

Myanmar's Rural Transformation: Emerging evidence of rapid structural change

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15 February, 2017



Outline

- Historical context
- Data
- Migration and wages
- Agricultural mechanization
- Credit
- Rural Non-Farm Economy
- Farm productivity
- Conclusions

Myanmar (recent) historical context

- Among worst development indicators in SEA - High rates of malnutrition, poverty, low agricultural productivity
- Agricultural GDP = 38%; Population 70% rural
- World Bank Myanmar farm production economics survey (conducted 2013/14, published 2016):
 - “The level of agricultural mechanization in Myanmar is still low... not a surprise given the low wages in rural areas, the excess agricultural labor, and the still-lacking infrastructure and regulatory environment for machinery service providers.”
 - “Farmers in general do not have the access to long-term capital, preventing investments in agricultural machinery”
- BUT, by mid-2016 we find evidence of very rapid change taking place in Ayeyarwady and Yangon regions, close to Yangon...

Data

Myanmar Aquaculture-Agriculture Survey, 2016

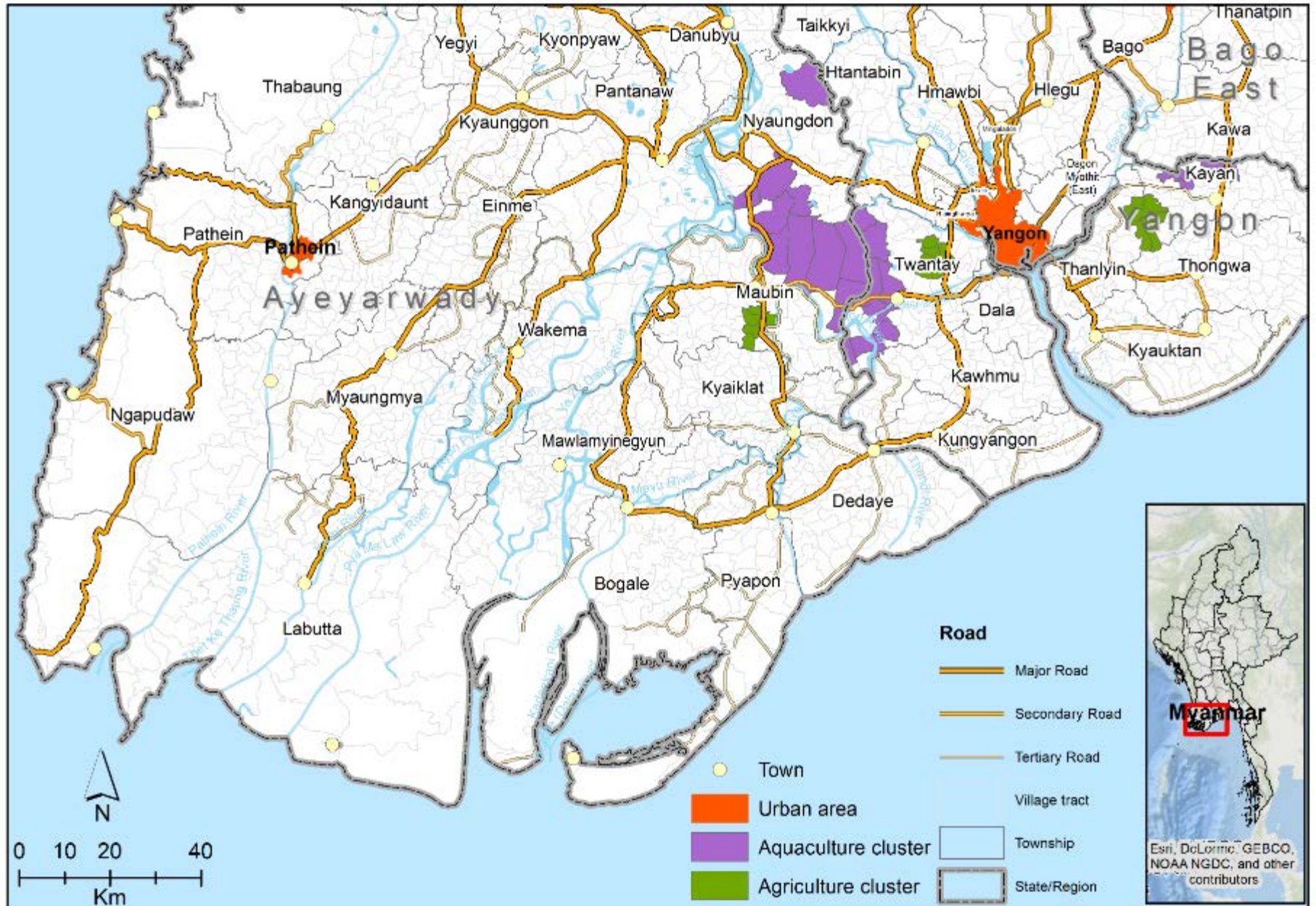
Aims

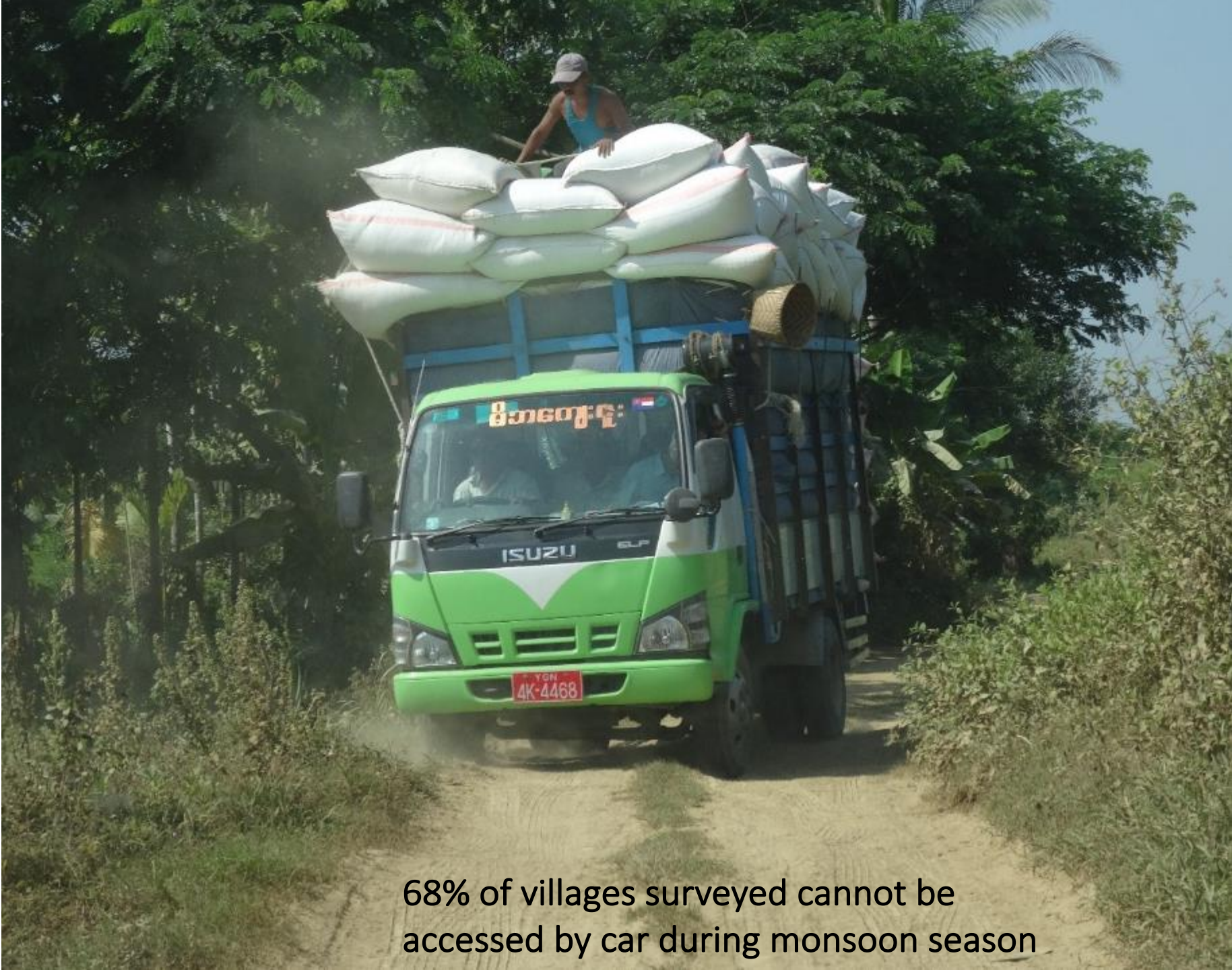
- Baseline of information on fish and crop farming sectors
- Quantify and compare spillovers & trade-offs between these
- Explore mechanization, credit, rural non-farm economy

