

Preliminary Findings of the MSU/MDRI Agriculture and Food Security Diagnostic Team

Michigan State University (MSU) and Myanmar Development Resource
Institute, Center for Economic and Social Development (MDRI/CESD)



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Outline

1. Overview
2. Key findings
3. Strategic options

Objectives

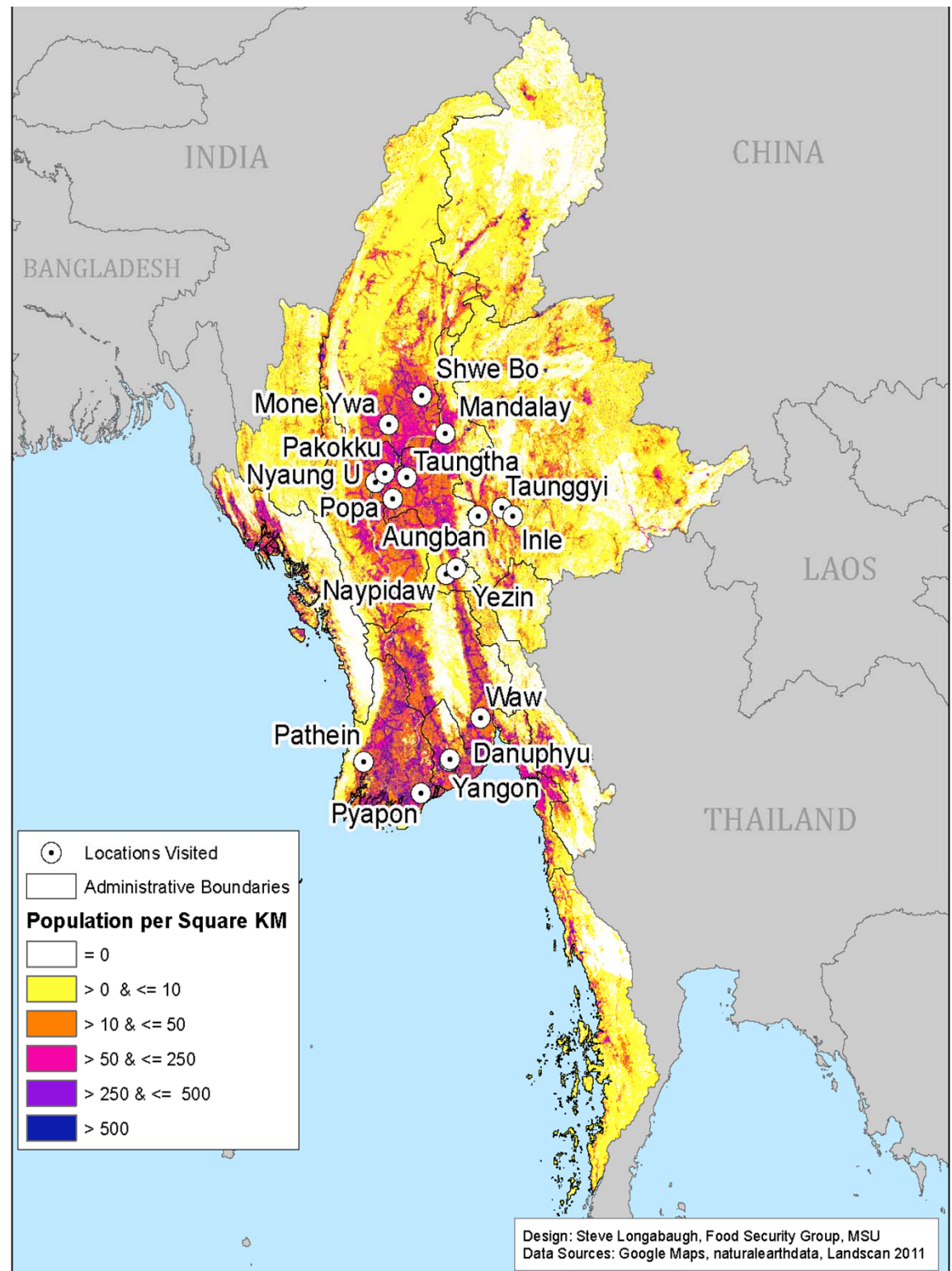
- a) Identify key opportunities for stimulating broad-based agricultural growth and food security.
- b) What needs to happen to realize this potential?
 - public investments
 - supportive policies
 - options for USAID
 - private sector agribusinesses and farmer roles

