

Myanmar's Changing Rural Economy: Evidence from the Delta & Dry Zone

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Introduction

- FSP
- Surveys
- Key findings from Delta and Dry Zone
 1. Infrastructure
 2. Migration & wages
 3. Mechanization
 4. Credit
 5. Rural non-farm business & off-farm employment
 6. Agricultural performance
 7. Climate change
- Implications for policy & programming

Food Security Policy Project (FSP)

- USAID & LIFT funded partnership implemented by MSU, CESD, and IFPRI – October 2014-2019

Objectives:

- Generating and disseminating new knowledge to address evidence gaps and inform better agricultural policy
- Capacity building and strengthening for research and policy

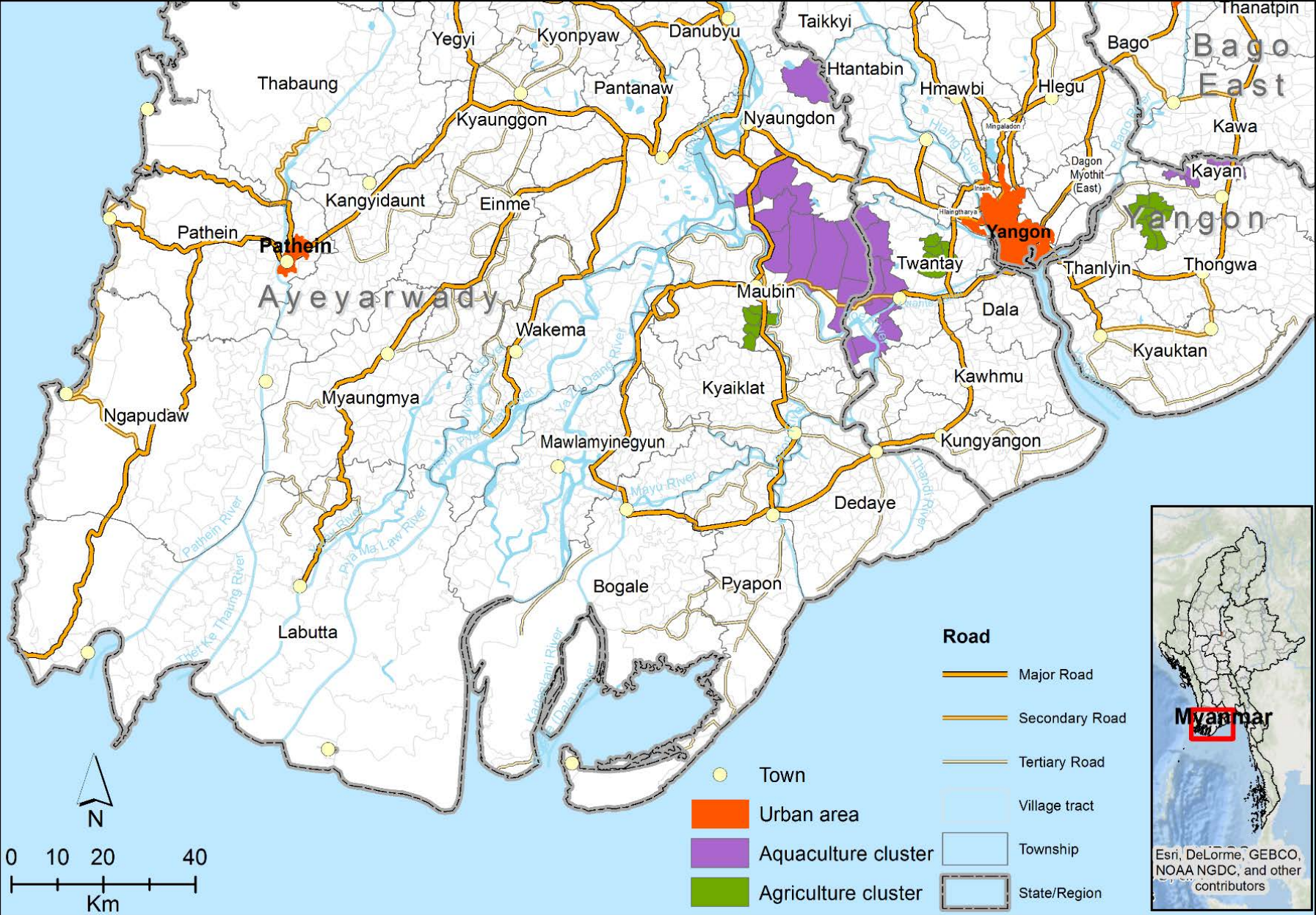
Components:

- Agricultural value chains and livelihoods research
- Policy advising
- Training and outreach

Surveys

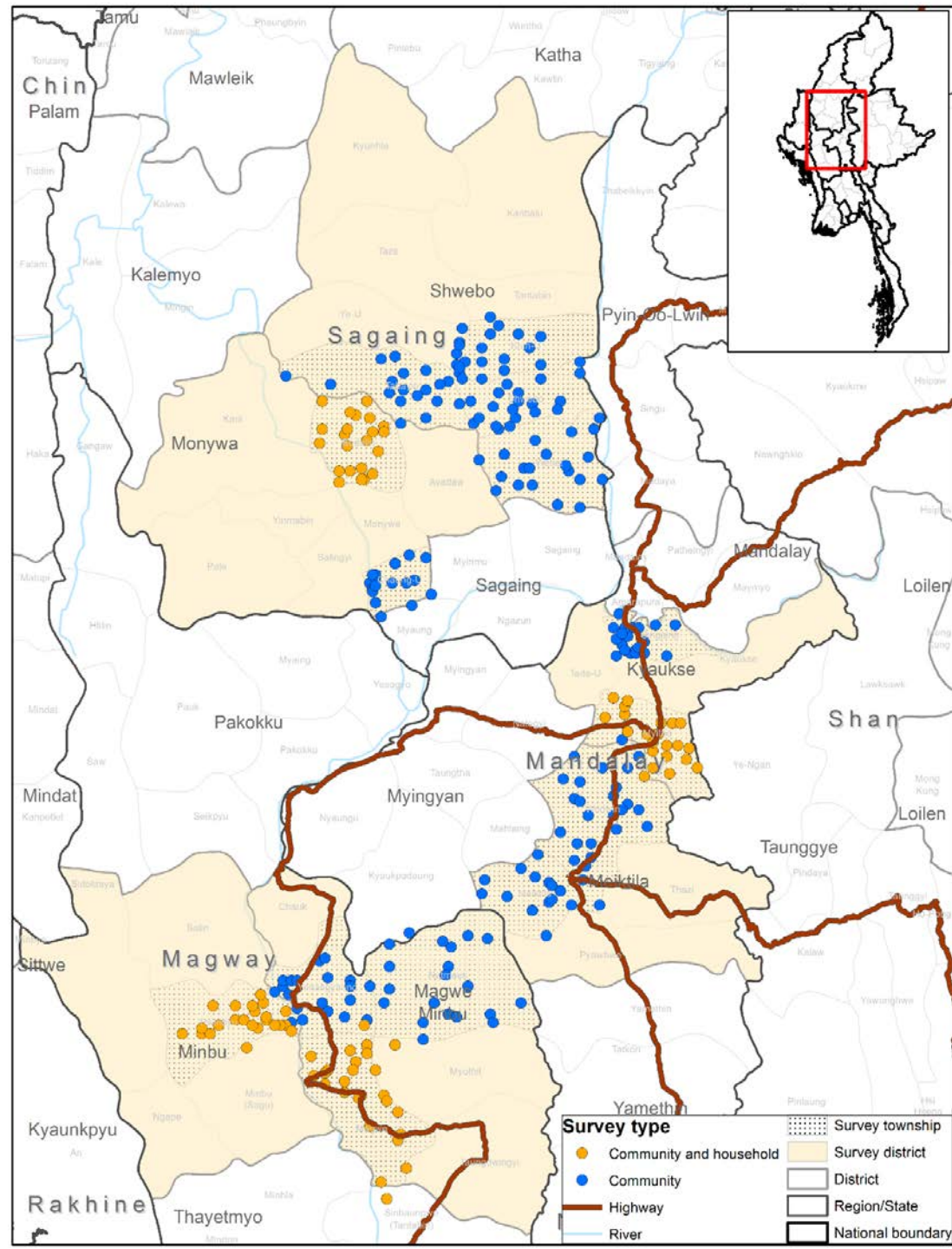
- 2016: Myanmar Aquaculture-Agriculture Survey (MAAS)
- 2017: Rural Economy & Agriculture Dry Zone Survey (READZ)
- 3 survey components: Household; Community; Off-farm enterprise
- Household: Off-farm employment, migration, agricultural production, mechanization
- Community: Changes within last decade (infrastructure, business inventory, credit access etc.)
- Off-farm enterprise (machinery supply & rental, traders, processors)

MAAS locations





READZ locations



- Budalin (Sagaing)**
- Myittha (Mandalay)**
- Pwintbyu (Magway)**
- Magway (Magway)**