Methodology

- Purposively selected 2 clusters of 'village tracts' for comparison, based on concentration of fish ponds and prevailing crop farming systems
- Randomly selected communities and households to represent entire population of both clusters (including non-farm households)
- Total sample = 1102 HHs in 40 village tracts
- Community survey (73 villages)
- Survey of agricultural machinery supply businesses in Yangon

Survey locations





68% of villages surveyed cannot be accessed by car during monsoon season

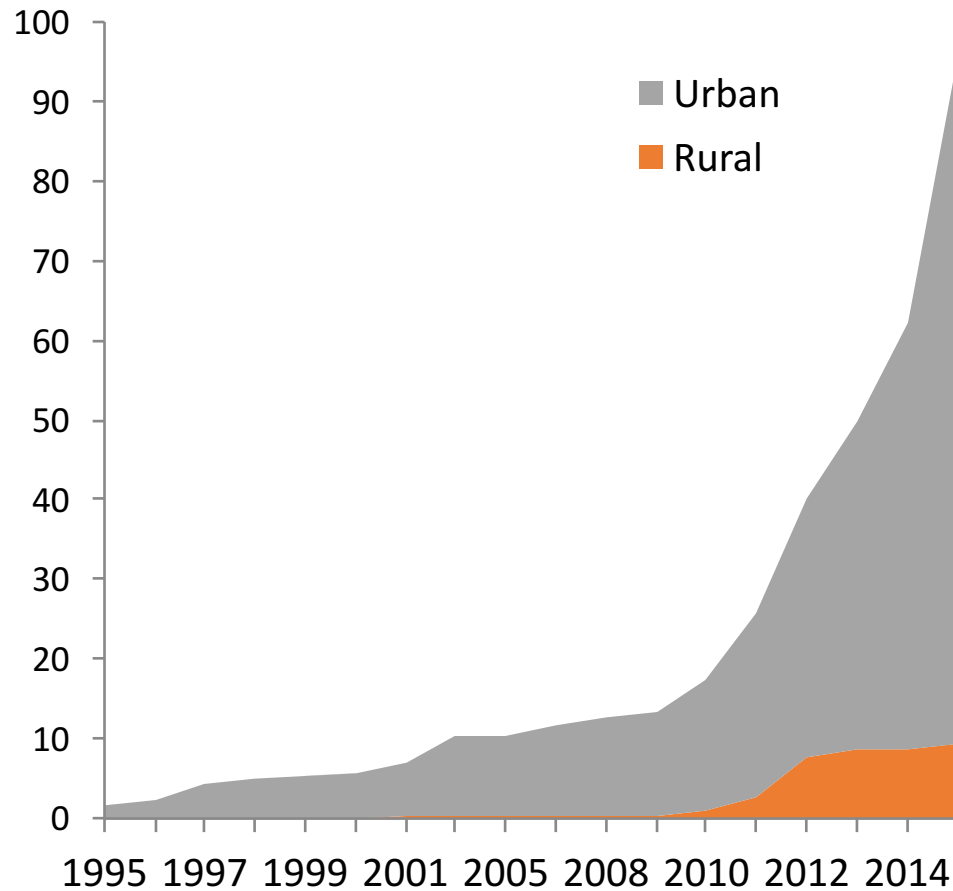
Average distance to nearest paved road = 3.1 miles



88% of villages have no access to public electricity



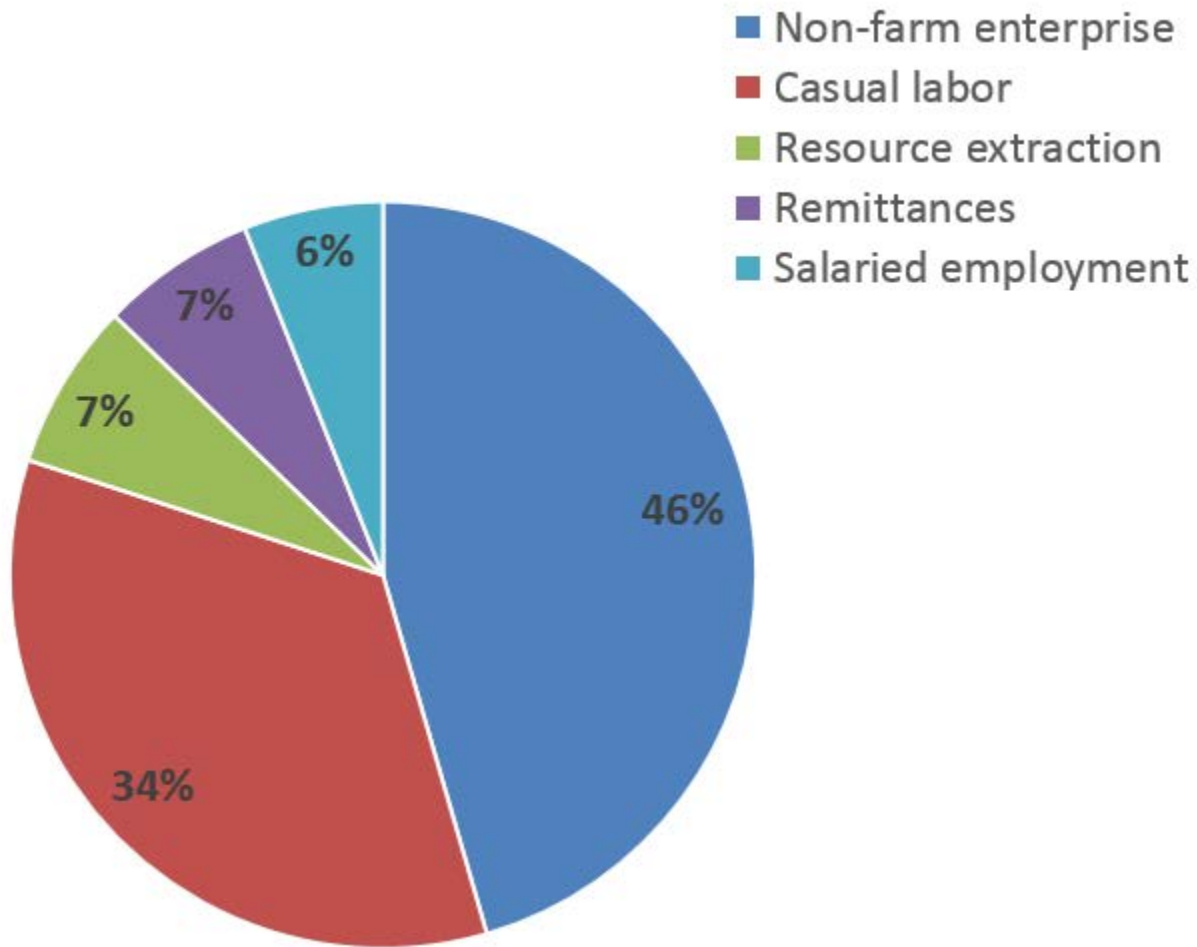
Rapidly accelerating rural-urban migration post-2010



