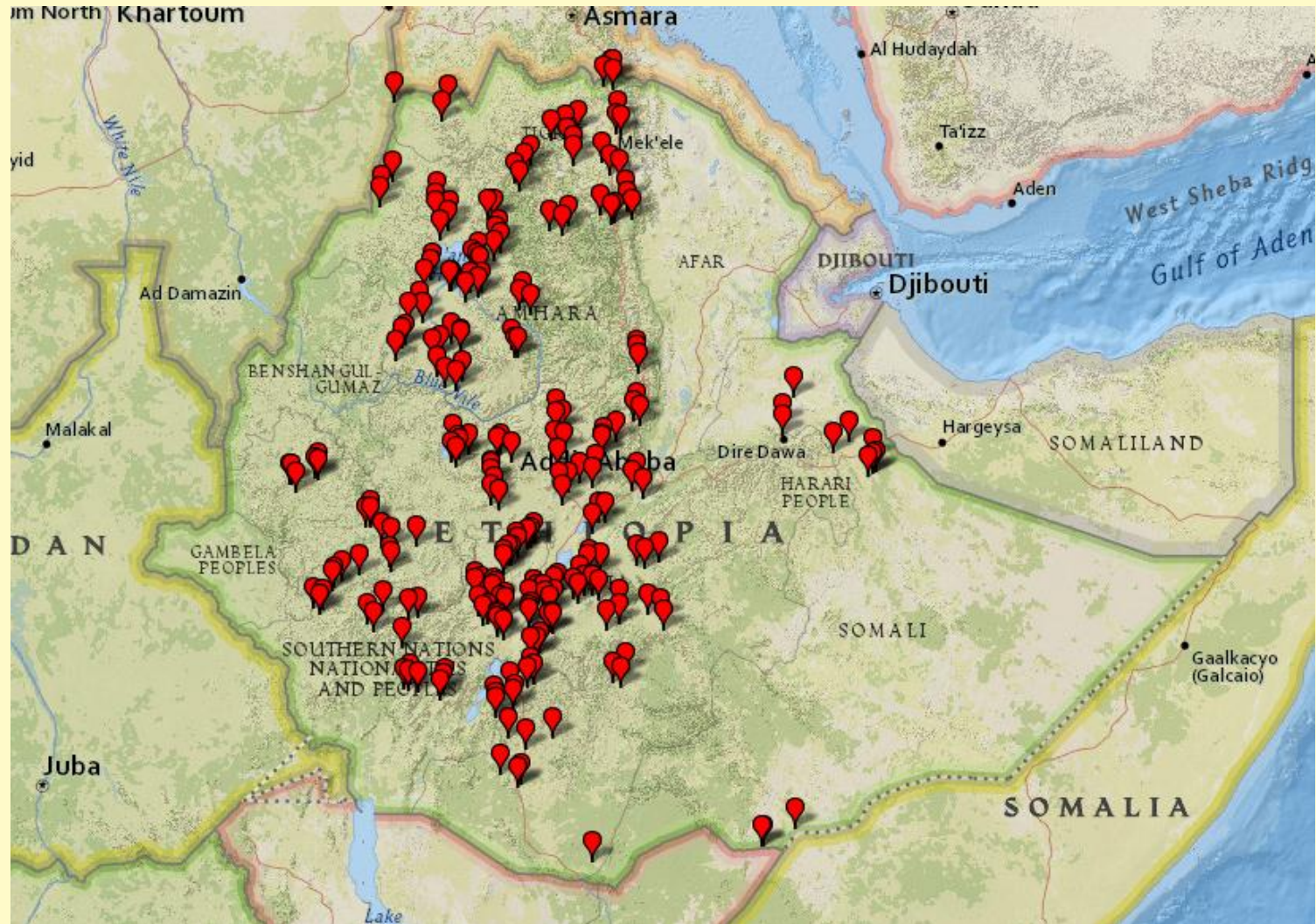


Methods: Feed the Future baseline survey

- 7,056 households, 81 woredas
- 5 Regions: Amhara, Oromia, SNNP, Somali & Tigray
- Interviews held in June-July 2013
- Diet diversity questions
 - Children (under 6 years)
 - Previous day (24h recall)
- Production diversity from comprehensive crop and livestock modules (measured at the household level)
 - Last year (12 month recall)