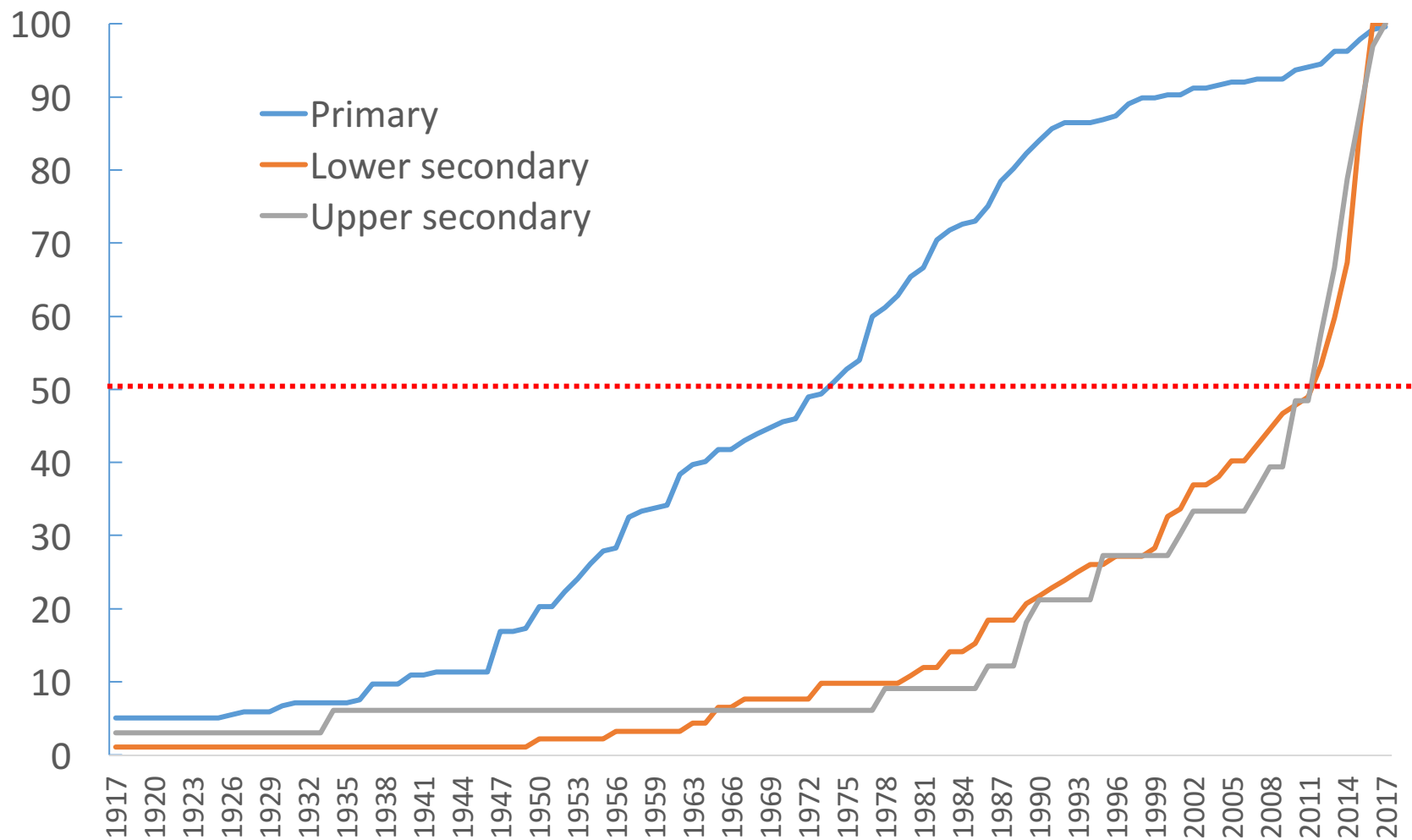
1. Improvements in infrastructure



Big improvements, from a low base

- Extent of infrastructure development regionally varied and generally quite limited
 - Villages not accessible by car in monsoon: Delta 68%, Dry Zone 28%
 - Villages with no electricity: Delta 88%; Dry Zone 66%
- But, big improvements post-2011
 - 2/3 of all electricity connections (Dry Zone)
 - Half of all secondary school construction (Dry Zone)

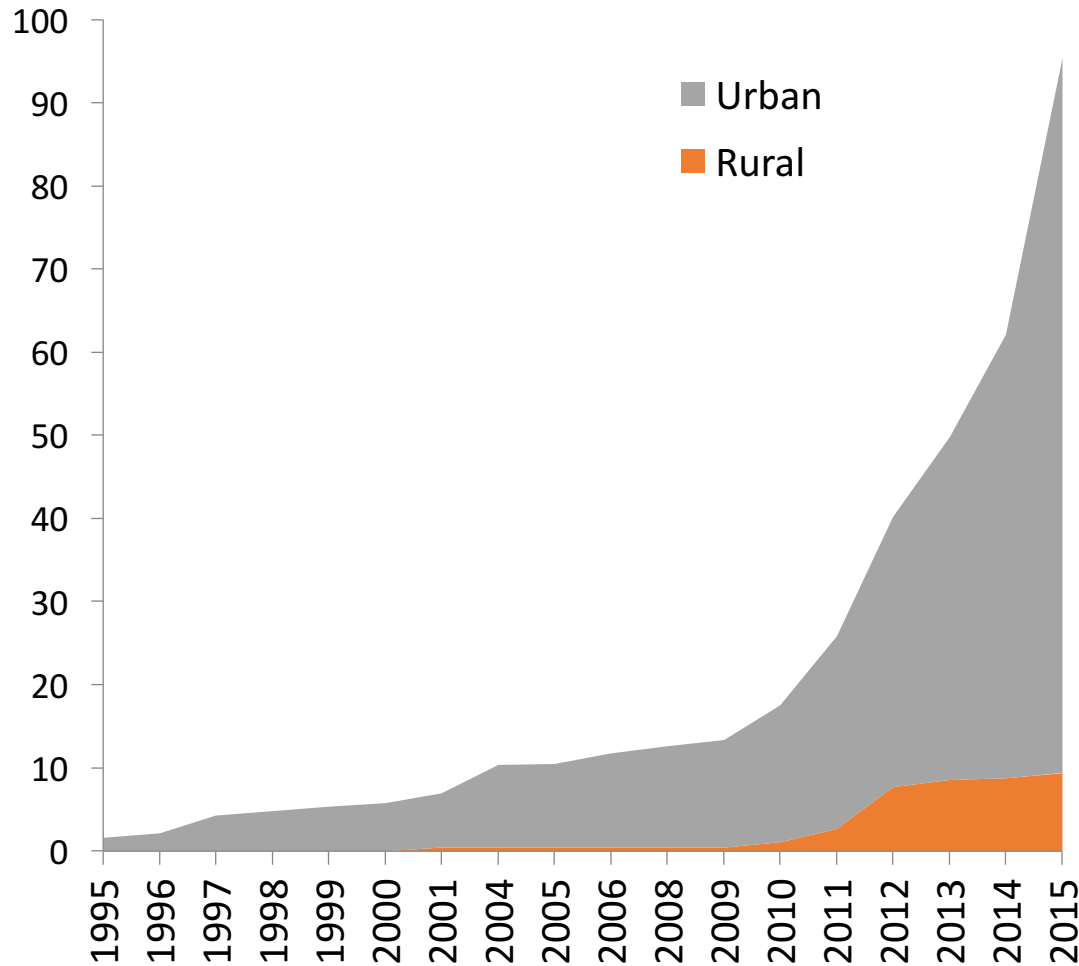
Cumulative share of primary, lower secondary and upper secondary schools established, by year (1917-2017)



2. Accelerating migration, rising wages



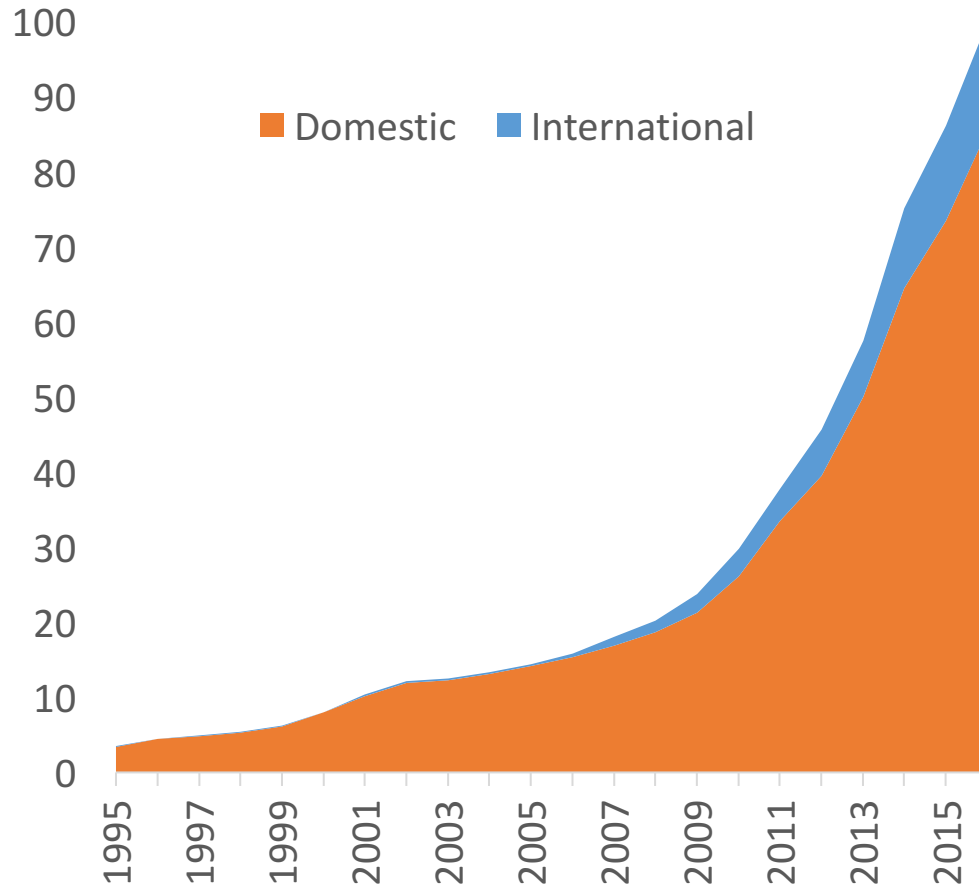
Accelerating migration in Delta...



- 90% rural-urban
- 92% domestic
- 16% of HH have migrants
- Average migrant age 21
- 55:45 male/female split
- 70% employed in manufacturing

Cumulative share of all migrants by year first migrated (%), 1995-2015 (MAAS)