- 16% of HH have migrants
- Average migrant age 21
- 55:45 male/female split
- 8% international
- 70% employed in manufacturing
- Rural-rural migration from remoter areas for fulltime agricultural work

Cumulative share of current migrants by year migrated (%)

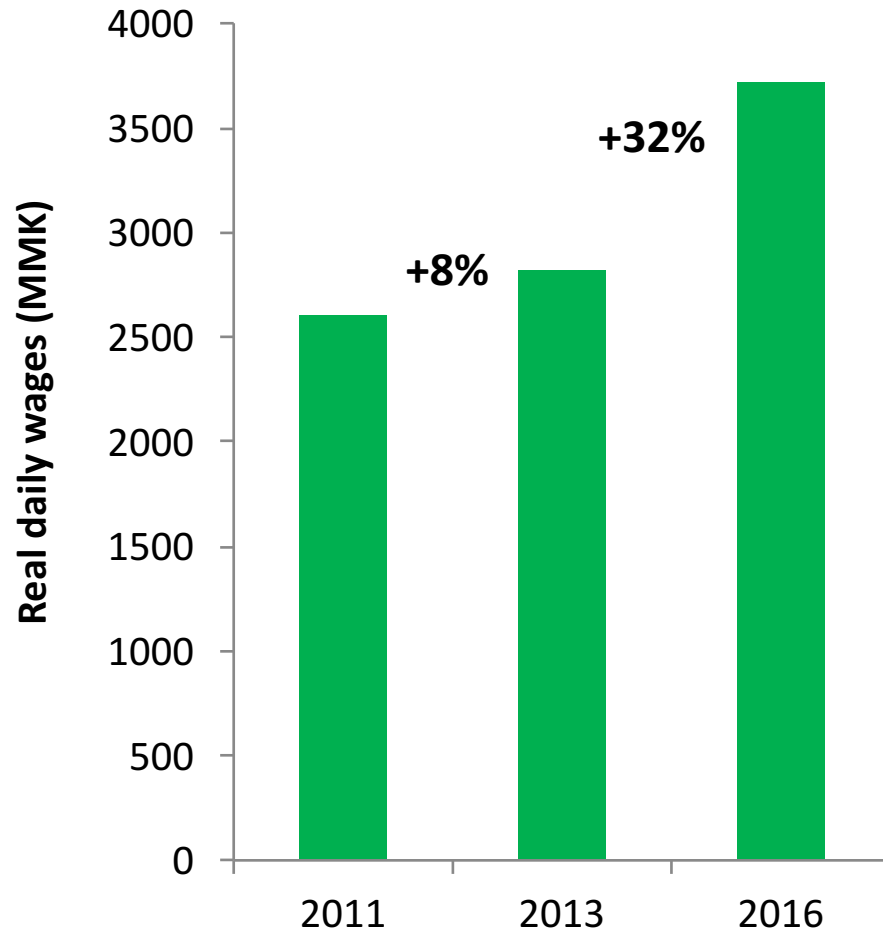
Contribution of remittances to off-farm income is relatively small



- 80% of HH with migrants receive remittances
- Average remittance = \$50/month

Contributions to total off-farm income, by source of income

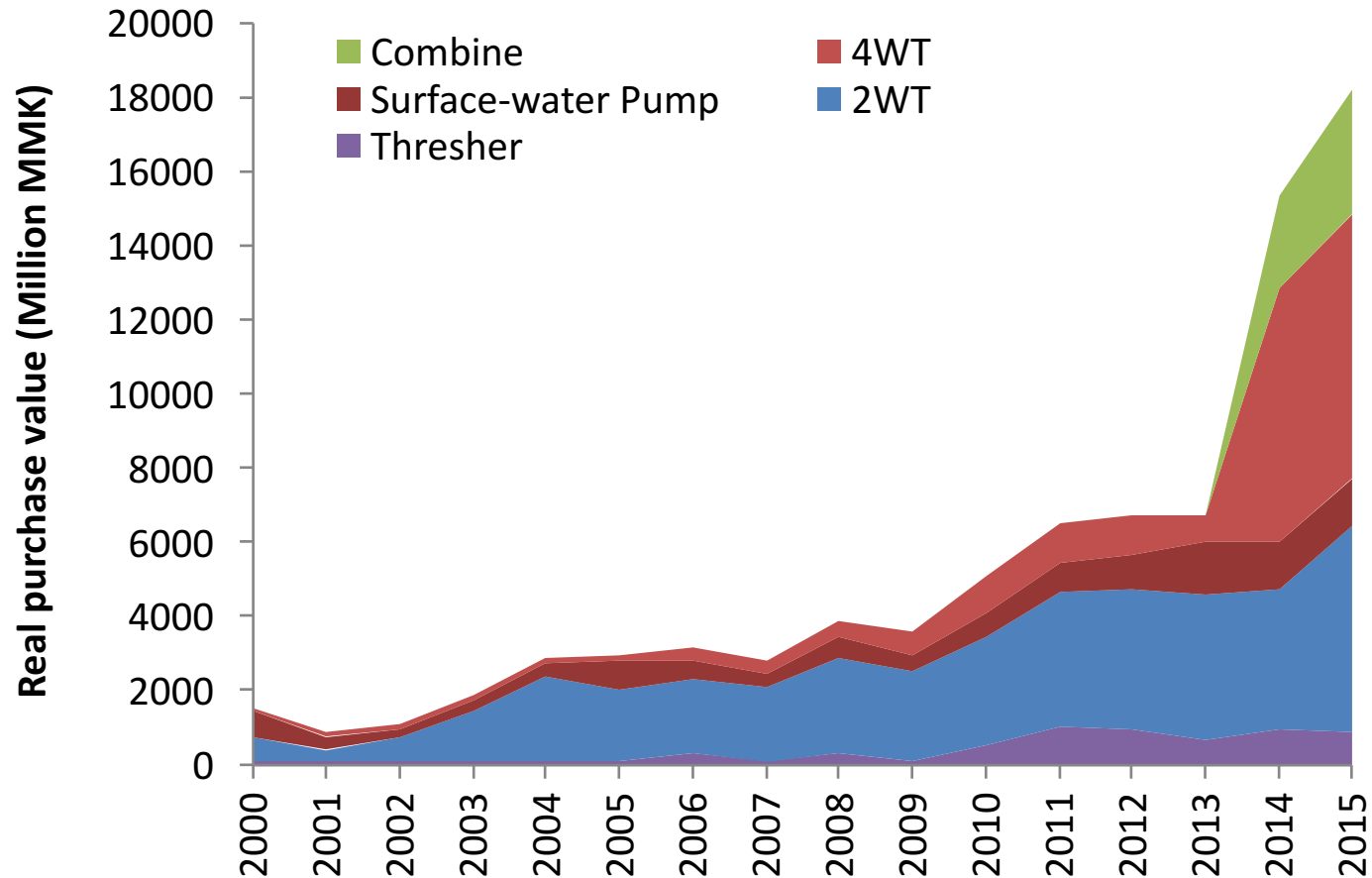
Real wage increases



Main impact of migration is on rural labour supply and wage rates

Average real daily wage for male agricultural labour (2011-2016)

Labour shortages & rising wages driving mechanization



Real annual value of agricultural machinery purchases, by year and machine type (2000-2015)

