Agribusiness Investment Models for Inclusive Growth in Myanmar

Diagnosis and Ways Forward.

Our Team

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Major Differences in Farm Structures Across Borders

- **Burma**: 2 M ha land for large farms. Average > 2,000 ha.

**Definitions**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMFs</td>
<td>Market-oriented small and medium-size farmers</td>
<td>Say &lt; 50 acre but depends on enterprise</td>
</tr>
<tr>
<td>SMEs</td>
<td>Small and medium nonfarm enterprises</td>
<td>Say &lt; 100 employees</td>
</tr>
<tr>
<td>ABCs</td>
<td>Agribusiness companies</td>
<td>At least 100 employees (companies—mostly vertically integrated)</td>
</tr>
</tbody>
</table>
Objectives

To provide strategic policy priorities on:

1. How to design agribusiness models based on SMFs to accelerate growth and poverty reduction?
2. How to design large-scale agribusiness farming models (if needed) to be sustainable (econ, social, env)?

Methods

Quick (but clean!) diagnoses of seven value chains

- Sesame, maize, rubber, oil palm, sugarcane, & poultry

Review of experiences in the region

- Especially Thailand but also lessons from Vietnam, Laos and Cambodia
Process

- **November/December**
  - Review of available knowledge including regional experiences
  - Meetings and interviews with key stakeholders
    - Private sector, farmers, associations, CSOs, gov officials
  - Field visits to 5 states/regions
- **January/February**
  - Draft report for comments
  - Initial findings discussed in seminars with policy makers, researchers and key stakeholders
- **Now**
  - Finalization and dissemination events
Agricultural Growth is Especially Effective for Growth & Poverty Reduction

- Few economies of scale in farming
  - Asia--Example of Green Revolution

- SMF-based strategy
  - Both efficient and equitable
  - High rural inequality reduces agriculture’s effectiveness

GDP growth from agriculture benefits the income of the poor 2-4 times more than GDP growth from non-agriculture (WDR 2008)

Thailand: Case Study of SMF-Based Development

GROWTH + POVERTY REDUCTION

World’s top exporter of rice, rubber, cassava. In top 3-5 for sugar, F&V, poultry, processed foods

KEY ELEMENTS OF THAI SUCCES

- National commitment to end poverty
- Policy open to trade and markets
  - Strong agribusiness sector
- Public investment and efficient state support
  - Roads, irrigation, extension
- Strong land institutions
Large-Scale Farming Models Sometimes Justified

- Factors favoring large-scale
  - Close coordination with processing
  - Demanding market standards
  - Pioneering risks—new crops in new areas

- Large scale can be inclusive if:
  - Good jobs, training, technology spillovers, social infrastructure

Myanmar Agriculture and AgBiz: Overall Outlook

### POSITIVES
- Strong markets
  - Incomes and urbanization
  - Regional integration
  - Global exports and prices
- Good resource base (land and water/capita), diversity
- Strongest asset
  - Millions of small and medium scale farmers!
  - 2.3 Million > 5-50 acres

### NEGATIVES
- Poor investment climate
  - Infrastructure
  - Legacies of previous govts
- Weak state capacity
  - Lack of public goods and services for SMFs
- But
  - Open borders
  - Spirit of reform
  - Many initiatives
### Myanmar at a Cross Roads

<table>
<thead>
<tr>
<th><strong>AGBIZ ➔ GROWTH AND POVERTY REDUCTION</strong></th>
<th><strong>AGBIZ ➔ RISKY BUSINESS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Involves and upgrades value chains based on SMFs</td>
<td>Based on large land concessions</td>
</tr>
<tr>
<td>- Markets, technology, value chain financing</td>
<td>- Overlaps with rights of existing land users</td>
</tr>
<tr>
<td>- Creates good jobs for a growing rural labor force</td>
<td>- Creates high inequality in land ownership</td>
</tr>
<tr>
<td></td>
<td>- Clears forests of HCV</td>
</tr>
<tr>
<td></td>
<td>- Economic risks too if:</td>
</tr>
<tr>
<td></td>
<td>- Inexperienced investors</td>
</tr>
<tr>
<td></td>
<td>- Speculation on cheap land?</td>
</tr>
<tr>
<td></td>
<td>- Example of Cambodia</td>
</tr>
</tbody>
</table>

### Diagnosis

**Business models in 7 value chains**
Inputs

Production

Processing

Marketing and Logistics

Retailer/Consumers

Assets

- Land
- Labor
- Local knowledge
- Entrepreneurship

- Capital
- Market access
- Specialized skills

SME

SMF

SME

ABC

ABC

Relationships ABCs-SMFs – spot markets, close but informal links, formal contracts (price and resource providing)