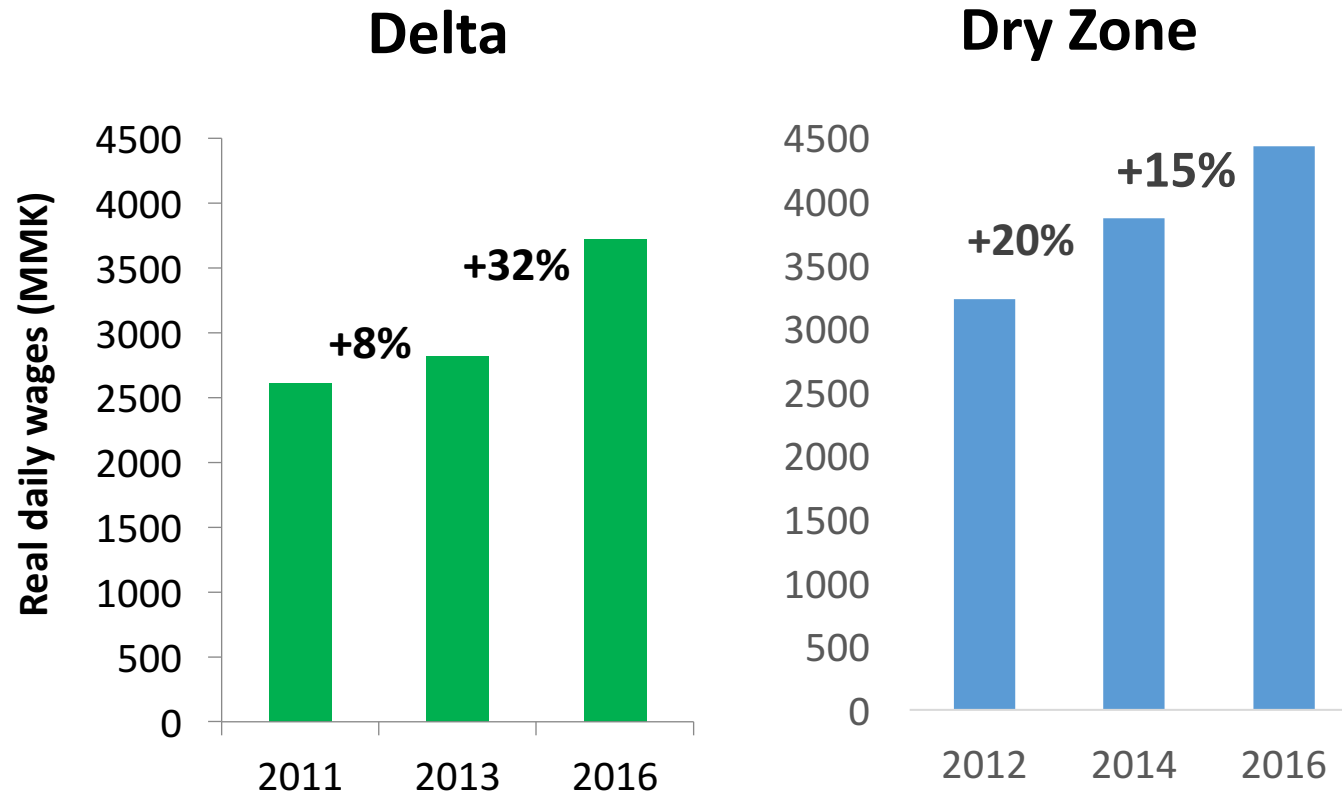
... and Dry Zone



- 86% domestic
- 19% of HH have long term migrants
- Average migrant age 24
- 56:44 male/female split
- 26% employed in manufacturing
- 55% low-skilled informal jobs

Cumulative share of all migrants by year first migrated (%), 1995-2016 (READZ)

Migration is driving large rural wage increases

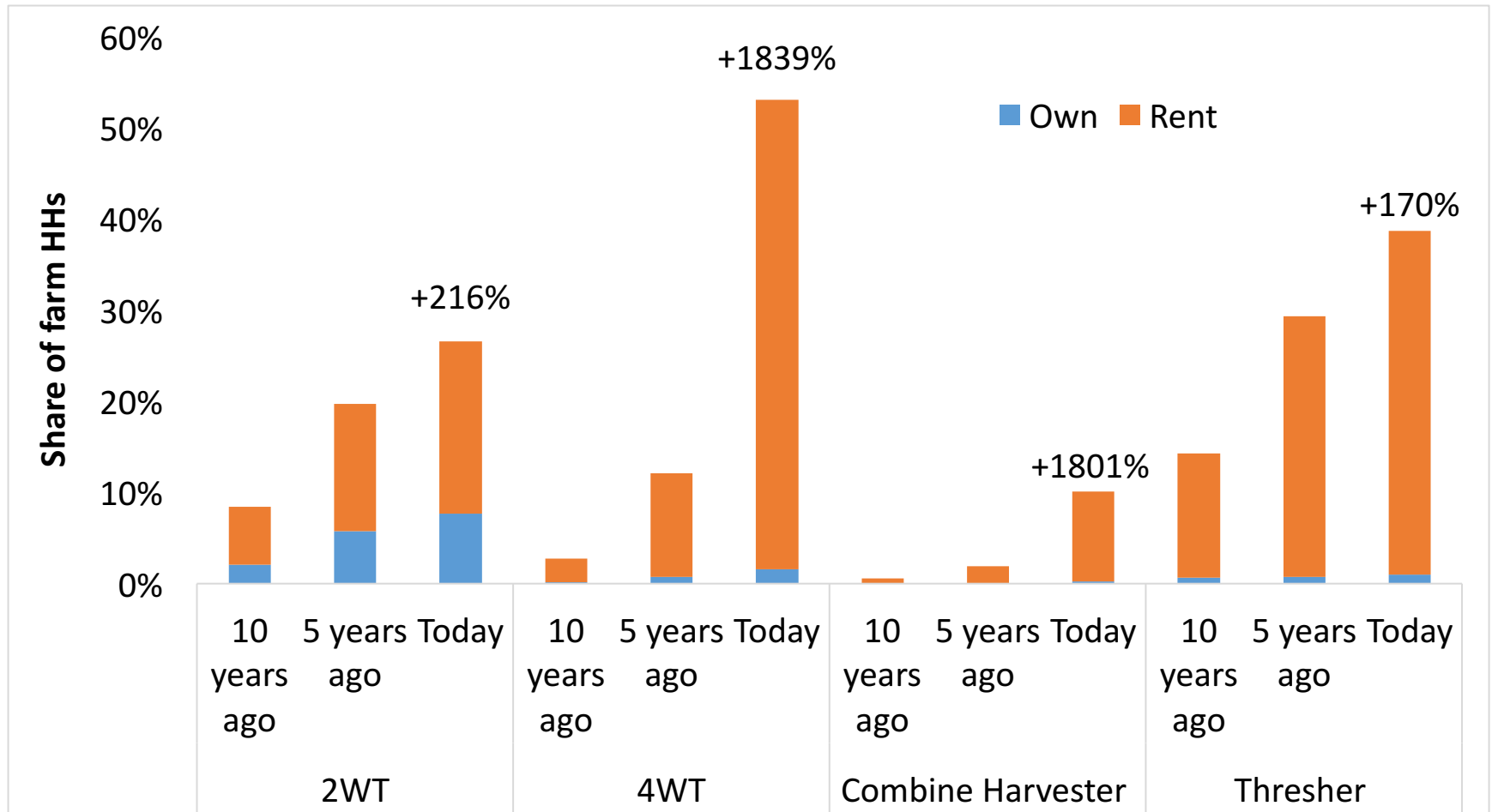


Change in real daily wages for male casual workers (MAAS & READZ)