Team members

MSU	MDRI/CESD
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Methods

- Review recent empirical studies
- Field visits to 3 dozen villages, 2 dozen townships
- Six background papers
- Benchmarking against peer countries



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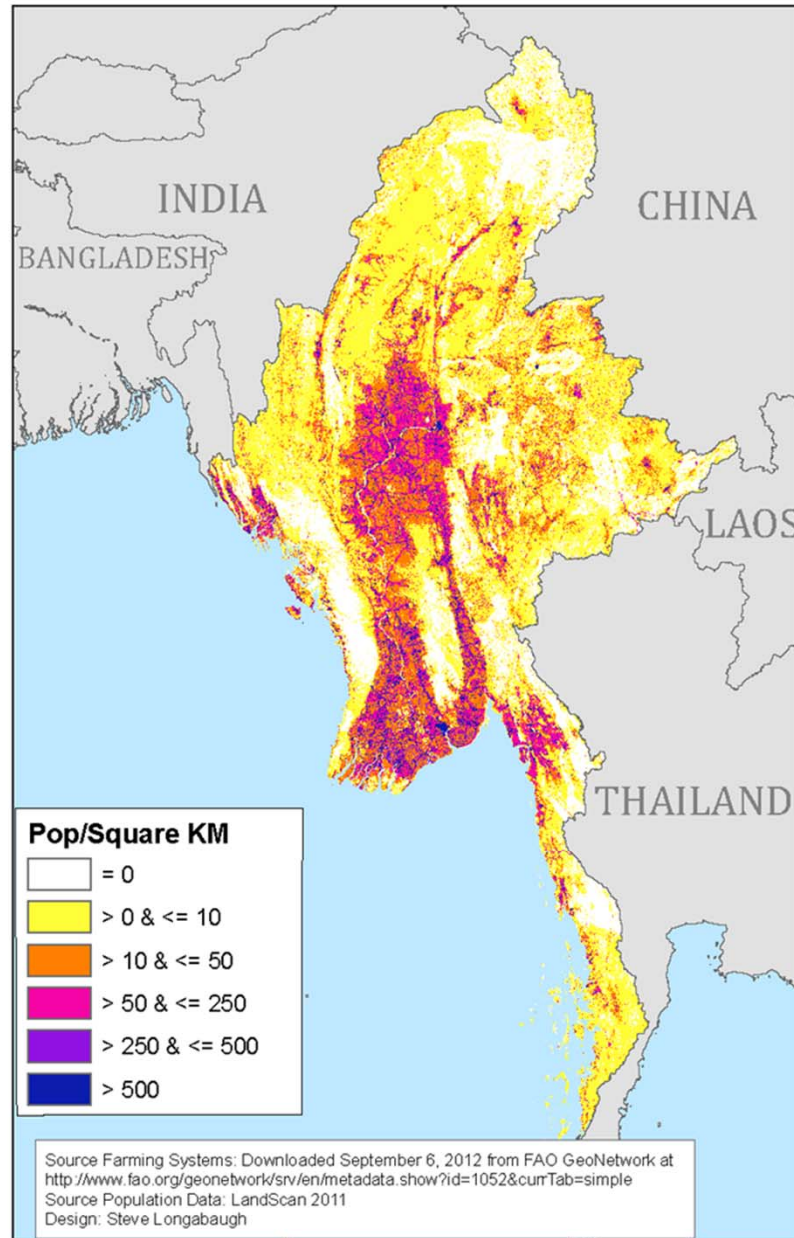
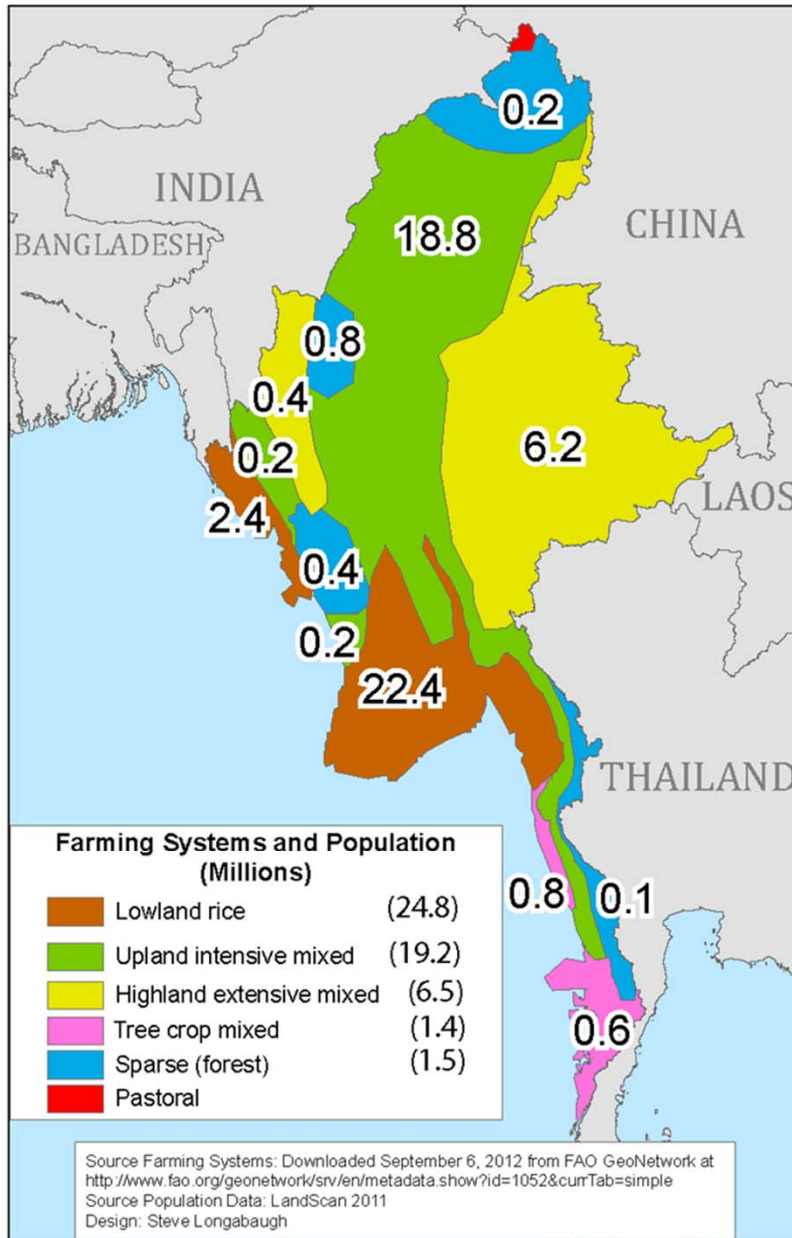
Key findings