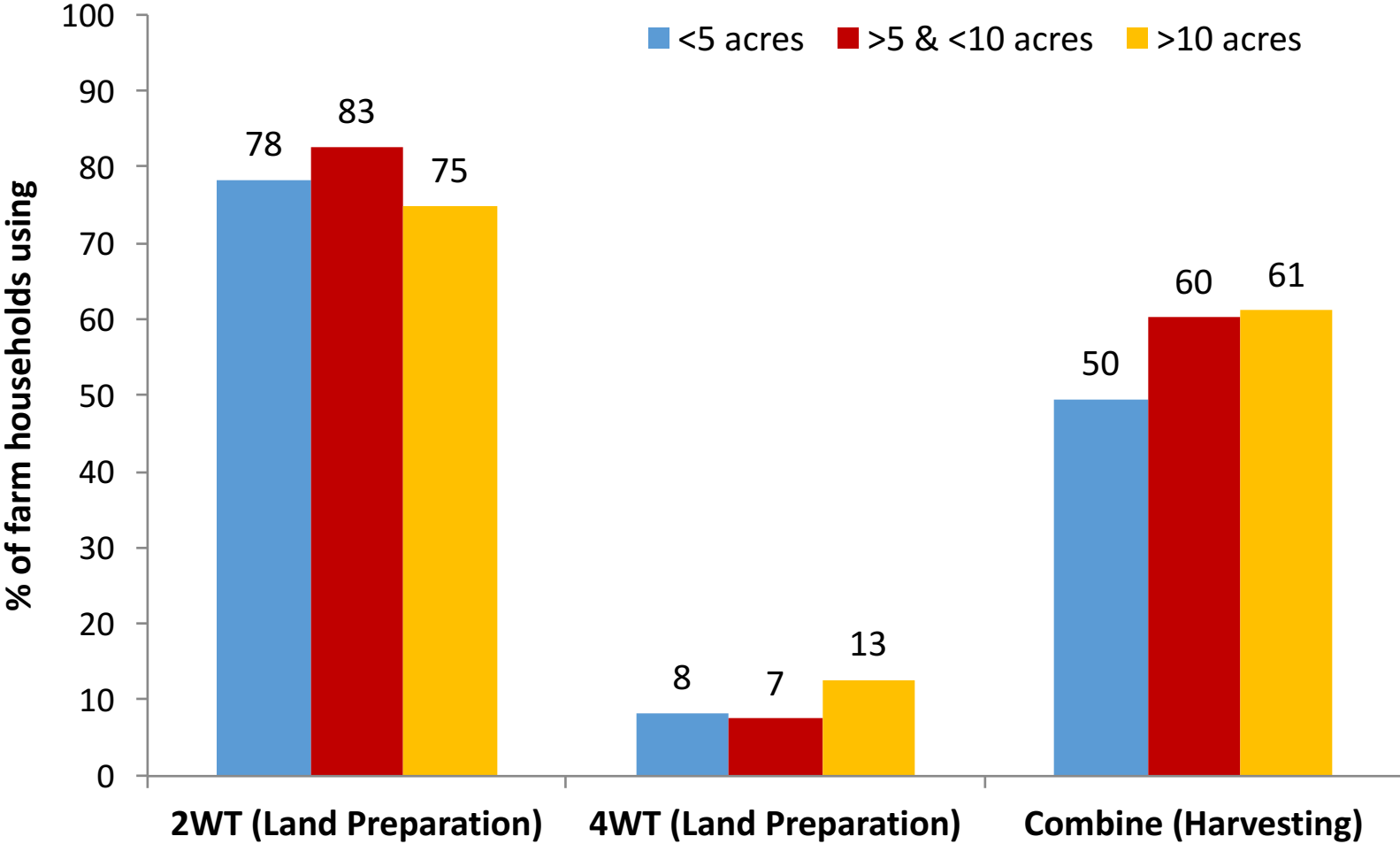








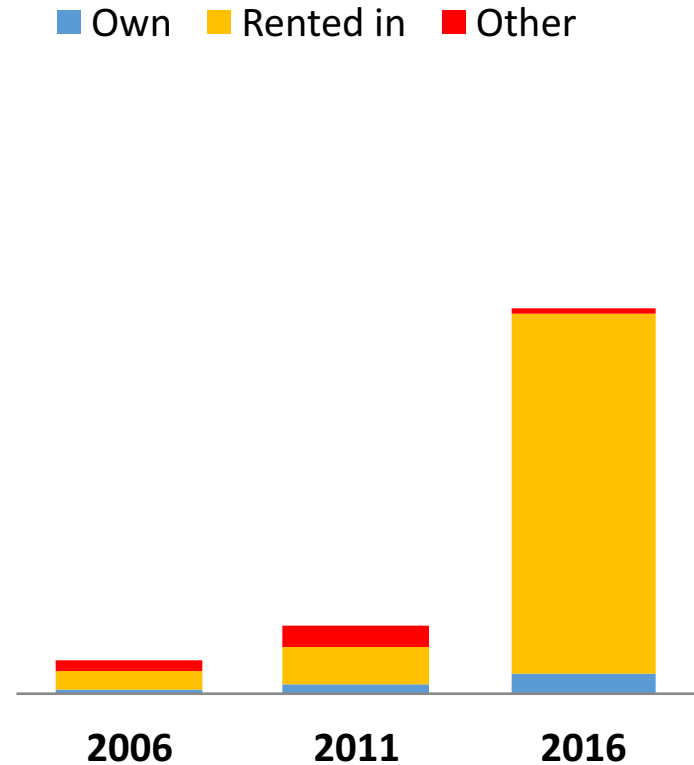
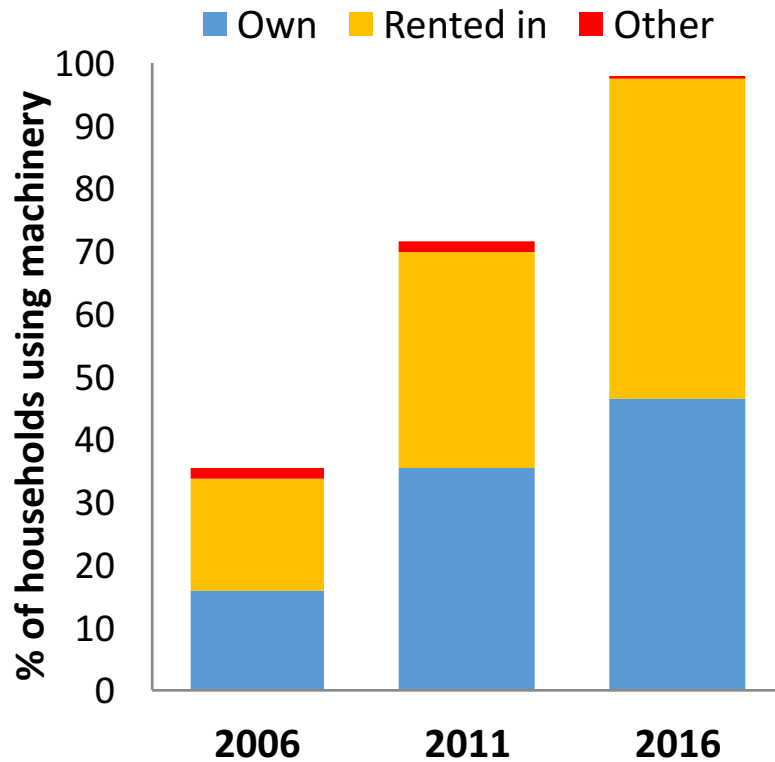
Scale-neutral technology