3. Agriculture mechanizing rapidly

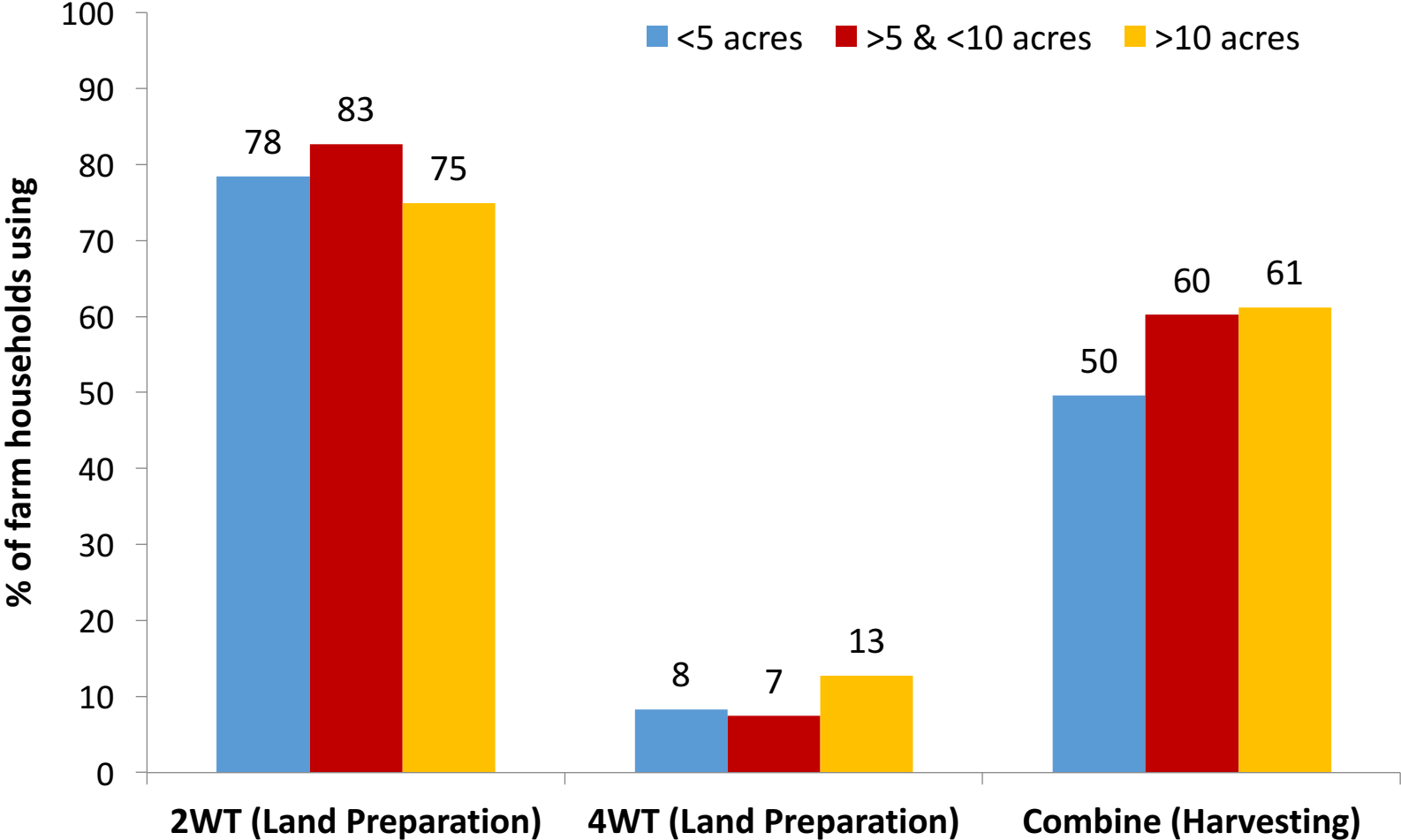


Rental services enabling access to machines



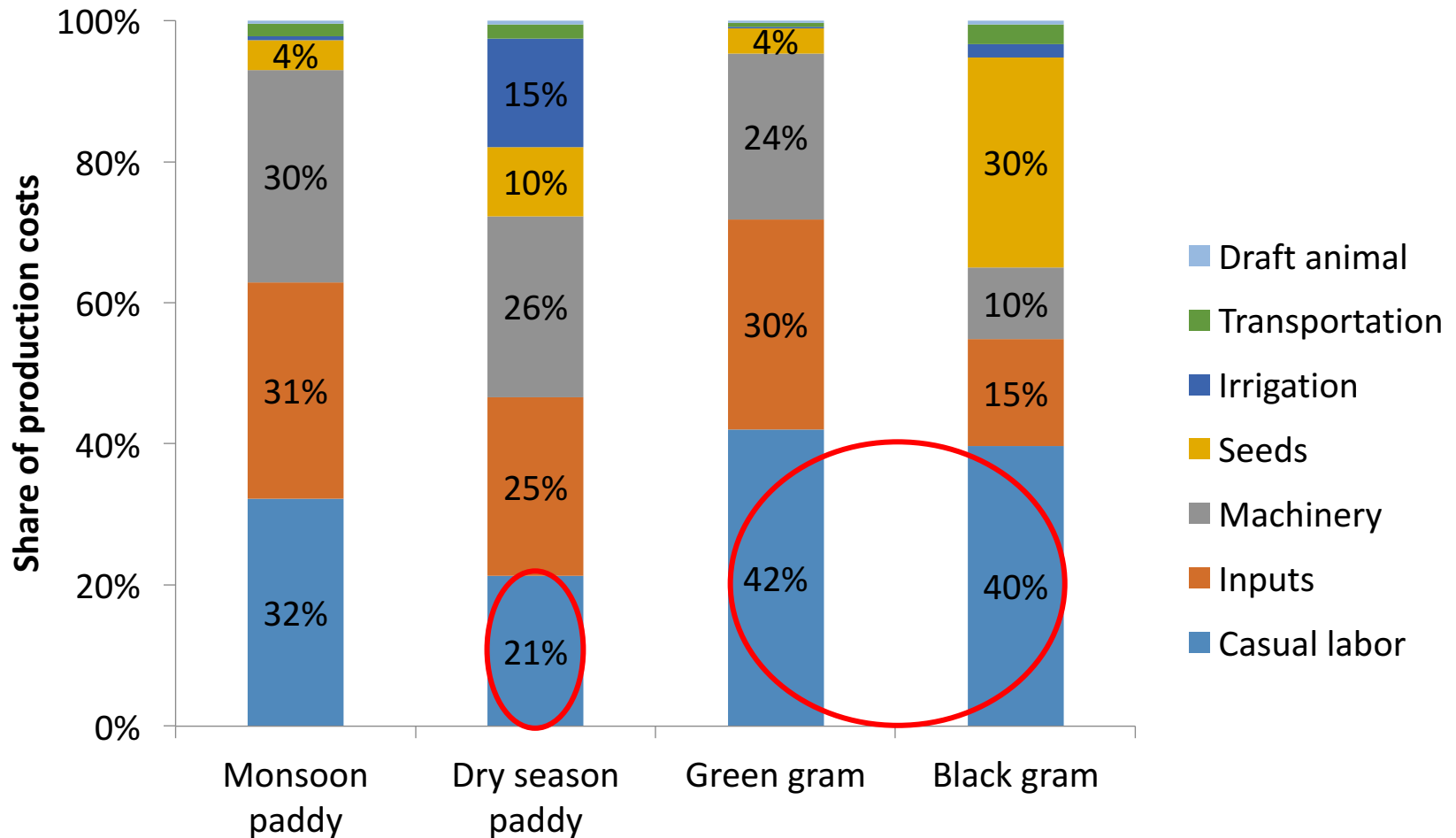
Share of farmers using machinery, by machine type, year and ownership status (READZ)

Scale-neutral technology



Share of households using agricultural machinery, by size of landholding (MAAS)

Mechanization reduces labor costs

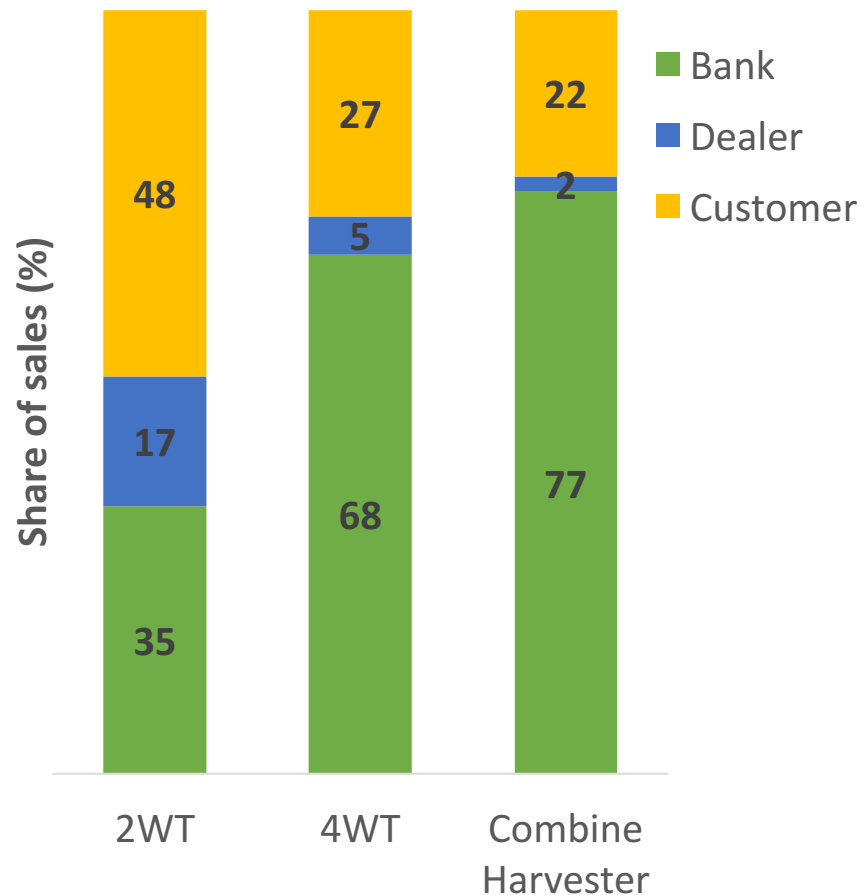


Composition of production costs, by crop (MAAS)

4. Access to formal credit is improving



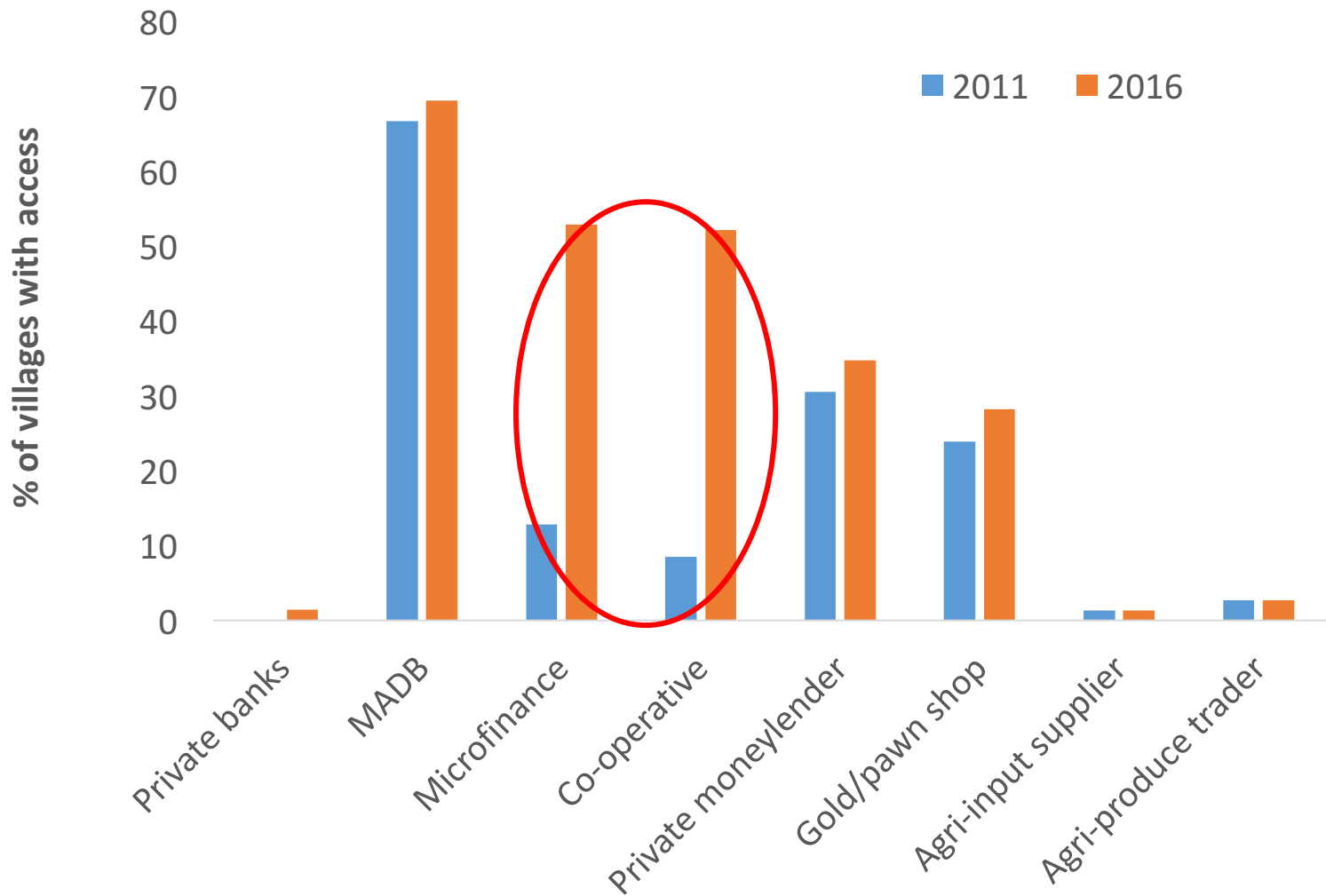
Improving access to formal financial services for machine purchases



- Hire purchase agreements with commercial banks began in 2013
- Reduced capital constraints for machine suppliers, cost of credit to buyers