252 villages in Amhara, Oromia, SNNP, Somali and Tigray



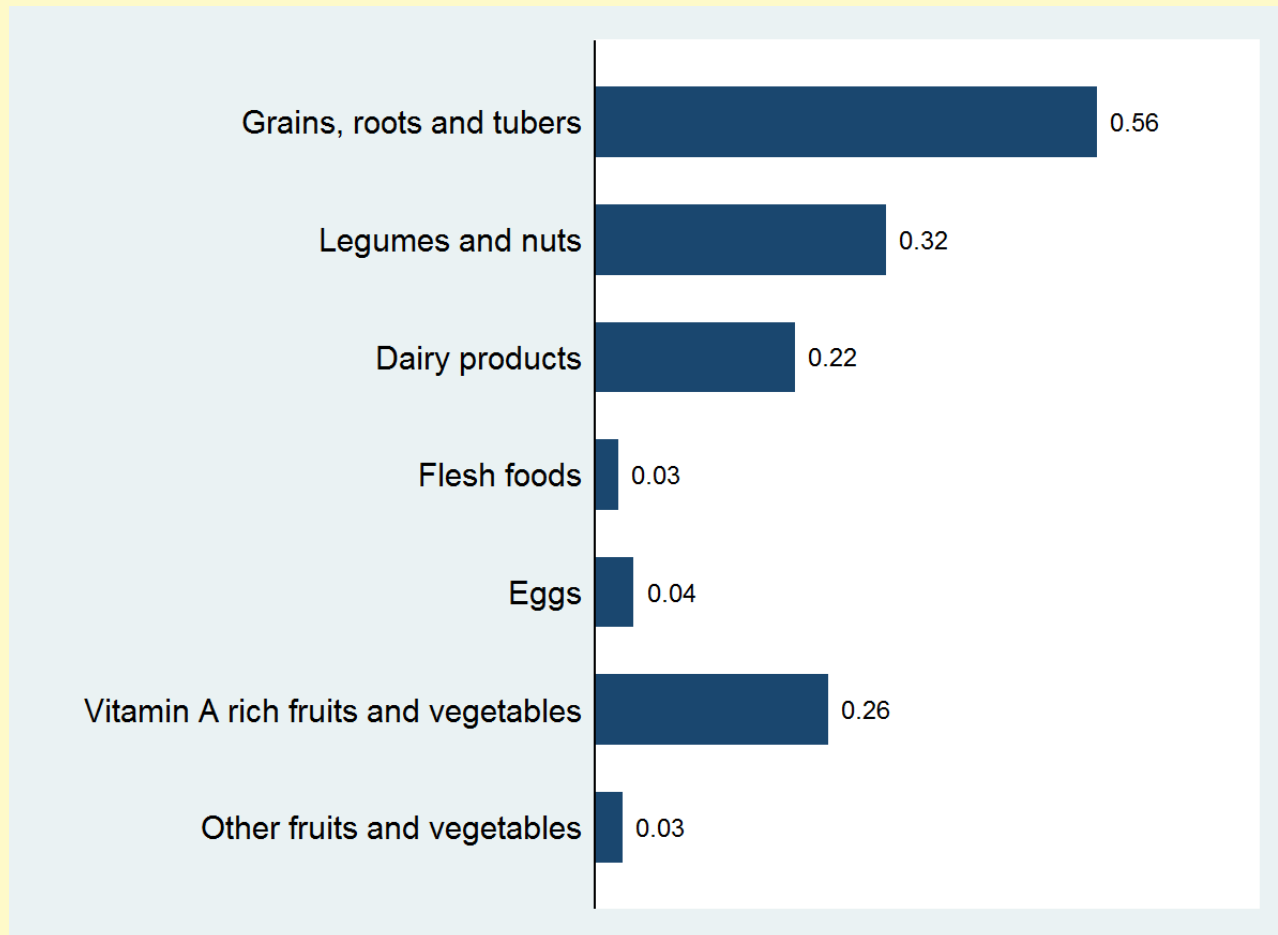
Methods

- Sample in this study: children aged 6-71 months of age. Final sample: 4,148 children.
- Regress children's food diversity score on household's production diversity
 - Control for various child, household and community level characteristics
 - Establish causal estimates through an instrumental variable strategy
 - Predicts household's production diversity using climatic variables that determine production choices