- a) High potential
- b) Yet poor performance
- c) Because of structural impediments
- d) Three alternative pathways forward

a) High potential

- **Exceptional resources** (water, land, location, climate)
 - Water: 10 times as much per capita as China and India; 2 times as much as Vietnam, Thailand and Bangladesh
 - Land: 14 million acres virgin and fallow; 83 million acres of forest
 - Strategic location: near major regional markets
- **Diverse ecosystems → diversification potential**

Diverse ecosystems



Large potential for diversification

Production
Growth Rate
1985 to 2010

Cereals

paddy, GOM	3%
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paddy, USDA	1%
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maize	6%
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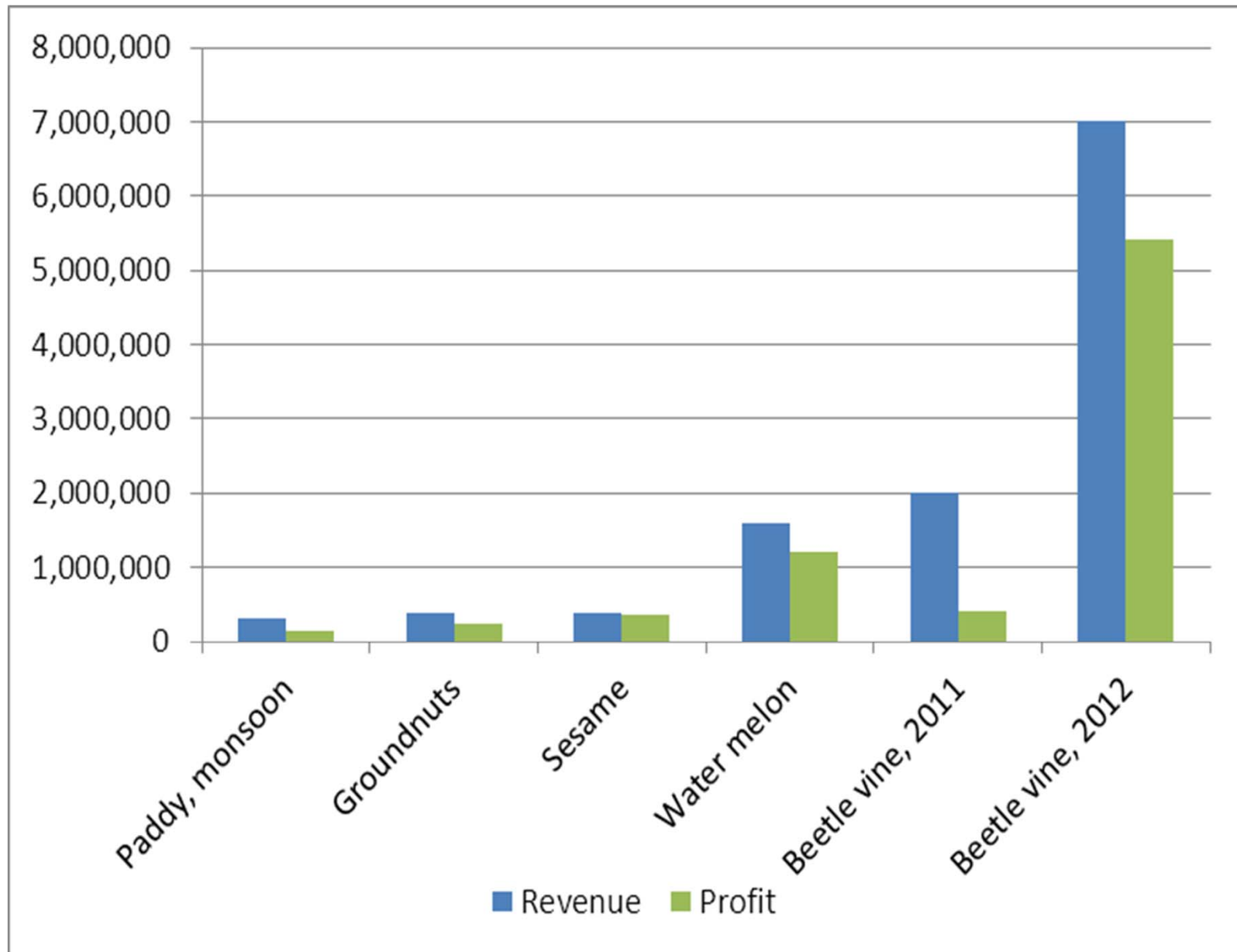
Oilseeds	6%
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Pulses	9%
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Horticulture	7%
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Poultry	6%
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Diversification → growing markets, high value