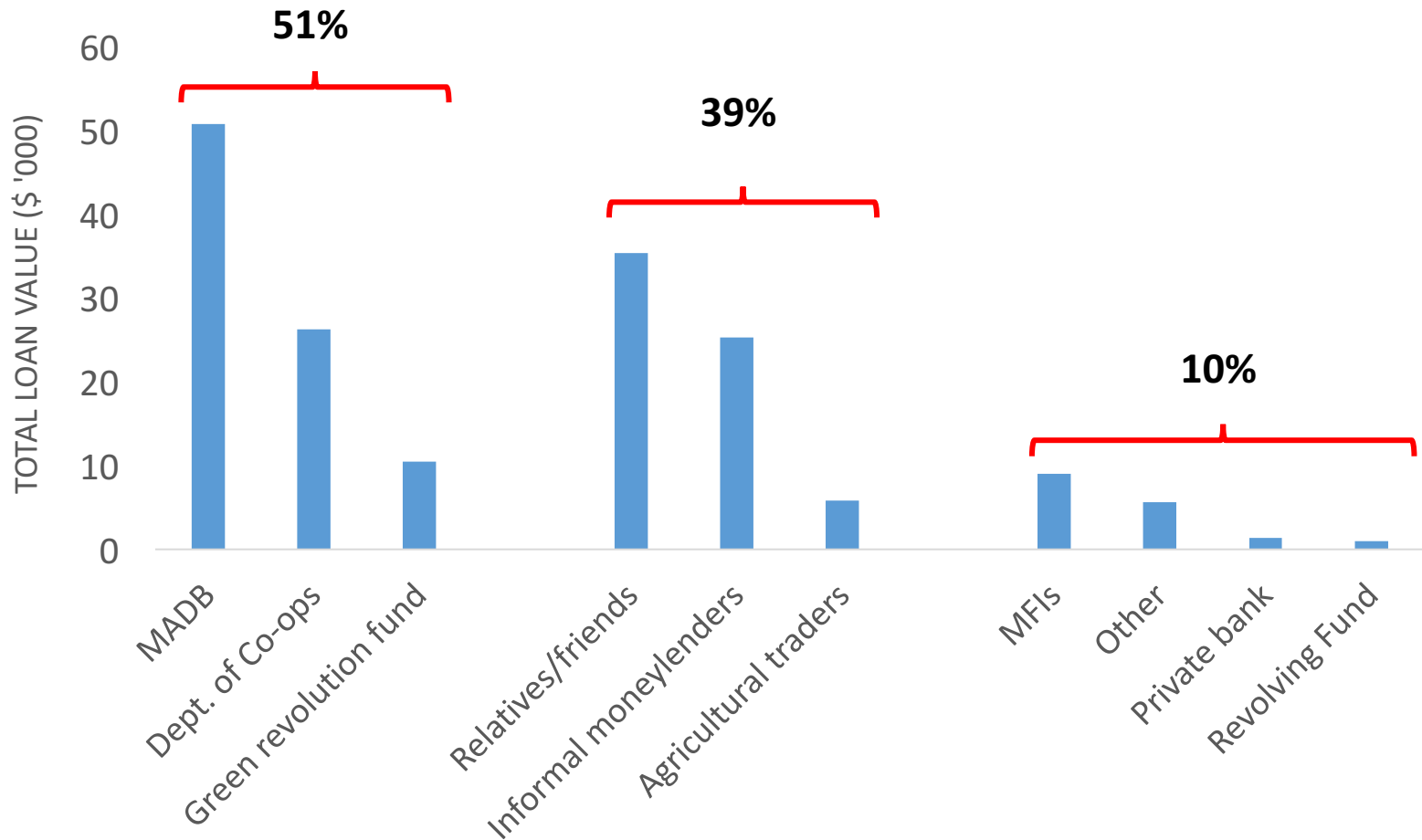
Source of finance for machinery purchases, 2016 (MAAS)

Sources of credit diversifying



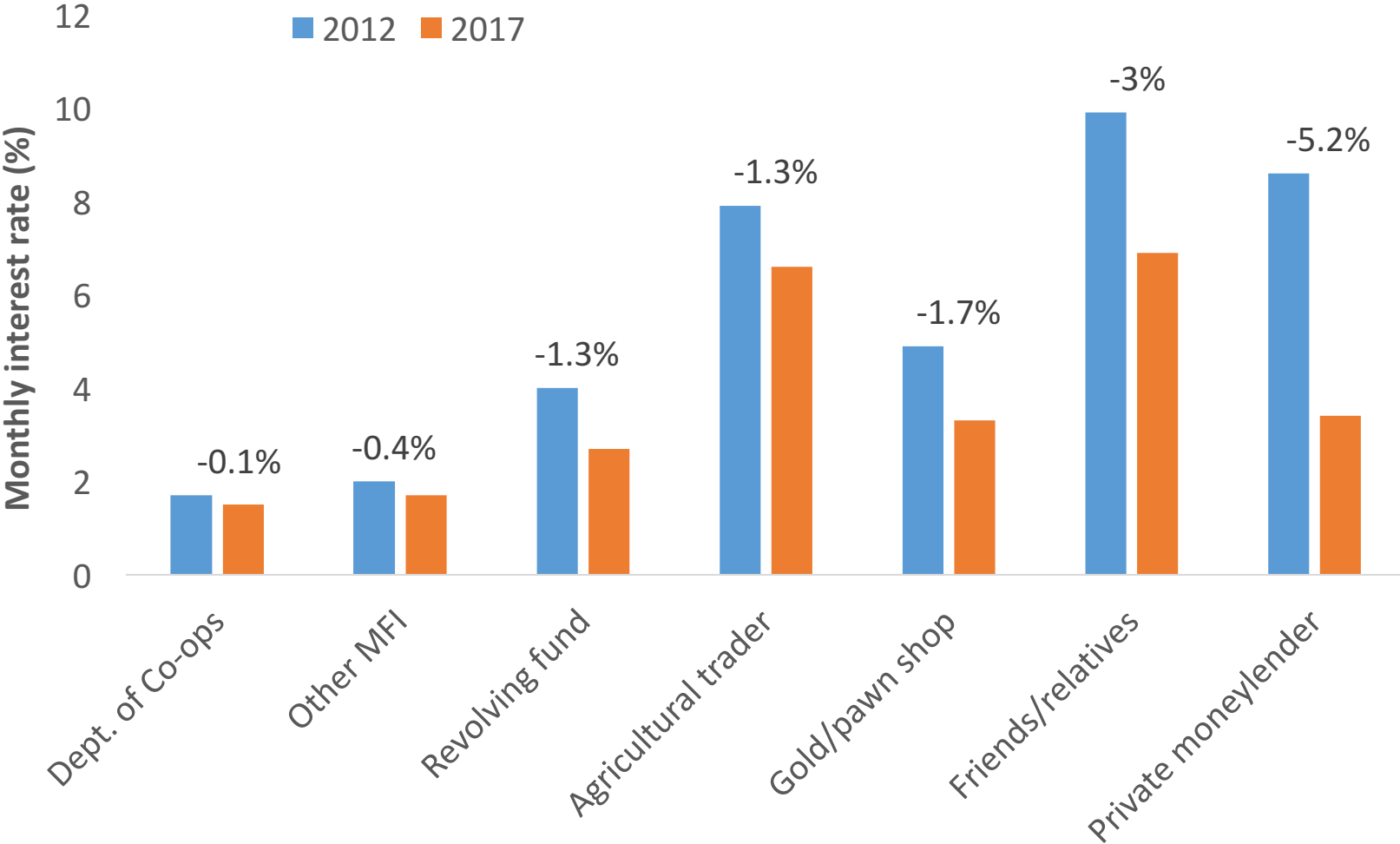
Share of villages with credit access by source, 2011 & 2016 (MAAS)

Most agricultural credit from formal sources, government is biggest loan provider



Total value of agricultural loans taken by sample farms in 2016-17, by loan provider (READZ)

Credit becoming much cheaper as sources diversify

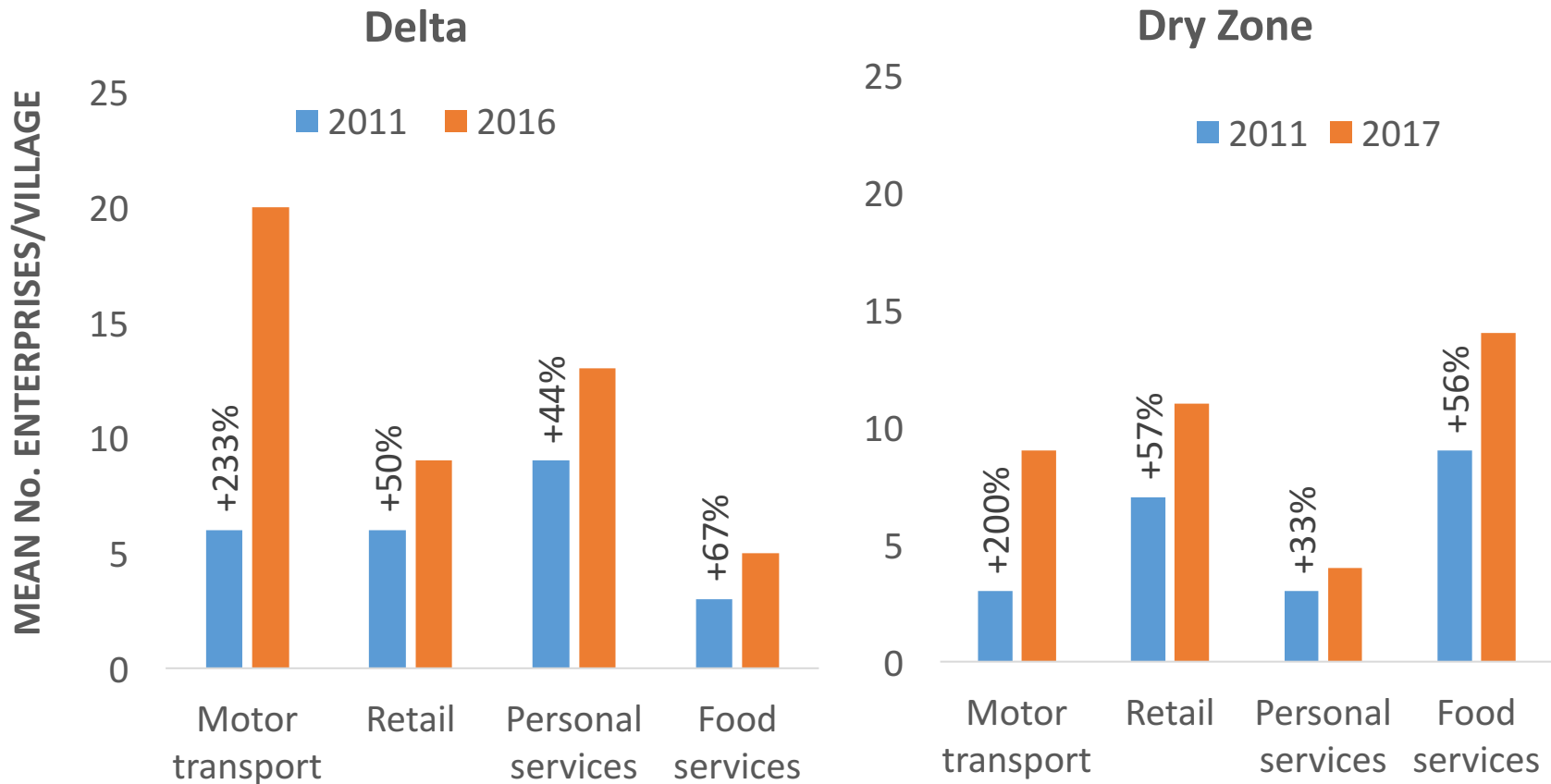


Monthly interest rates from informal lenders and microcredit providers, 2012 & 2017 (READZ)