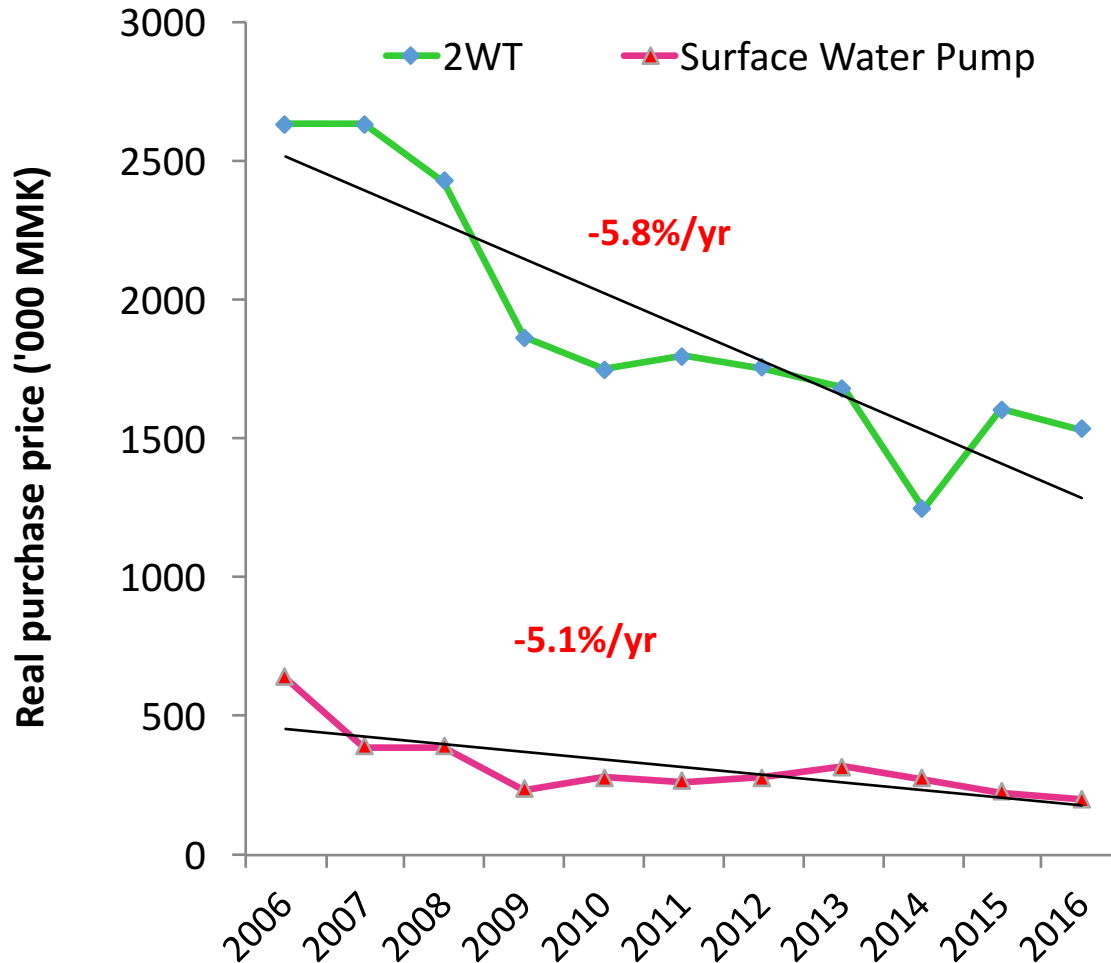
Adoption supported by rental services

Machine Use for Land Preparation

Machine Use for Harvesting

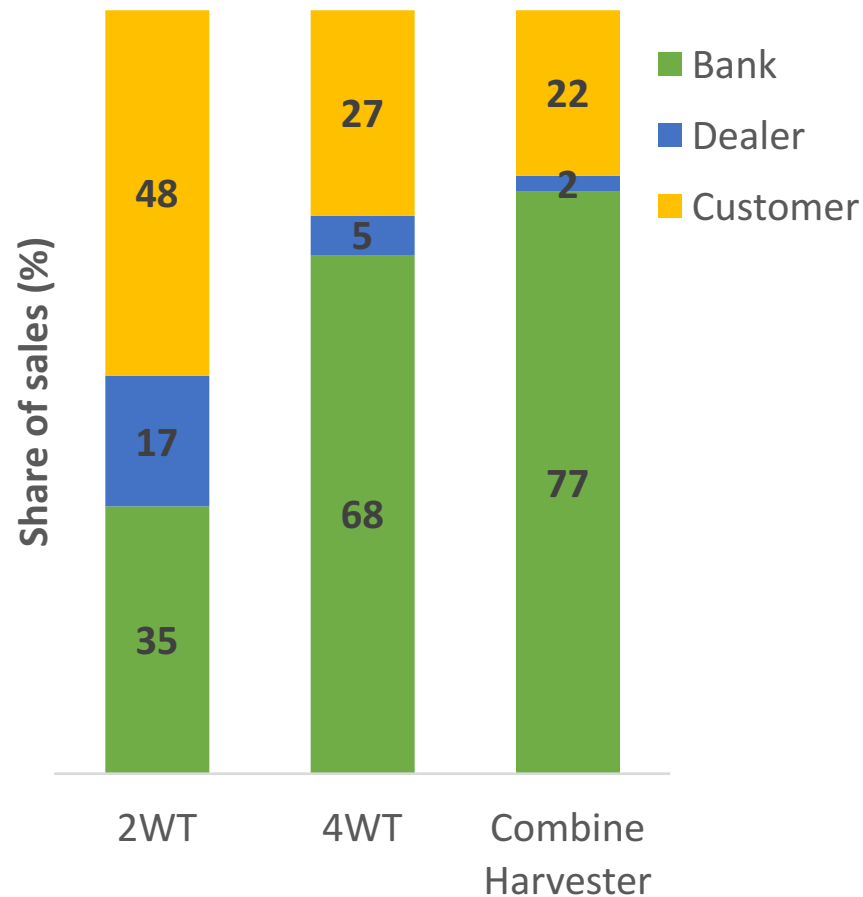


Mechanization supported by more affordable machines



Real purchase price of two-wheel tractors & water pumps, 2006-2016

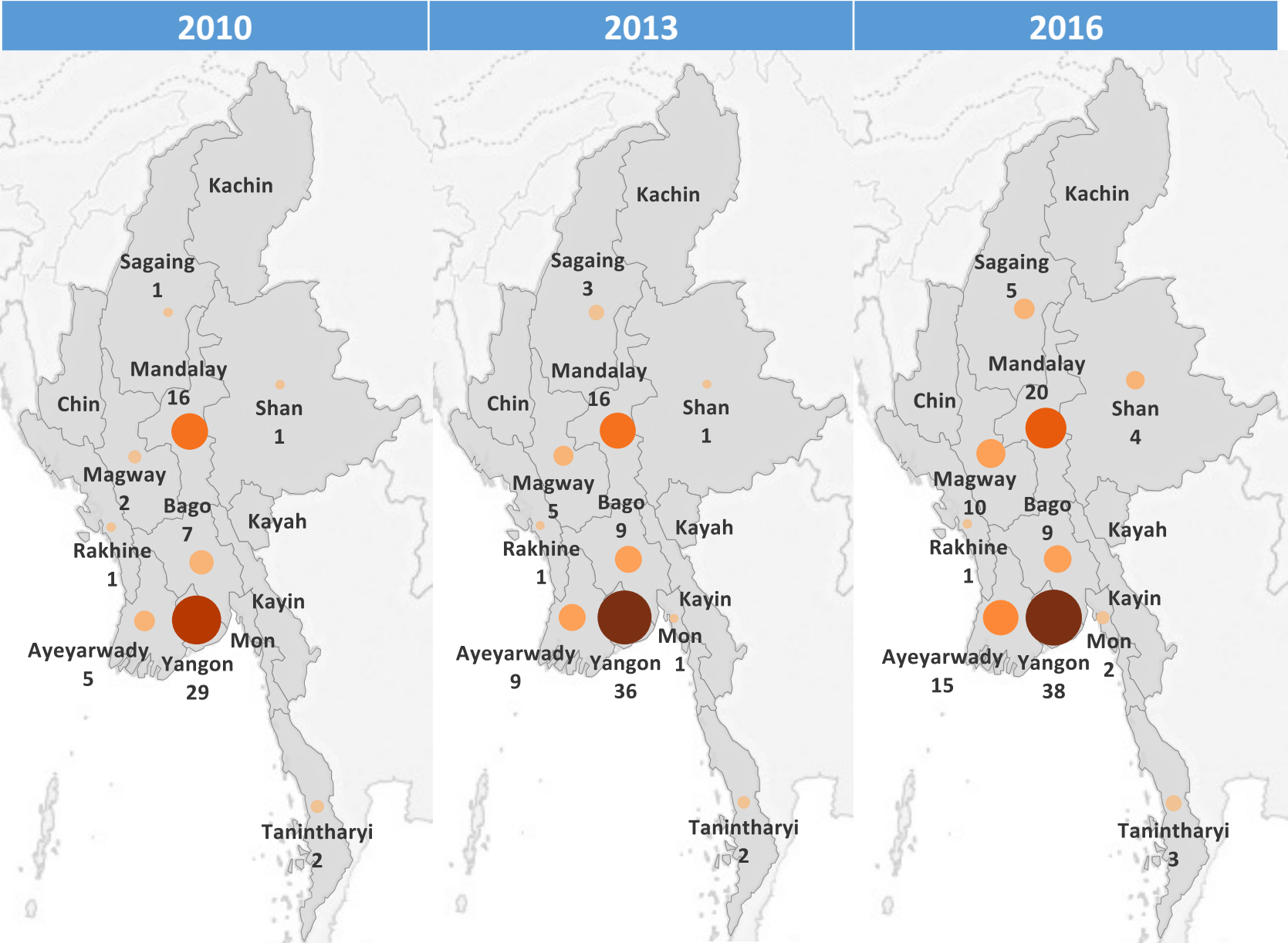
Improving access to formal financial services