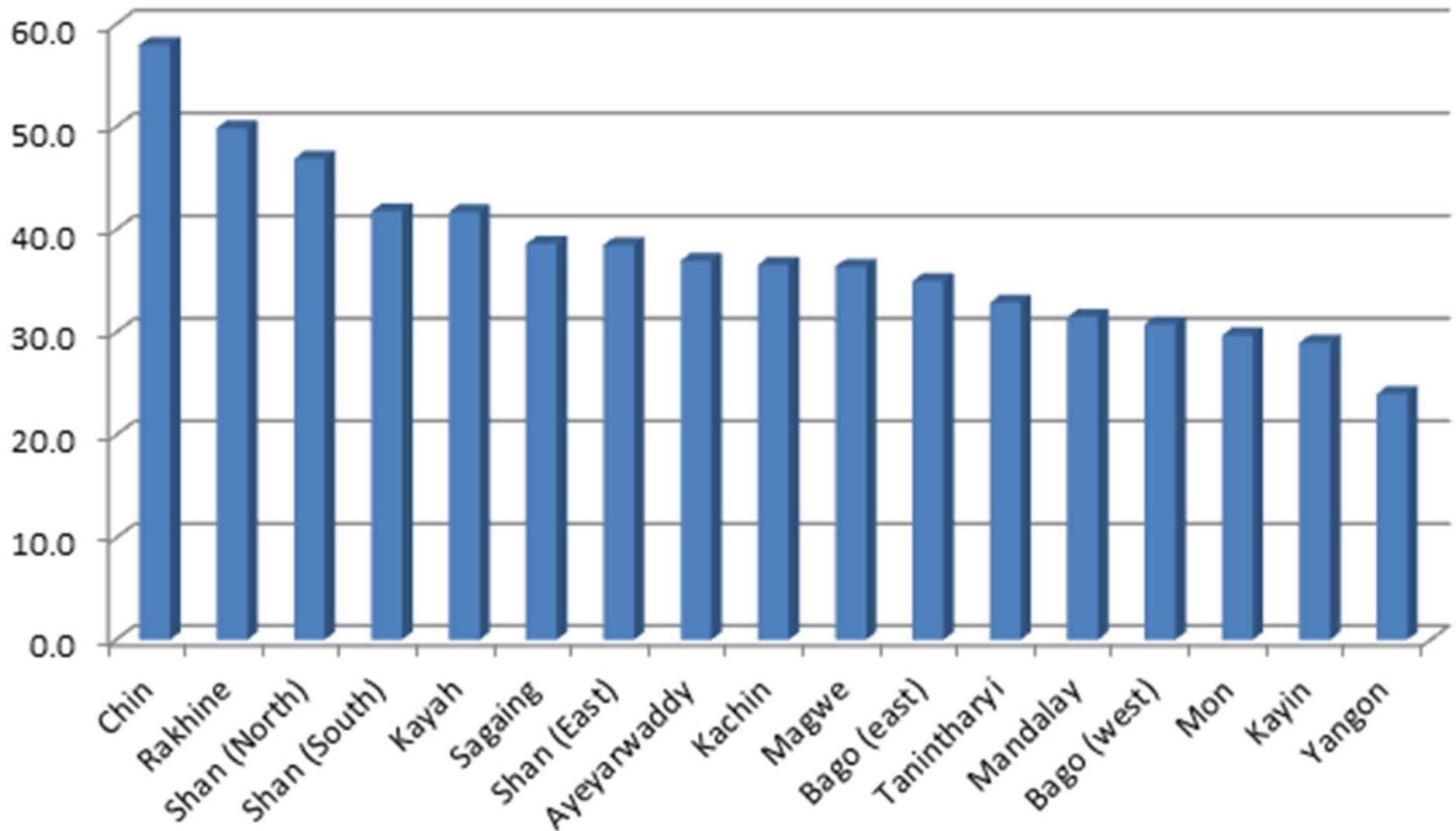
b) Poor agricultural performance

- Low productivity
- Extreme inequality → high poverty, malnutrition
- High volatility