5. Rural non-farm economy growing rapidly

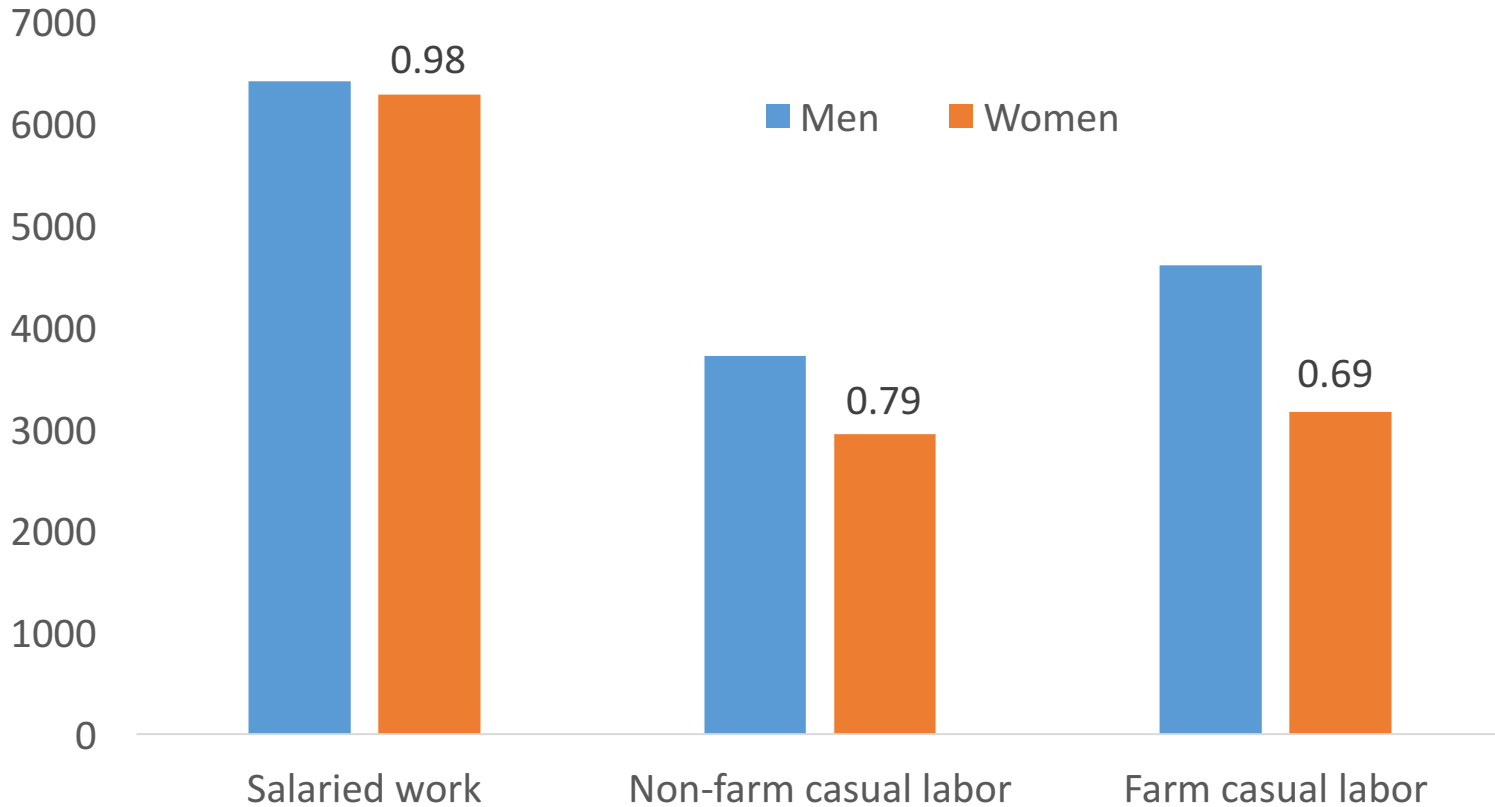


Numbers of non-farm businesses growing quickly

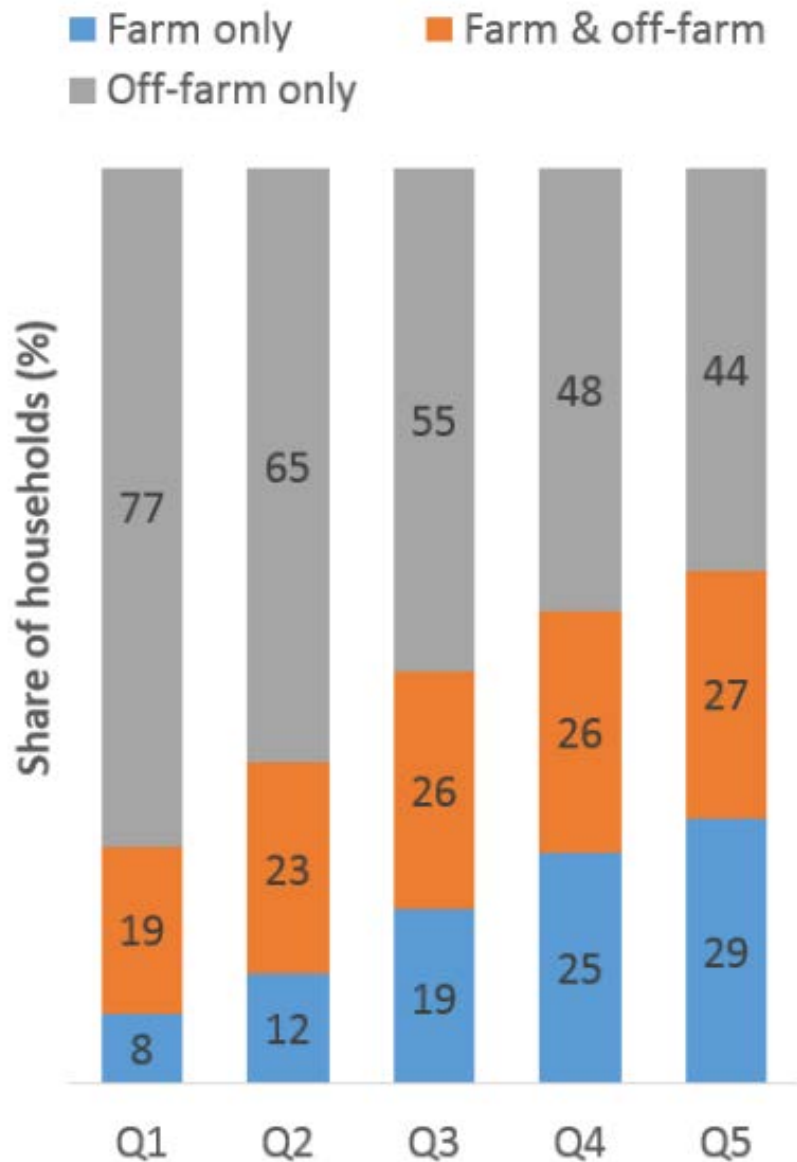


Mean numbers of non-farm enterprise per village by type, 2011 & 2016/17 (MAAS & READZ)

Gender wage gap smaller for non-farm work



Average daily incomes for men and women worker, by type of work, 2017 (READZ)



Off-farm employment important for all

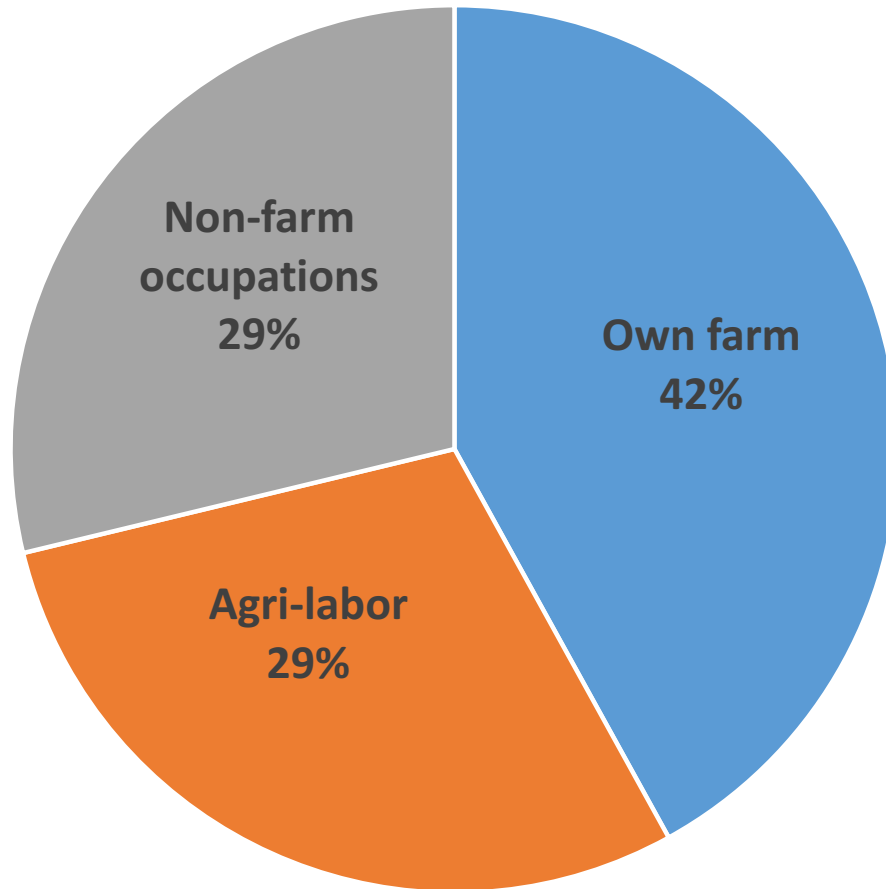
Major role in livelihoods for most households, especially poorest, because of:

High levels of landlessness
(Delta = 58%, Dry Zone = 40%)

Concentration of agricultural land
(Bottom 1/3 of farms own 3-4% of farmland, top 1/3 own 70-80%)

Household participation in farm and off-farm employment by expenditure quintile (MAAS)

BUT: Agriculture still the main source of primary employment



Agriculture provides >70% of primary employment, plus indirect non-farm employment in value chains