Selection of Value Chains

- Not covered in previous MDRI-MSU report
- Products with dynamic markets + exports
- Cover a range of business models, from SMF-based to land concessions
- Field visits
- Caveats
  - Quick overview and often only for one major production zone
**Sesame**

**MYANMAR WORLD’S LARGEST PRODUCER**
- MY now world’s largest producer and consumer
  - Multiple uses—oil, snack, exports
- Business models
  - Independent SMFs in spot markets

**BUT MY IS LOSING COMPETITIVENESS**

![Graph showing world exports of sesame](source: FAOSTAT)

**CONSTRAINTS**
- Many
  - Production risks—Low inputs, dryland
  - Lack of varieties
  - Processing- small volumes, old mills
  - Value chain—quality control and standards

**OPPORTUNITY**
- Upgrade value chain for higher quality markets
  - Contract farming incl. with supermarkets
  - Organization of export industry players
  - Branding?
Maize

**BUSINESS MODEL**

- Independent SMFs linked to ABC on inputs (hybrid seed) and output mkt
  - Rising area and doubling yields (< 2 t/ha in 2000 to 4 t/ha 2012)
  - Surge in export markets to over 0.5 M t
- Some contract farming and also 101 program for input financing & extension

<table>
<thead>
<tr>
<th>Year</th>
<th>Myanmar</th>
<th>Thailand</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>0.5</td>
<td>1.0</td>
<td>2.0</td>
</tr>
<tr>
<td>1990</td>
<td>1.0</td>
<td>2.0</td>
<td>3.0</td>
</tr>
<tr>
<td>2000</td>
<td>2.0</td>
<td>3.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**GROWING PRODUCTION BUT MUCH POTENTIAL**

**CONSTRAINT**

- Low margin in relation to high input costs
  - Risky—weather and prices
- Extension
- Soil erosion

**OPPORTUNITY**

- Rapid demand growth
  - Domestic feed
  - Big export market in China
- Scale up adoption of zero tillage + CA practices
- Irrigated maize in cool season
  - BD 60% higher yields and production than MY
Poultry

BUSINESS MODELS
- Broilers—contract farming
  - Well tested model by ABC
  - Inputs, advice, credit
  - Returns > 2 x rural wage
  - Supply chain from feed to processed meat
- Layers—独立的SMFs closely linked to ABC
  - Inputs, advice, but not contractual

MYANMAR SUCCESS STORY

<table>
<thead>
<tr>
<th>Year</th>
<th>Eggs (no/yr)</th>
<th>Meat (kg/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2000</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>2005</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>2010</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>2015</td>
<td>25</td>
<td>50</td>
</tr>
</tbody>
</table>

CONSTRAINTS
- Volatility of feed prices
- Health & trans-border diseases
- Competitiveness under regional trade integration
  - Increase scale of contract growers, or
  - Vertically integrate upstream into production

OPPORTUNITIES
- Rapid demand growth
  - Preference for chicken meat
- Reliable low cost protein meal through local sourcing
Rubber

BUSINESS MODELS

- Asia—Rapid growth, strong export demand
  - > Asian 90% world rubber & 85+% of that smallholder

- Business models MY
  - Independent SMFs selling to processors of RSS
  - Large plantations (> 1000 ac)
    - Directly export to CH & VN

LAGGING YIELDS IN MY

Constraints

- Low yields
  - R&D, extension
  - Access to finance for HY clones
- High price volatility
- Low quality & discounted prices
  - Regulation of standards, price incentives
- Sustainability (deforestation)

Opportunities

- Close large yield gap
- Regulate and upgrade standards
- Build integrated supply chains to the soon-to-be privatized manufacturers
- Look at diversified agro-forestry systems
Rubber – Options for SMFs

1. State-led
   - Extension, grants for HY clones, processing cooperatives, quality standards (TH)

2. Private-sector led
   - Long-term contract farming (2+3 model)?
   - Short-term contract farming—existing trees

3. Public-private partnership
   - Cess (e.g., 1%), Industry Board, certification of standards

Oil Palm

**BUSINESS MODELS**
- Main focus of GoM edible oils policy
  - > major source of oils consumed
- Vertically integrated ABCs
  - 500 ha to > 100,000 ha
- Virtually no SMFs

**CONSUMPTION >> PRODUCTION**

 Imports

 Production
Oil Palm

**CONSTRAINT**
- Competitiveness?
  - Yields, infrastructure
- Lack of R&D, technical support, labor
- Negligible development of concessions (90% ABCs < 10% planted)
- Sustainability (deforestation)

**OPPORTUNITY**
- Review vegetable oils strategy to assess competitiveness and sustainability
- Invite responsible FDI
  - Adhere to RSPO standards on social and environ sustainability
- Design incentives to include outgrowers in concessions

Highlights of Other Value Chains

**SUGARCANE**
- Transition from state to private including JVs and FDI
- Some successful contract farming
  - Still low value share to farmers (48% vs 70% in TH)