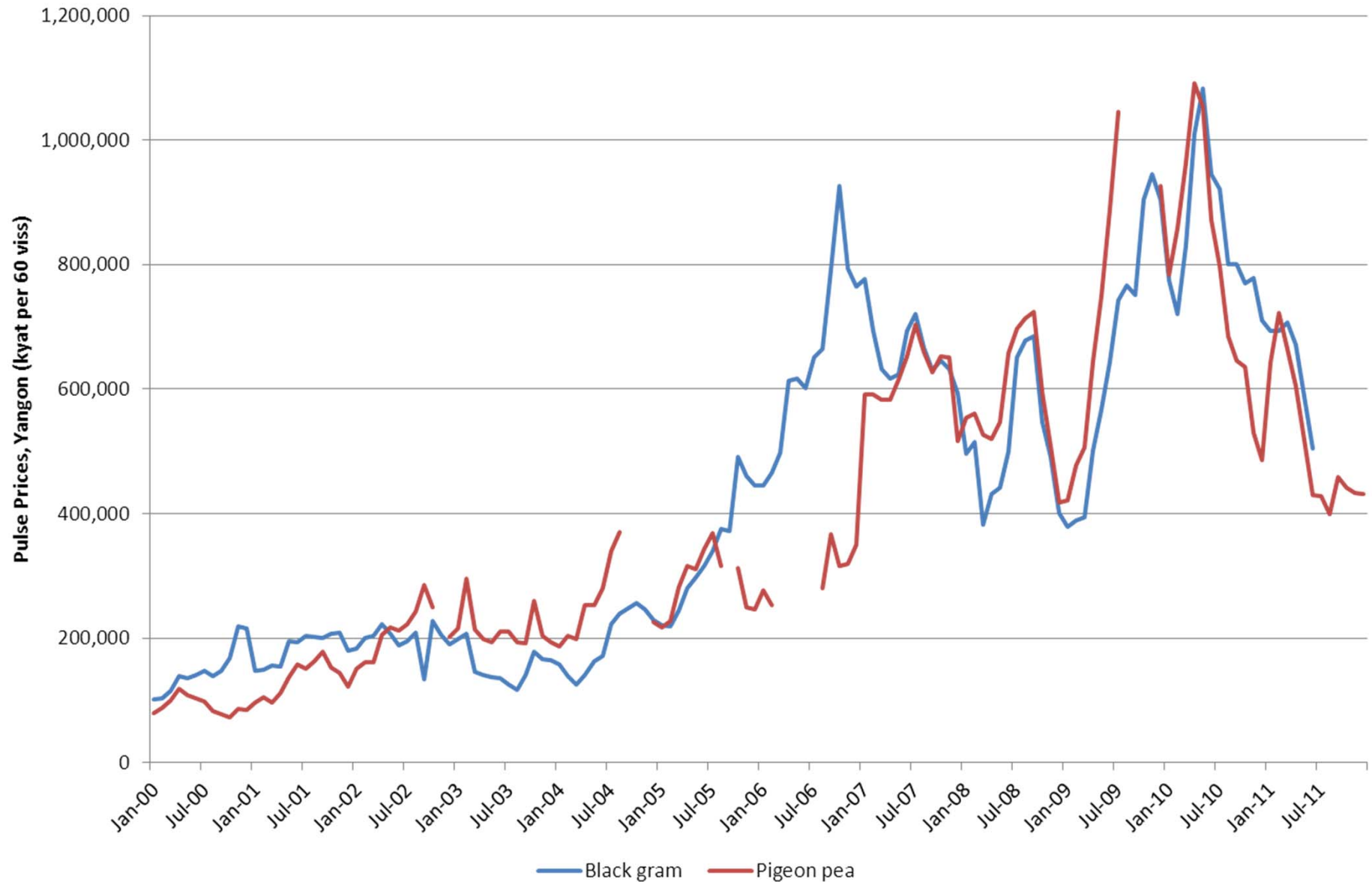
Low agricultural productivity

	Agricultural income per worker	GDP per capita	Poverty (%< \$1.25/day)
South Korea	\$19,807	\$20,540	
Malaysia	\$6,680	\$8,373	4
Indonesia	\$730	\$2,952	3
Thailand	\$706	\$4,614	8
Bangladesh	\$507	\$675	11
Cambodia	\$434	\$795	5
Vietnam	\$367	\$1,224	4
Myanmar	\$194	\$380	26

