

An aerial photograph of a mountain valley in Vietnam, showing terraced rice fields on steep slopes. The fields are lush green and arranged in neat, curved rows. A river flows through the center of the valley, and a road is visible on the right side. The background shows more mountains and a hazy sky.

The effect of commercialization on food security:

The case of smallholders in post-reform
Vietnam

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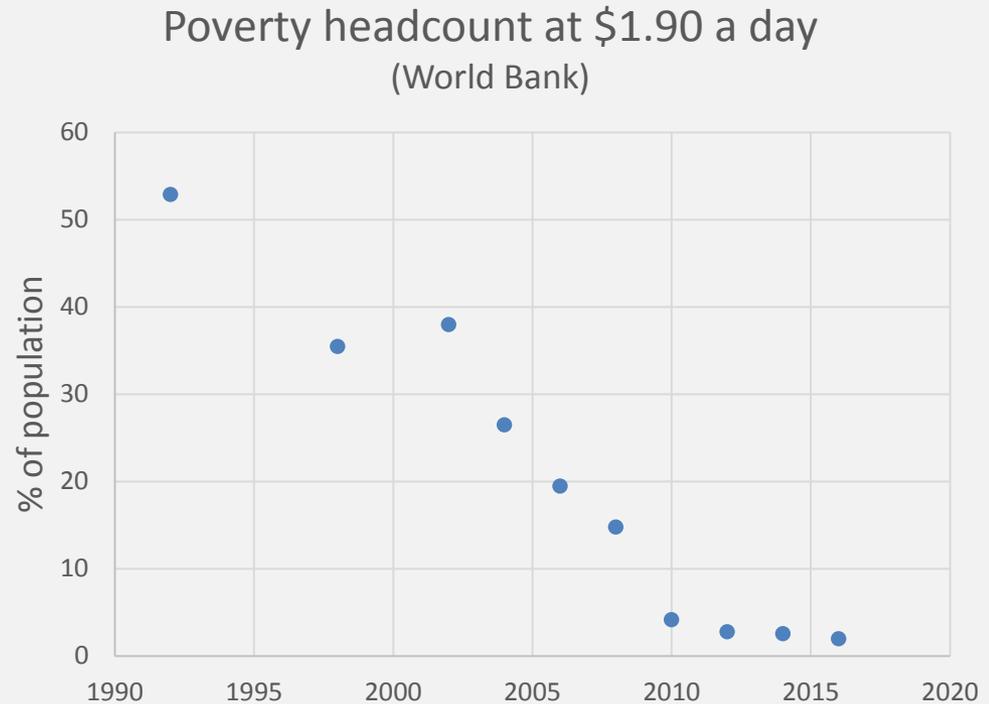
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Introduction

- Project: developmental agricultural pathways for viable commercial agriculture and consumption of nutritious foods in Myanmar and the ASEAN region
- Commercialization and food security
- Operationalization of commercialization
- Focus on Vietnam during a period of large reforms (1990s)
- Can we transfer the relationships to Myanmar?

Introduction

- Vietnam: large declines in poverty during major reforms which encouraged agricultural commercialization
- Commercialization and food security
 - Positive effect due to increased income
 - Negative effect due to inequality, risks and market failure



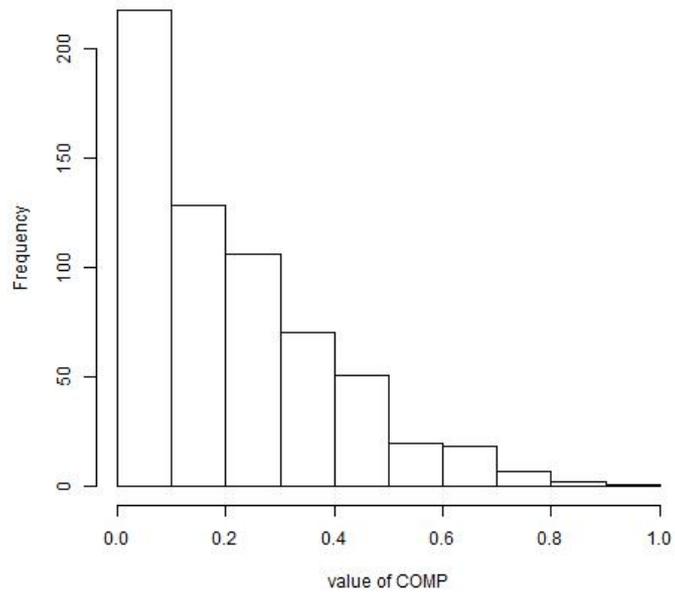
Definitions

- *What is the effect of agricultural commercialization on the food security status of crop producing households in Vietnam between 1992-1993 and 1997-1998?"*
 - Agricultural commercialization:
 - Cash crop production share
 - Crop output market participation
 - Input market use
 - Food security:
 - Caloric intake
 - Food variety score
 - Agricultural Household Model approach