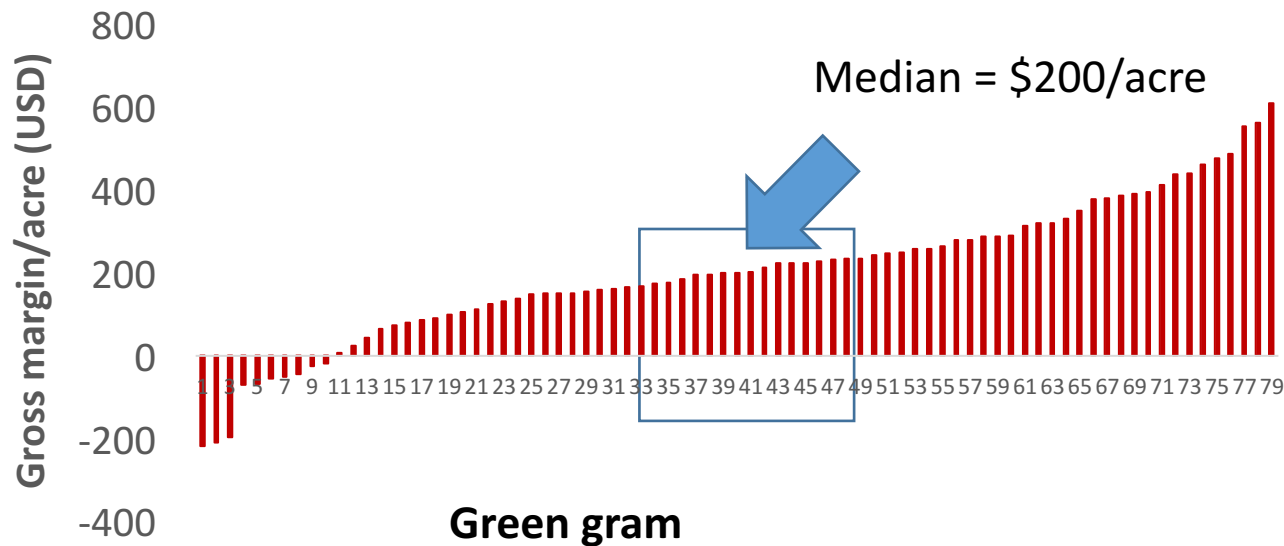
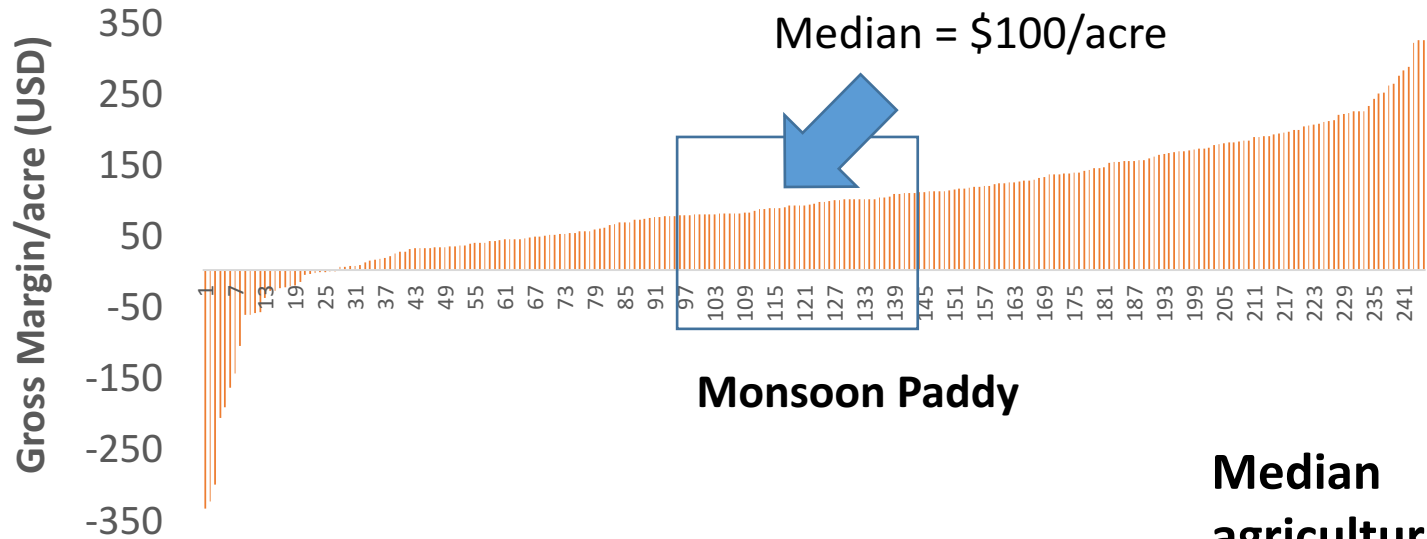
Agricultural labor is 80% of off-farm employment in Dry Zone

Share of individual primary employment, by type (MAAS)

6. Most agriculture performing poorly

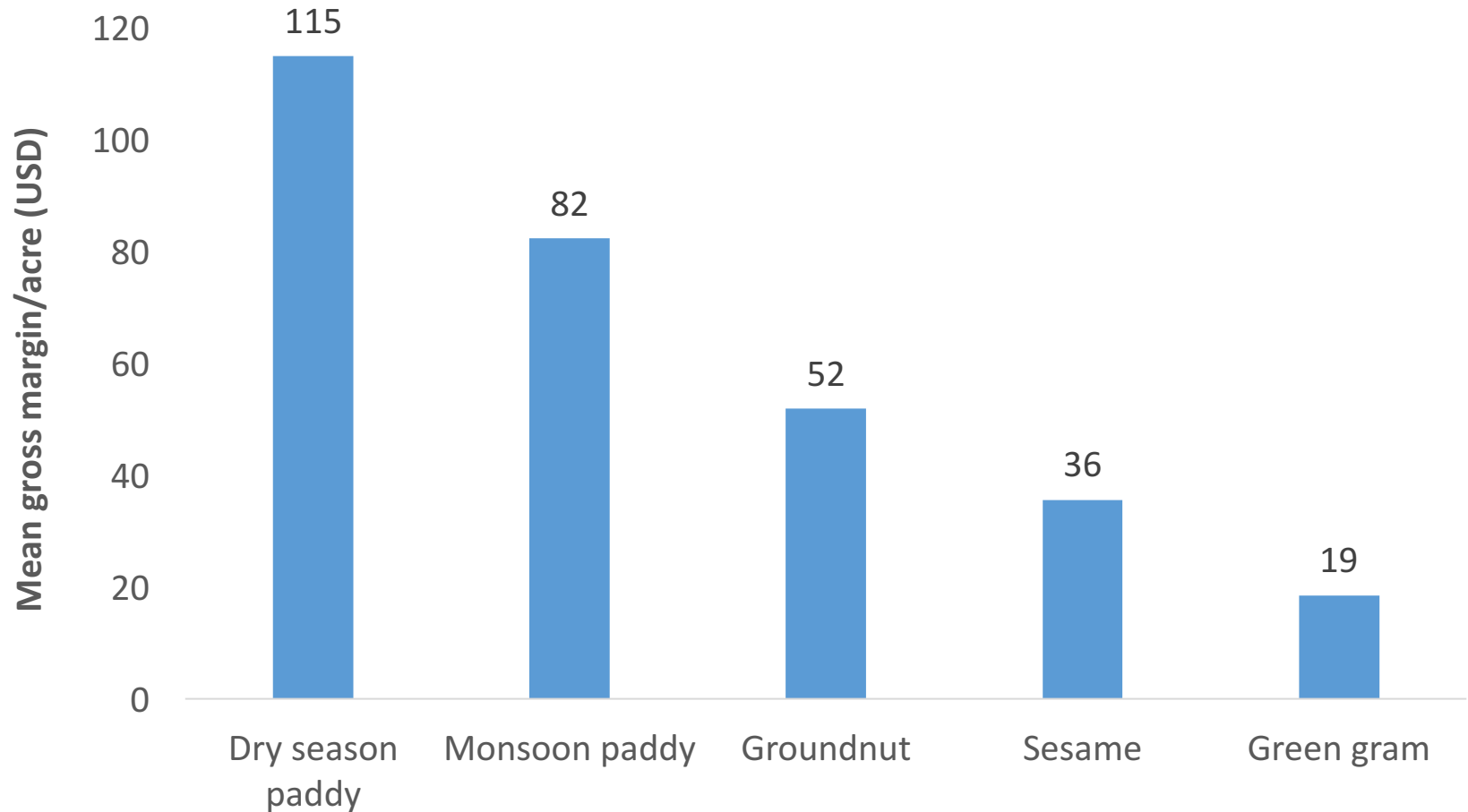


Agricultural productivity remains low



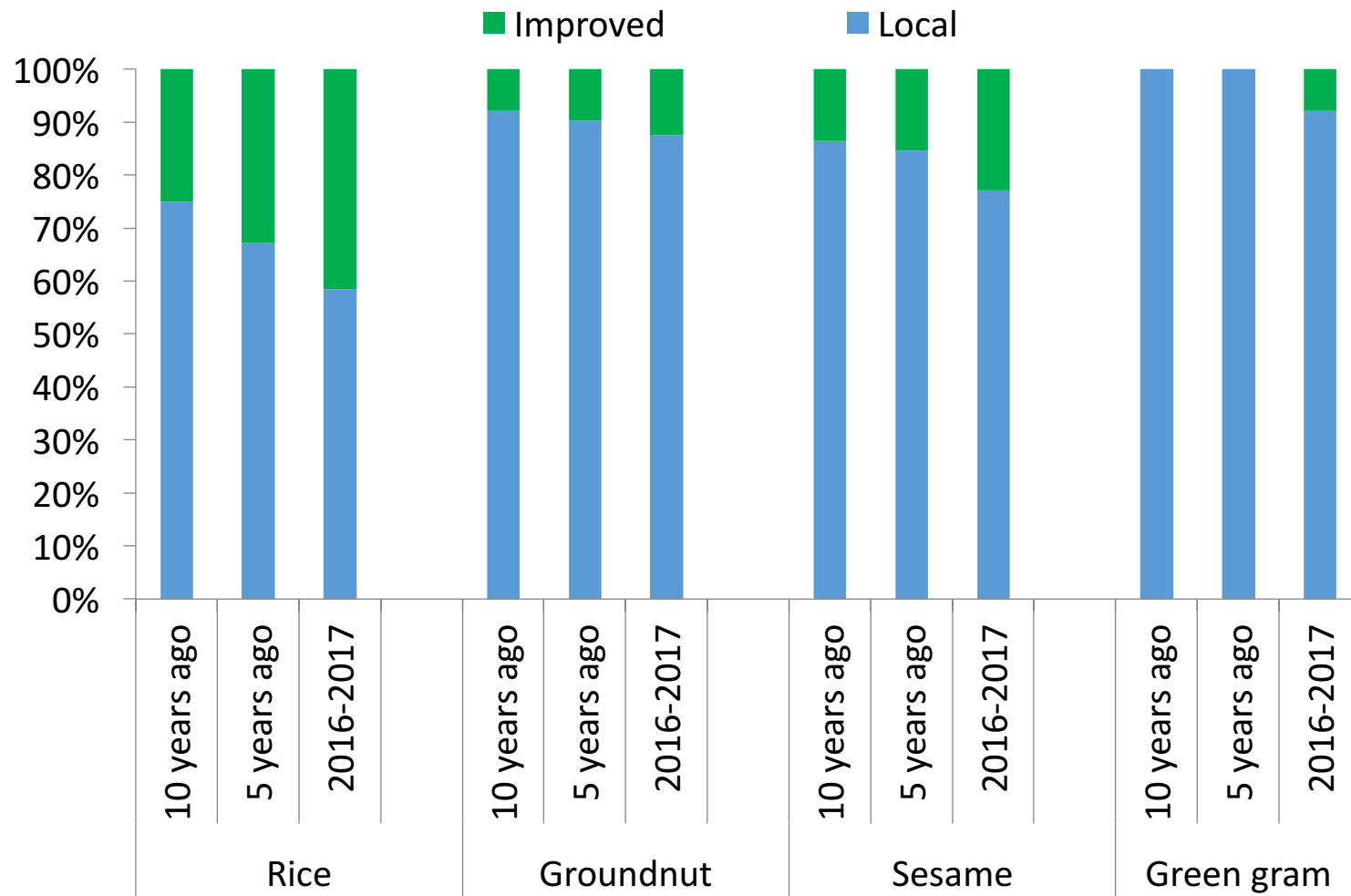
**Median
agricultural land
= 5.5 acres;
Typical annual
agricultural
income =
\$1650/HH, or
\$330/capita**