High levels of food insecurity: Stunting by state/region



High volatility



c) Structural requirements for broad-based agricultural growth

- Improved water control
- Reduced transport and transaction costs
- Conflict mitigation
- Predictable policies
- **Improved access to land**
- **Increased budgets for key supporting ministries**
- **Reforming agricultural support institutions**
- **Effective, responsive farmer organizations**
- **Improved data quality**

Skewed land access

	<u>Percent of Rural Households</u>		
Land owned (acres)	Delta/ coastal	Dry Zone	Hilly Areas
0	72	43	26
< 5	7	37	63
5 - 10	9	12	9
> 10	12	8	2
total	100	100	100

Source: LIFT Baseline (2012), Table 54.

Limited public budget for agriculture

Location	Agricultural research spending (\$ per \$100 in agric. output)
Developed world	2.40
Sub-Saharan Africa	0.72
Developing world	0.53
Asia, 2008	0.41
Myanmar, 2003	0.06

Source: ASTI (2009).

Structure of agricultural support institutions

- **Need to strengthen** links between farmers, research and extension
- Control and monitoring functions well developed; institutional culture and resources for listening to farmers, linking them to research solutions poorly developed
- Policy has liberalized but [ministerial support structure has not]. **Need to strengthen ministerial support structure for new policies.**

Farmer organizations weak

- **Illegal before 2011** (other than government-controlled cooperatives)
- Labor law now permits organizing
- Freedom of assembly permits gatherings

Unreliable data

Item	Data variability
Population	+/- 20%
GDP growth rate	+/- 160%
Rice production	+/- 50%
Cattle population	+/- 40%