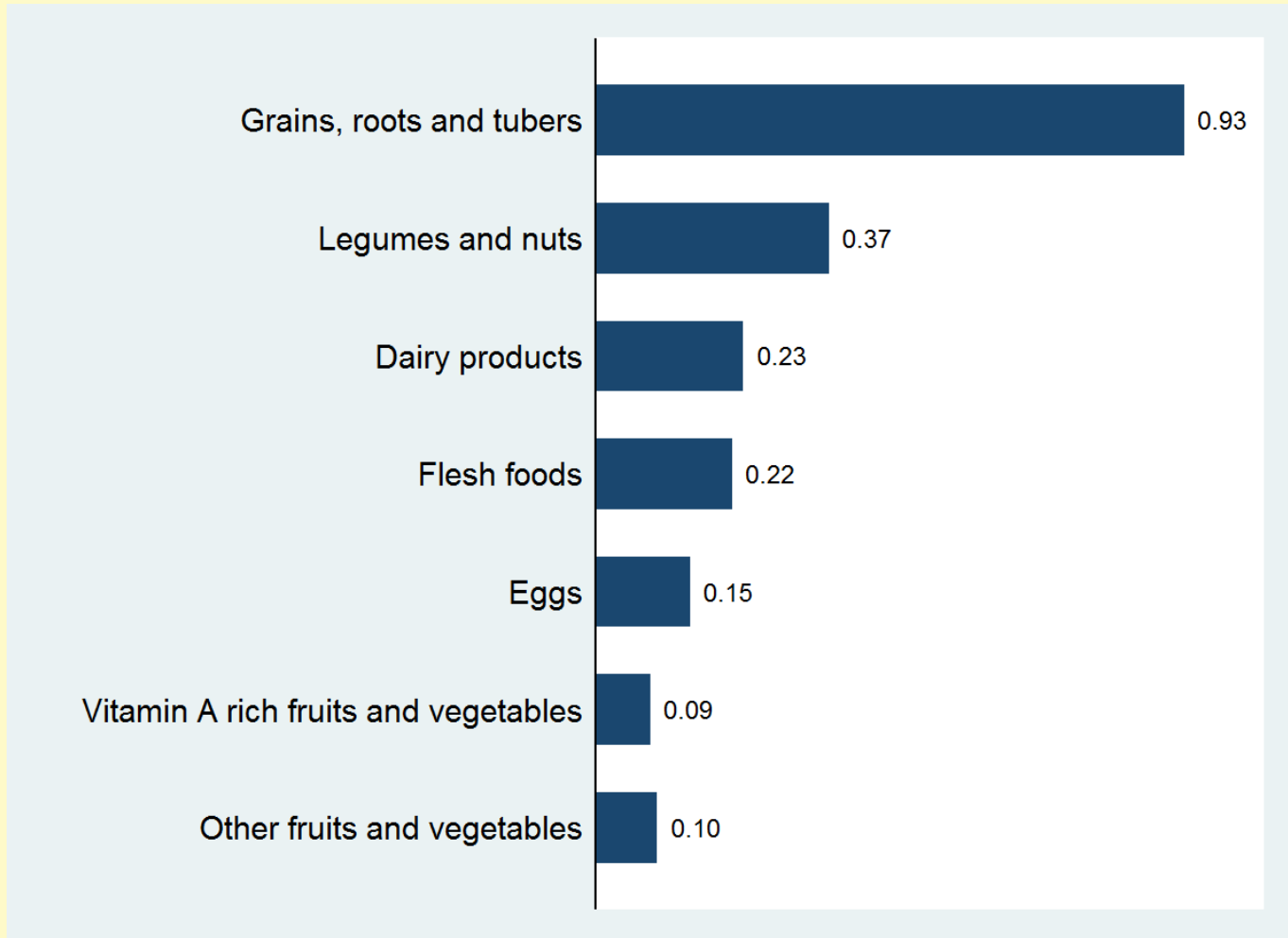


Average child in this sample eats from 1.46 food groups

Diet diversity measured using 7 food groups (WHO IYCF guidelines)