Source of finance for machinery purchases (2016)

- Hire purchase agreements with commercial banks began in 2013
- Agricultural land titles can be used as collateral since 2012
- Reduced capital constraints for machine suppliers, cost of credit to buyers

Geographical spread of machine supply businesses





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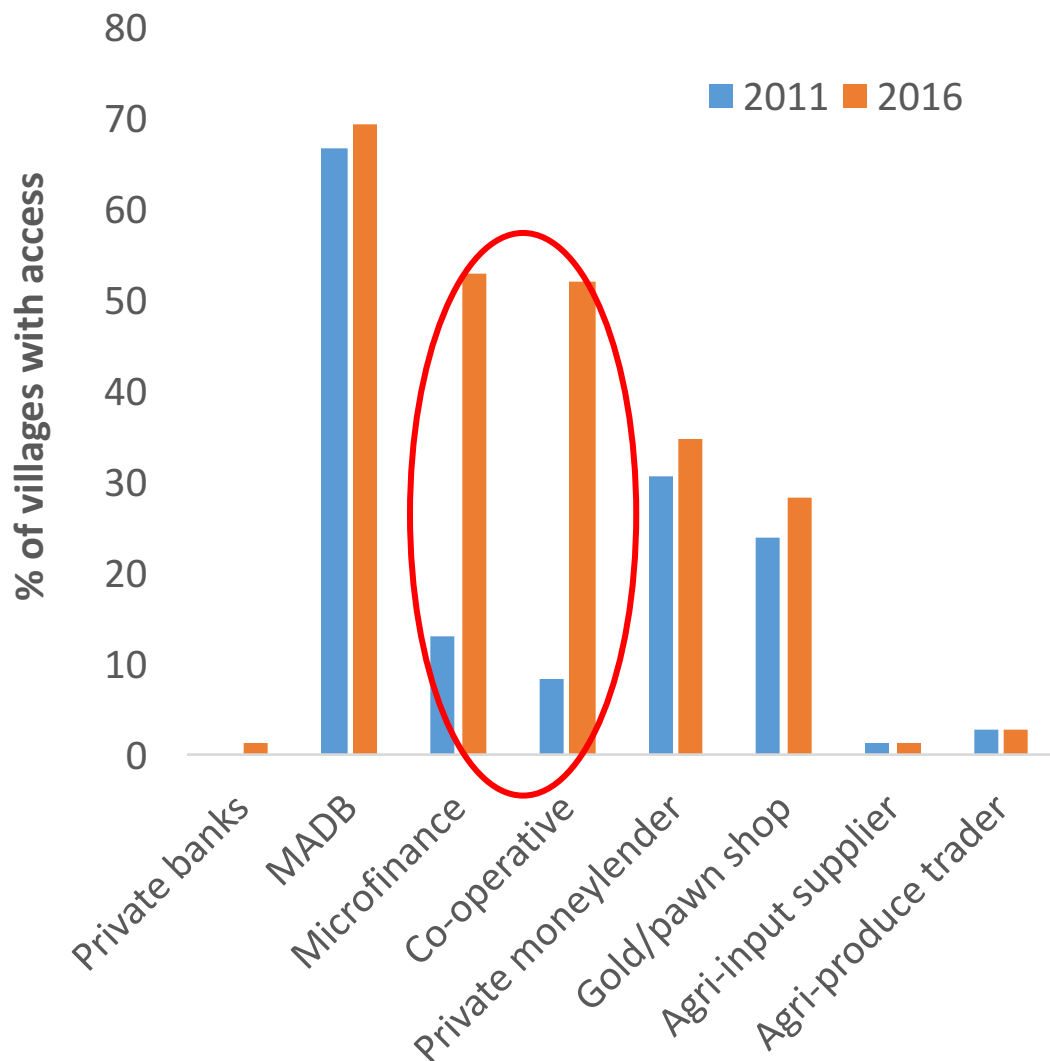
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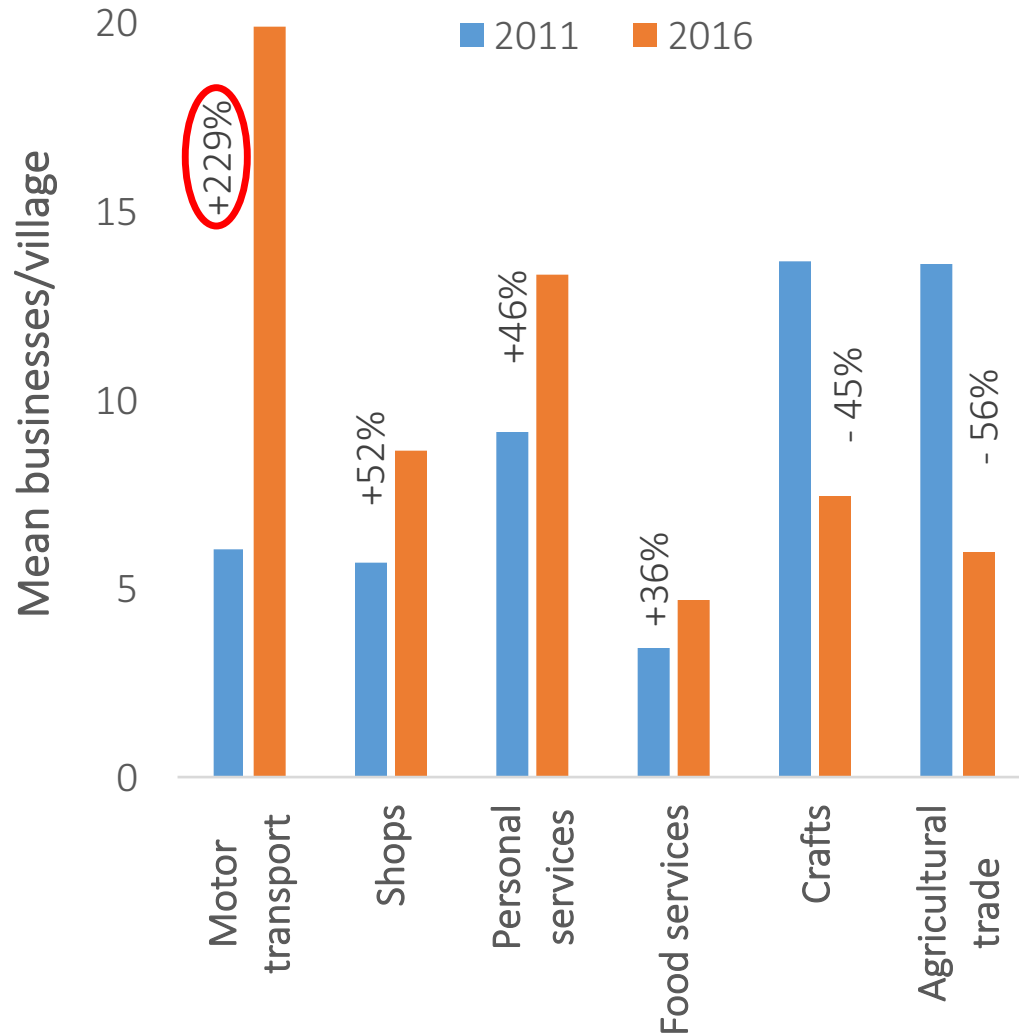
Sources of credit diversifying