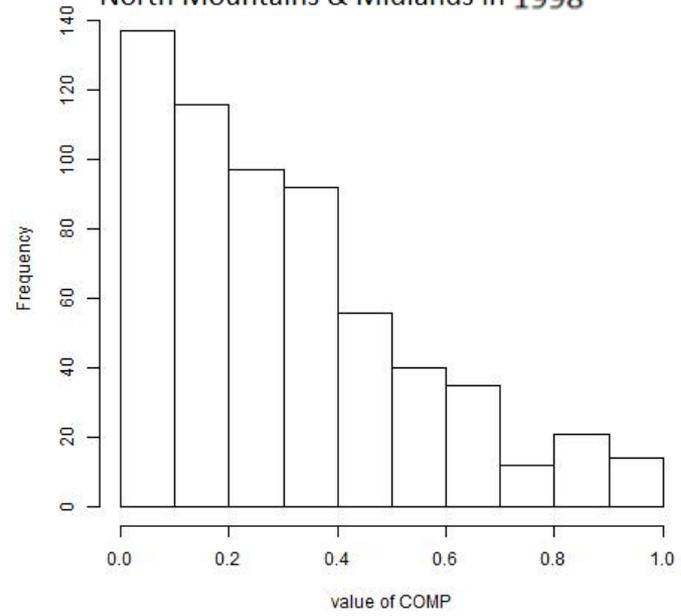
Data

- Vietnam Living Standard Survey (VLSS)
 - Two waves: 1992/93 and 1997/1998
 - Selection of farming households
 - Present in both waves
 - Active in crop farming in both waves

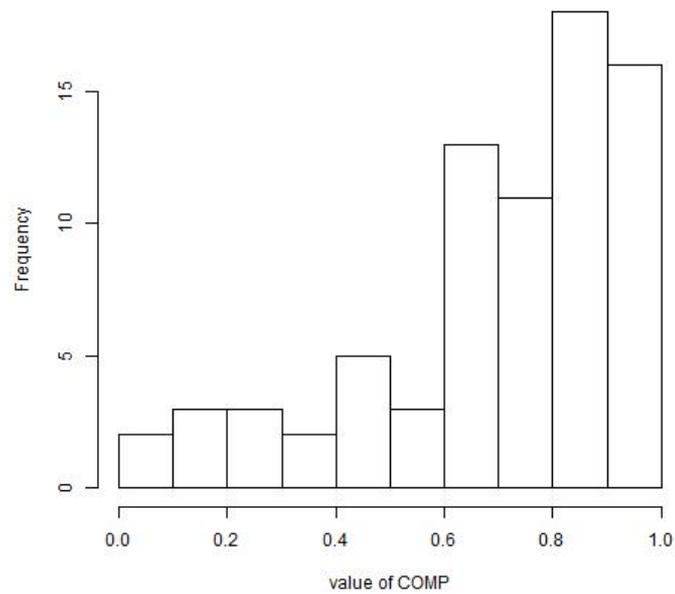
Crop output market participation in North Mountains & Midlands in 1993



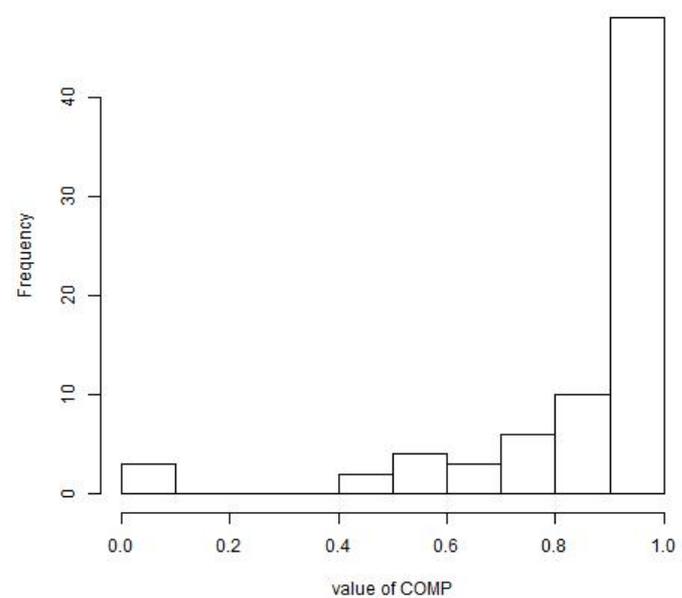
Crop output market participation in North Mountains & Midlands in 1998



Crop output market participation in Central Highlands in 1993



Crop output market participation in Central highlands in 1998



Results: regions

- Large regional differences between the northern and southern regions.
- The south has, on average:
 - Larger households;
 - lower education levels
 - Higher harvest values
 - Higher farm assets including landholdings, but less cattle
 - Higher levels of commercialization
 - Higher food variety scores
 - Higher food expenditures



Results

	Food variety OLS IV	Caloric intake OLS IV
Cash crop production share	1.570 (1.16)	706.800 *** (176.71)
Crop output market participation	1.815 ** (0.83)	492.730 *** (146.18)
Input market participation	4.004 *** (1.08)	216.330 * (121.98)

*p<0.1; **p<0.05; ***p<0.01

Conclusions

- Input side of commercialization: positive effect on the food variety score
- Output side of commercialization: a positive effect on caloric intake and in Southern Vietnam on the food variety score.
- Separation of input and output markets
- Increased income spent on non-food items and better tasting or more diverse food, but no increase in calories

On-going research

- Excessive use of pesticides and fertilizer in Vietnamese agriculture
 - Landscape elements (like ditches, lakes, irrigation canals etc.) are affected: contaminated surface water
 - Health impacts due to high concentrations in food items (vegetables and fruits)
 - Regional differences
- How will landscape elements affect food consumption and health?
- VHLSS2014 + additional data on landscape elements and health (community or district)