Average household produces 2.09 food groups



Results

The impact of household production diversity on children's diet diversity

	CORRELATION:		CAUSAL:	
	estimate	p-value	estimate	p-value
Full sample:	0.08	0.02	0.56	0.00

Interpretation: Household production diversity has a strong and positive impact on children's diet diversity



Results

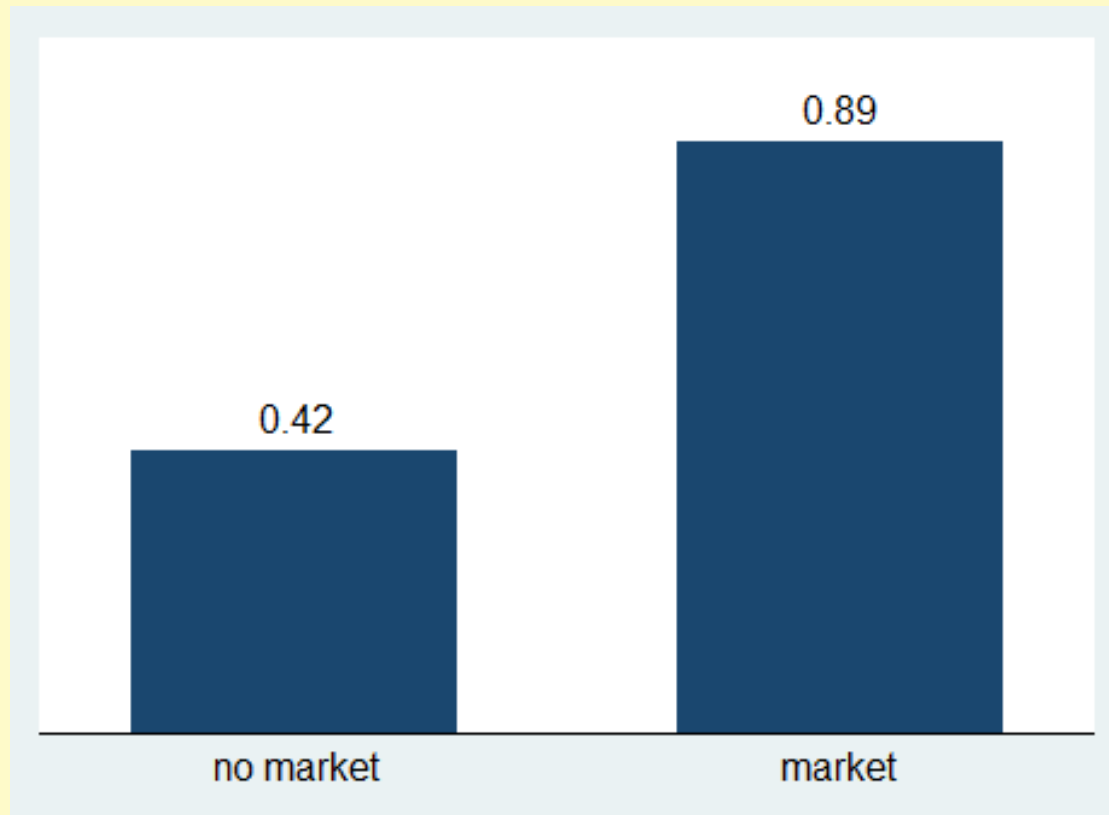
The impact of household production diversity on children's diet diversity

	CORRELATION:		CAUSAL:	
	estimate	p-value	estimate	p-value
Full sample:	0.08	0.02	0.56	0.00
No market access (83 %):	0.10	0.01	0.42	0.02
With market access (17 %):	-0.04	0.37	0.16	0.54

Interpretation: Household production diversity has a strong and positive impact on children's diet diversity **but only in remote areas with limited access to markets where to buy and sell food products**



Effect of increasing production and having a market access



Interpretation: Other things equal, children's diet diversity is higher in households with access to markets. Difference is statistically significant.



Recommendation

- Promoting production diversity works BUT only in remote areas without access to markets
- Other things equal, households with access to markets feed their children with more diverse diets
- **Nutrition sensitive agricultural interventions should push for market integration**
 - HHs get to choose what to produce and can then use the income to buy diverse foods
- **Promoting production diversity is second best strategy**



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Acknowledgements



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- Appendix --->

Diet diversity by age