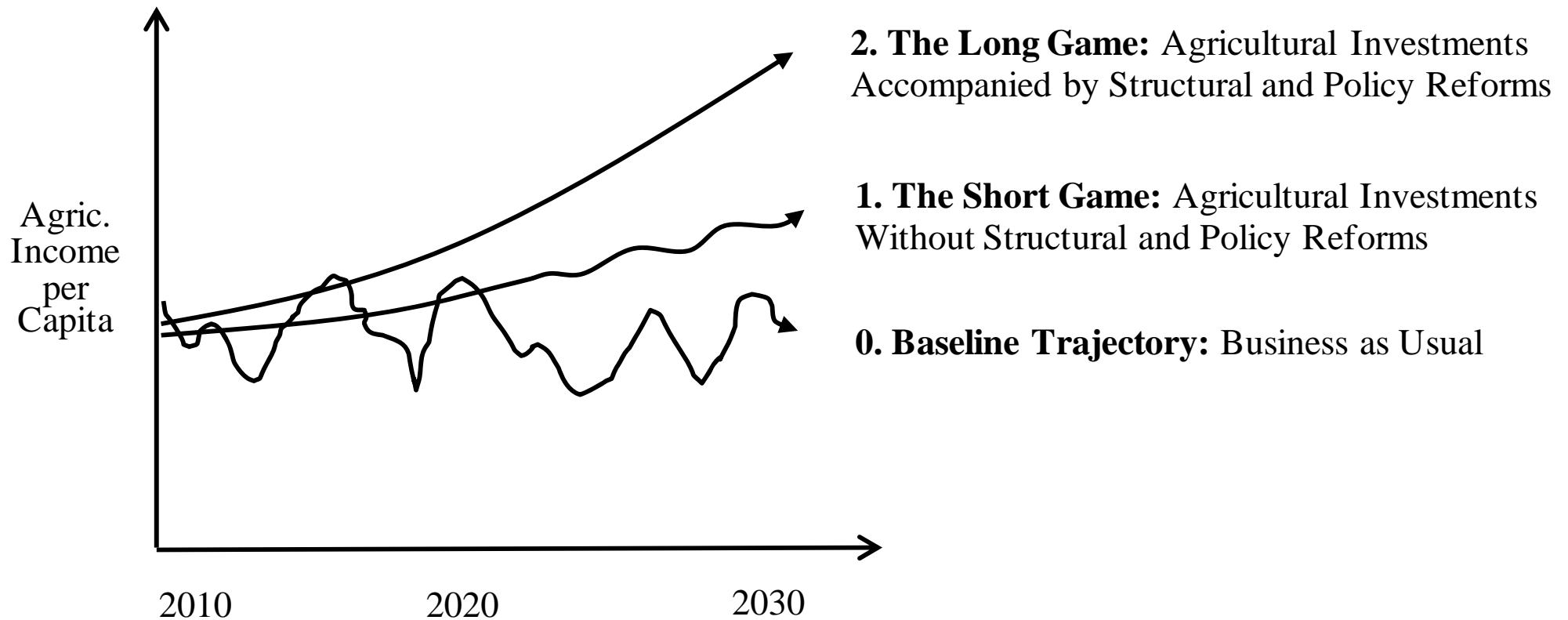
Unreliable data

- Prevent sound policy decisions
- Limit transparency in policy discussions
- Impede private sector investment

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Three Alternative Pathways



Business as Usual

- Low productivity agriculture
- Inequitable distribution of assets & income)
→ high poverty & malnutrition
- High volatility

Myanmar can do better!

The Long Game:

Structural and Policy Reforms Necessary for Rapid, Broad-Based Agricultural Growth

- + increase public resources for agriculture
- + structural reform of support institutions

- market-oriented, farmer-centered research system
- extension mobility and modernization
- agricultural education investments
- farmer organizations

- + improve data quality
- + predictable policies
- + improved water management systems
- + improved land access
- + rural education

The Short Game:

Improving Performance in the Absence of Structural and Policy Reforms

- + productivity of monsoon rice
- + diversification → high-value horticulture, fishing, poultry
- + build human capital of landless children
- + safety nets




Short Game Productivity Gains:

+25%-50% increase in paddy yields in 5-7 years

- Timely and effective land preparation
- Better adapted varieties
- Seed quality improvement
- Fertilizer levels and precision of use
- Weed control (especially direct seeded rice)
- Integrated pest management
- Improved water distribution and management
- Farm consolidation and mechanization
- Post harvest quality management
- Diversification of summer crops

Complementarities

	Short Game	Long Game
Farming	<ul style="list-style-type: none"> + agronomic practices + seed quality + diversification: high-value, scalable (horticulture, poultry, fish ponds) + water management + agricultural graduate deployment 	<ul style="list-style-type: none"> + land access + water system management + institutional reform (research, extension, education)
Value chain	<ul style="list-style-type: none"> + data quality + post-harvest handling + target niche markets + cell phones + micro-finance, remittances 	<ul style="list-style-type: none"> + predictable policies + intermodal transport system logistics + rural financial institutions + farmer organizations
Landless	<ul style="list-style-type: none"> + high value agriculture + nonfarm income + education access (FFE) + nutrition packages (horticulture, poultry, education, public health) 	<ul style="list-style-type: none"> + high-wage careers (children) + education curriculum reform

Team Recommendations

- Focus on Long Game reforms and associated early actions
- Complement with Short Game

Long Game Early Actions

1. Public expenditure and institutional review of agricultural ministries (crops, livestock, fishing)
2. Train a new generation of agriculturalists (UDOCs)
3. Land policy monitoring & support
4. Farmer groups micro-irrigation
5. Water control system assessment
6. Statistical system upgrading
7. Rural cell phone expansion
8. Rural finance: MADB assessment
9. Rural education: pilot reforms focused on landless children

Short Game Early Actions

1. Synthesize existing best practices
2. Review regional experience promoting high-value activities for landless households
3. Pilot rural education and nutrition programs
4. Pilot safety nets

Conclusions

- Importance of the Long Game
 - Myanmar's regional competitors (China, India, Vietnam, Bangladesh) have committed to Long Game investments and reforms
 - To remain competitive in agricultural markets, Myanmar will also need to commit to the Long Game.
- Landless children: Given 50% rural landlessness, future prosperity and political stability in Myanmar will depend on developing human capital and livelihoods options for the children of today's landless.

Strategic Options for the Landless

Parents: high-value activities, minimal land requirements



Children: long-term investments in human capital



Nutrition



Education