- Access to credit improving due to MFIs and cooperatives
- Average rates of interest paid on informal loans fell from 72% in 2011 to 60% in 2016

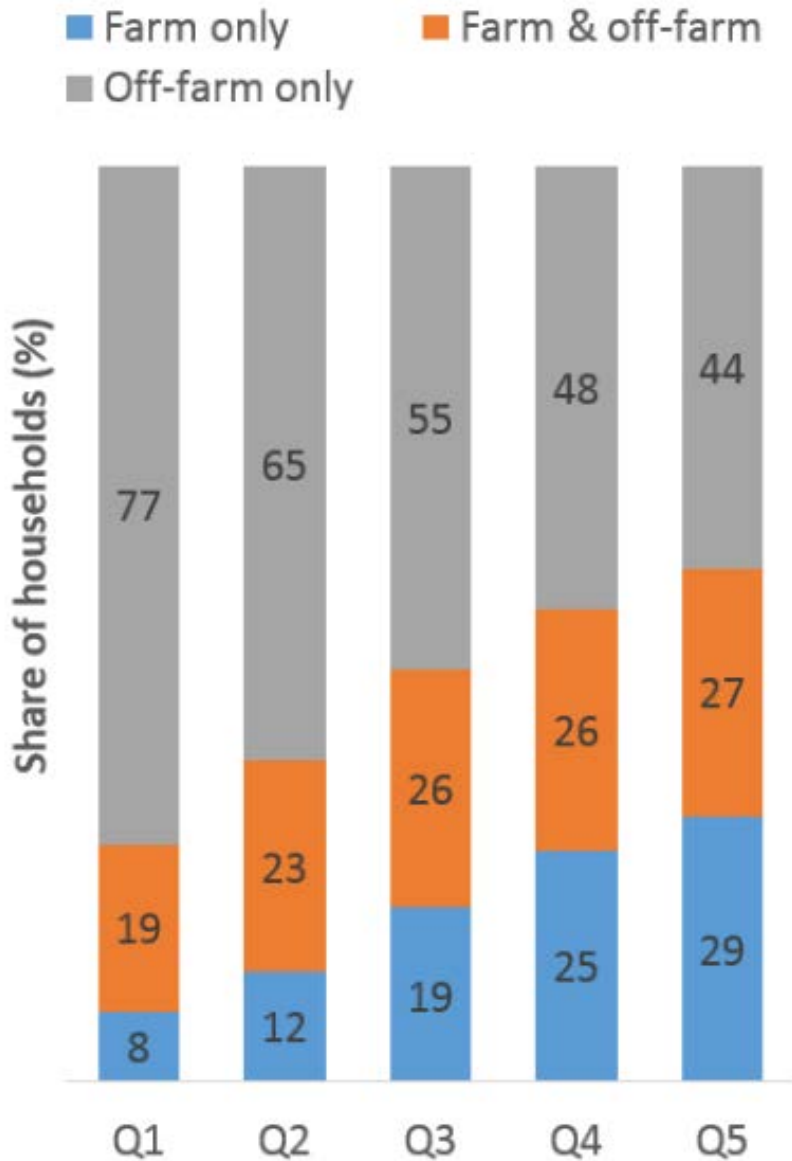
Share of villages with credit access by source (2011-2016)

Rapid growth of non-farm enterprise



- From 2011-2016, motor vehicles overtook boats as main mode of transport: average journey times to fell 20-30%.
- Increasing mobility: Of workers in fulltime employment, 44% travel beyond local area but remain resident.
- Village stores have attained almost total ubiquity (96% of villages).

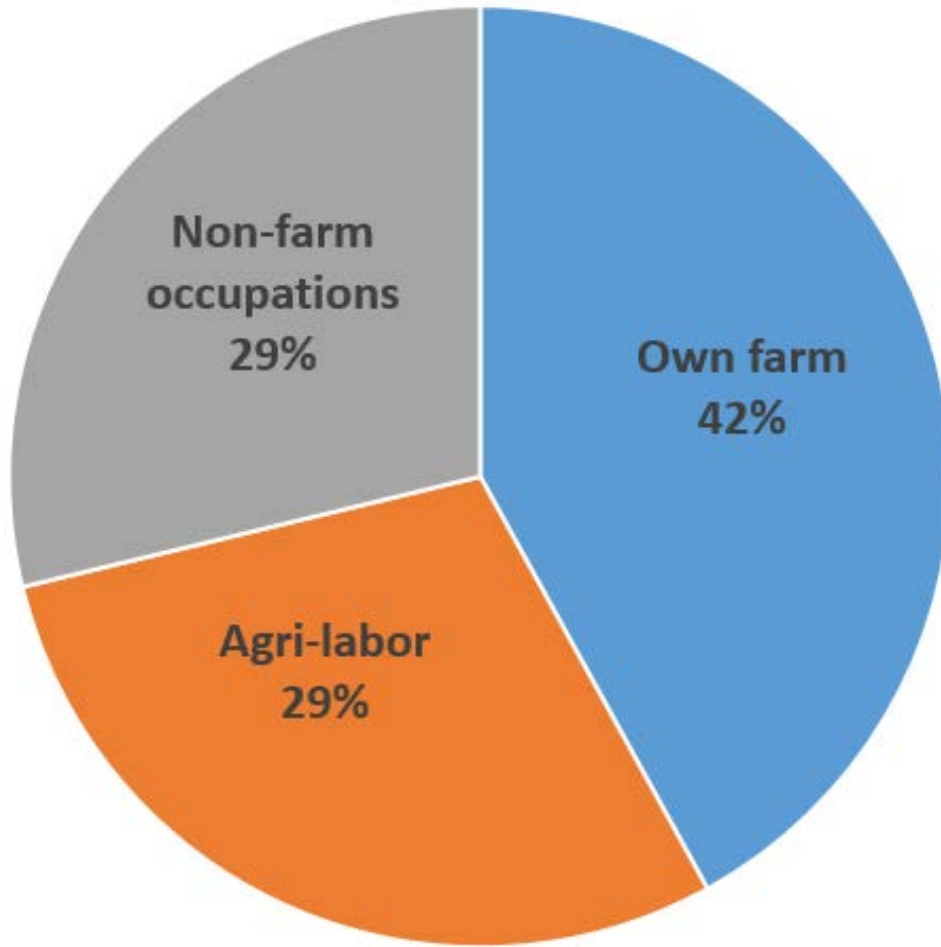
Change in average number of businesses per village, 2011-2016



Off-farm employment plays a major role in livelihoods for households in all income and landholding groups

Household participation in farm and off-farm employment by expenditure quintile

Agriculture still the major source of primary employment

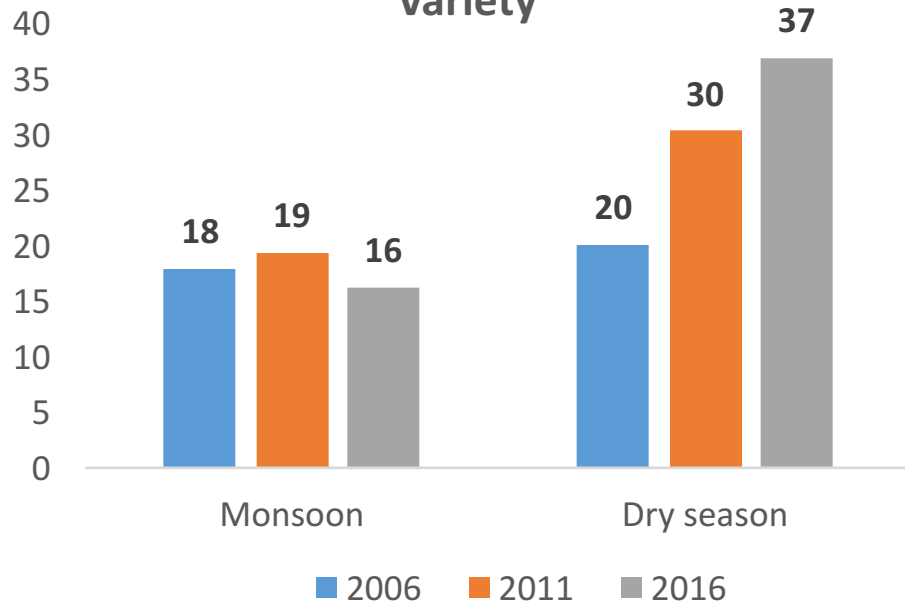


Agriculture directly provides >70% of primary employment, plus indirect employment in value chains