Returns in the Dry Zone are even lower, especially for upland crops



Mean gross margins (USD/acre) for selected crops (READZ)

Some adoption of improved seed, but progressing slowly



Share of households using improved & local seeds, by crop, 2006-2016 (READZ)

Only rice yields are improving

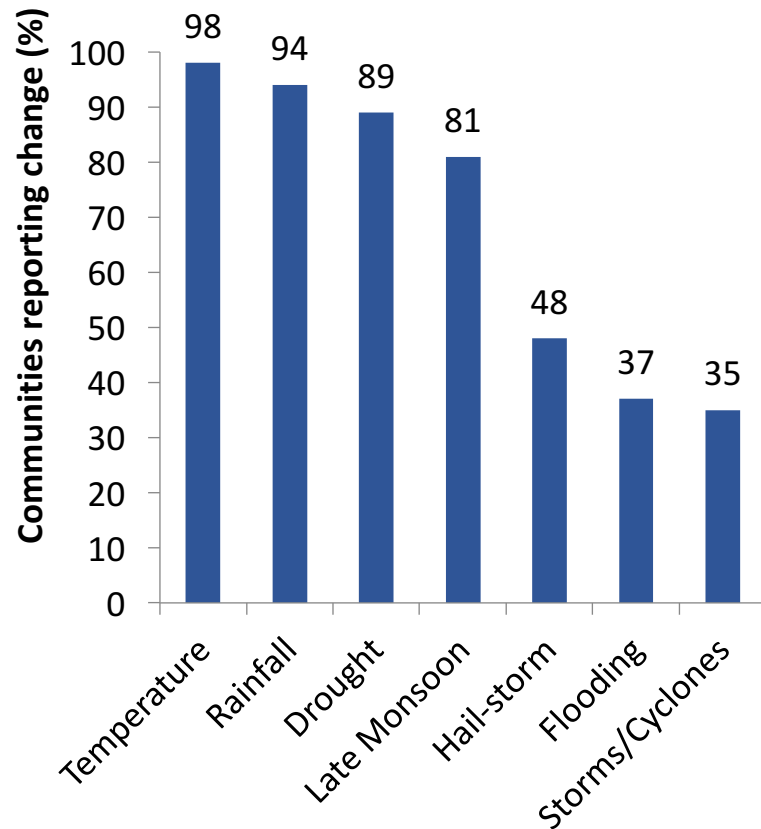


Reported average yields for selected crops (baskets/acre) in 2016, 2011, 2007 (READZ)

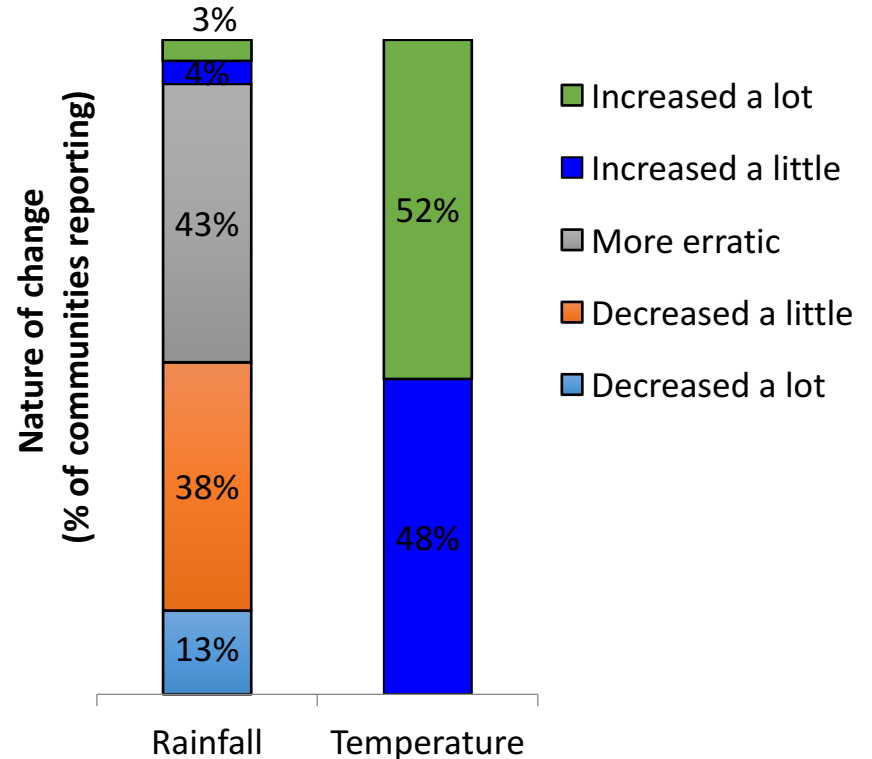
7. Climate change contributing to poor agricultural performance



Increasing frequency & intensity of extreme weather

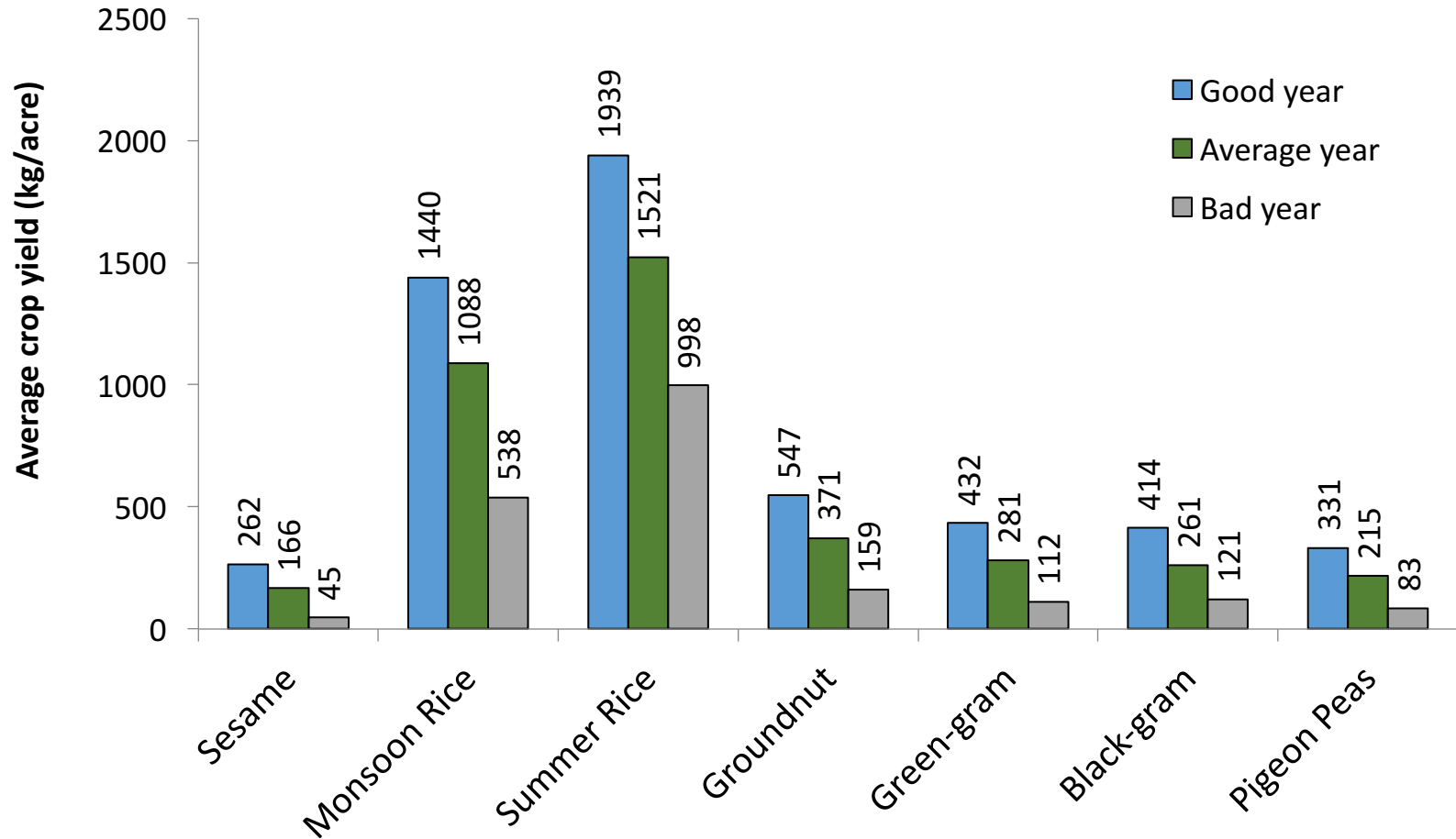


Perceptions of change in the intensity or frequency of climate conditions and events over the past 30 years (READZ)



Community perceptions of changes in average temperature and rainfall over the past 30 years (READZ)

Yields very strongly affected by climatic conditions



Average crop yields (kg/acre) in years with “good”, “average” and “poor” climatic conditions (READZ)

Implications for policy & programming

- Sustain investments in infrastructure, and complementary ‘soft’ infrastructure – well trained teachers, health professionals etc.
- Measures to support safer, less risky, higher quality migration.
- Overcome emerging spatial inequalities in mechanization (e.g. by improving road access, land levelling).
- Microcredit widely available but rarely invested in agriculture or non-farm business; Increase MADB payments for non-paddy crops
- RNFE complements farming but still provides relatively limited employment – need options for promoting greater productivity & job growth.
- Land-poor HH heavily dependent on agricultural labor. Viable farm sector essential for rural incomes & employment. High value labor intensive crops (e.g. fish, melons); R&D to improve pulse, oilseed & paddy varieties and strategies to multiply and distribute.
- Strategies to mitigate impacts of climate extremes – e.g. groundwater irrigation, water storage, stress tolerant varieties.