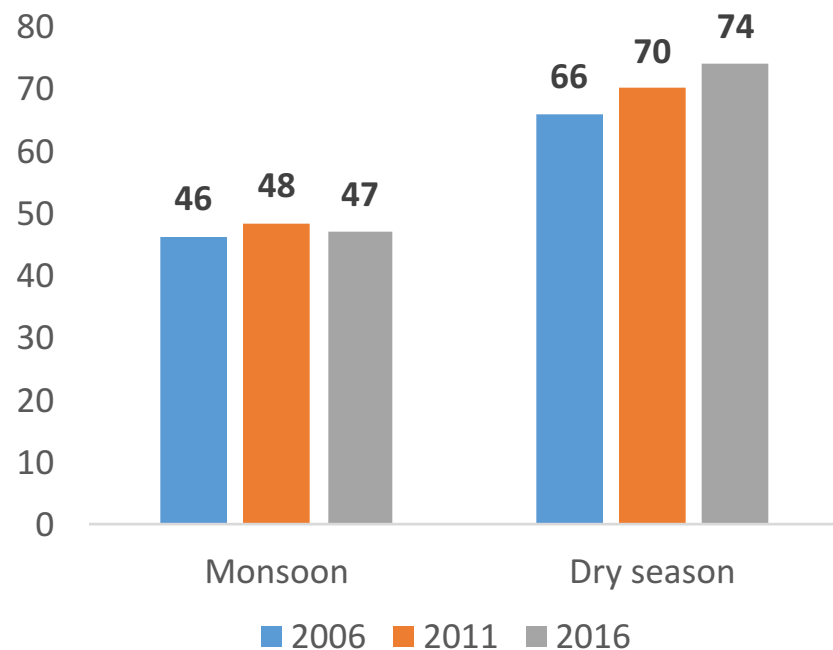
Share of individual primary employment, by type

Incipient agricultural intensification

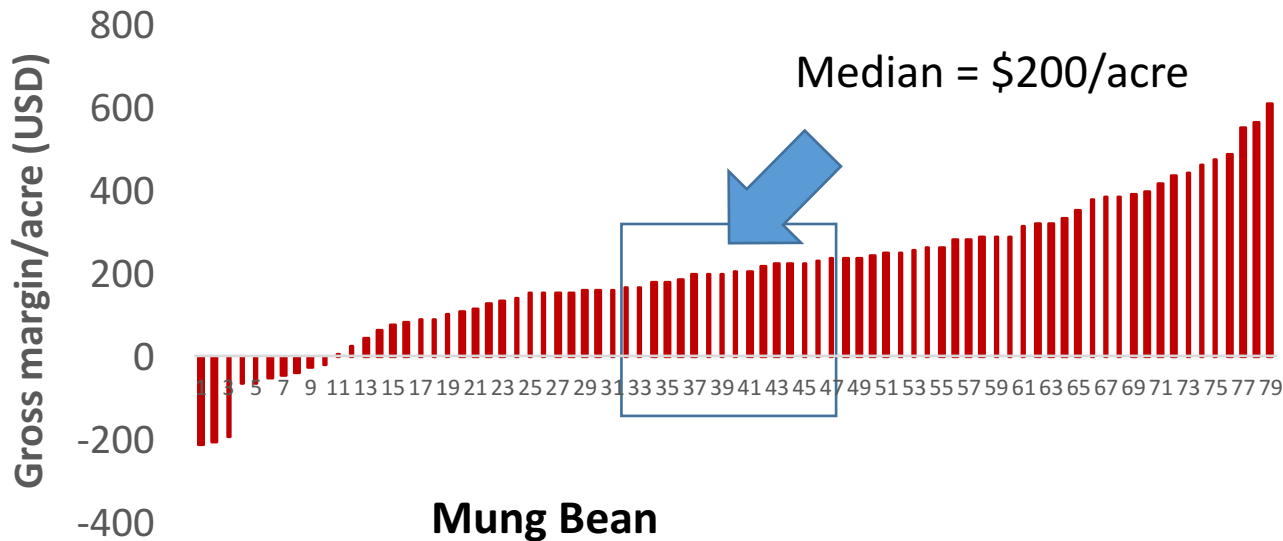
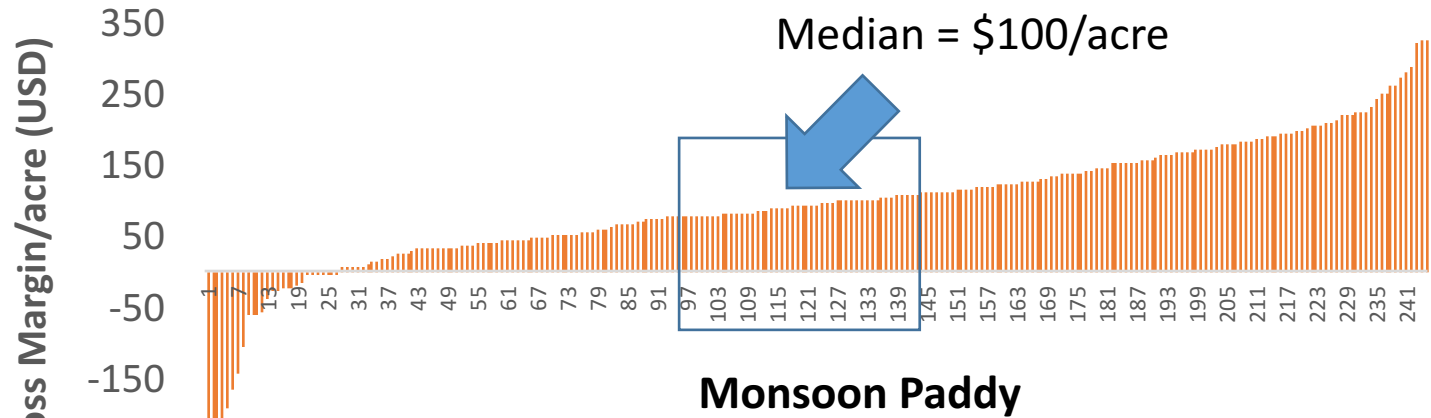
% of HH planting improved rice variety



Paddy yield (baskets/acre)



Agricultural productivity remains low



**Median
agricultural land
= 5.5 acres;
Typical annual
agricultural
income =
\$1650/HH, or
\$330/capita**

Conclusions

- Rapid rural transformation taking place close to Yangon, driven by migration
- Migration driven by urban growth & industrialization post 2012
- Leading to: Labor shortages, rising wages → Mechanization of agriculture, growth of RNFE (disposable income)
- Growth of RNFE, supported by: Greater mobility (transport services), improving access to and terms of credit; Leading to deeper market integration (labour, inputs, outputs)
- Mechanization supported by: Expansion of formal finance, falling machine costs, thriving rental markets, scale neutrality; Helps farming remain viable in face of rising costs
- BUT, more research on social implications of this process required: Will this transformation reduce inequality or accelerate differentiation? Can migration and non-farm growth keep pace with mechanization? Can agriculture remain attractive over the long run, and if so, in what forms?