**CASSAVA (TAPIOCA)**
- Thailand and Vietnam
  - US $3+ billion export industry
  - SMF based—initially via contract farming
- Myanmar
  - Exports only via ABC
  - Big opportunity
Summary of Business Models

<table>
<thead>
<tr>
<th>Product</th>
<th>Vertically integrated ABC</th>
<th>Independent SMFs</th>
<th>Contract farming</th>
<th>Independent SMFs linked to inputs</th>
<th>Independent SMFs linked to SMEs in processing</th>
<th>Organized SMFs in collective action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rubber</td>
<td>**</td>
<td>*</td>
<td>**</td>
<td>Potential?</td>
<td>***</td>
<td>Potential</td>
</tr>
<tr>
<td>Oil palm</td>
<td>***</td>
<td>Potential</td>
<td>Potential</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sesame</td>
<td>***</td>
<td>Potential</td>
<td>**</td>
<td></td>
<td></td>
<td>Potential</td>
</tr>
<tr>
<td>Maize</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cassava</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td></td>
<td></td>
<td>Potential</td>
</tr>
<tr>
<td>Poultry</td>
<td>*</td>
<td>*** (Broiler)</td>
<td>*** (eggs)</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Number of * represents existing model
Potential indicates future options

Well-Known Cross-Cutting Constraints

- **Hardware**
  - Infrastructure- high transport costs, and electricity
- **Software**
  - Financial institutions in rural areas
  - Lack of strong producer organizations
  - Access to technology, extension & agric. education
  - Lack of value chain coordination and regulation
    - Penalty in quality and price
Improvements in investment climate for both SMEs and ABCs

- Invite WB Doing Agribusiness Indicators

Highest potential in agro-processing

- Expected rapid growth and high job multiplier
- Major driver--Improved agric productivity
- Financing investment
  - Target % lending + capacity building (AgriFin)
Review of FDI Rules

- Total FDI stock $191 & 2013 flow only $14 M!
  - Mostly oil palm and seed
- Seek FDI that provides value added
  - Focus on inputs and processing
  - Seek known investors
- Relax rules on FDI in agricultural processing and inputs industry

FDI FLOW IN THAILAND

Foresight and Oversight for Investors

- Clear strategic vision
  - Priority sectors and types of investors
- Capacity to manage investments (MIC + other Ministries)
  - Investor & proposal scrutiny and transparency
  - Streamline approval process
  - Review of ESIA (MoECAF)
  - Monitor implementation of investments

Source: FAO
Agribusiness Input Industry to Drive SMF Productivity

Seed industry
- Already significant activity in hybrid seed
  - But limited competition—build SME seed companies (e.g. India hybrid maize)
  - + Opportunities—Rice, private nurseries (rubber)
- Need to approve and implement new Seed Law
- Strengthen MOAI
  - Allow private companies to produce foundation seed
  - Hardware—seed quality labs

Contract Farming
- High expectations but not a panacea
  - Limited to selected products and markets (high value niche markets, processing requirements)
  - E.g. Sugarcane, horticulture, poultry
- Contract farming for rubber?
  - Long-term outgrower programs for high quality
  - Short-term to upgrade existing trees?
- Food staples such as rice?
  - Only for premium quality (e.g., AGPPS branded rice in VN)
Making Contracts Work Better for Farmers

- Build FOs and negotiating skills
  - Especially on ‘fair share’ of value to SMFs
- Provide model contracts
- Broker tripartite agreements with banks
- Law for contract farming? (TH, VN, IN)
  - Arbitration mechanisms
Collective Action

Industry agrees on cess/levy for:
- Services (R&D, extension, market regulation)
- Replanting grants (?)

Feasible only for some crops
- Major exports, imports, or few mills
- Needs minimum threshold industry value (≈$100 m)
- Candidates—Rubber, s/cane, rice, pulses, oil palm

Institutional arrangements
- Many details—PPP led by private sector
- Requires legislation to implement levy

Options for Managing Cess

<table>
<thead>
<tr>
<th>Administrative status</th>
<th>Own research institute &amp; other services</th>
<th>Fund only that outsources services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parastatal board or council (with industry representation)</td>
<td>Malaysian Oil Palm Board (R, Q) ORRAF (rubber), Thailand (R, E, G) TSHDA (Tea), Sri Lanka (E, G, M)</td>
<td>RDCs Australia (one for each crop) (R)</td>
</tr>
<tr>
<td>Private industry association or council</td>
<td>CENIPALMA, Colombia (oil palm) (R, E) FEDECAFE, Colombia (coffee) (R, E, G, Q, M)</td>
<td>FIRCA, Cote d’Ivoire (all cash crops) (R, E, POs)</td>
</tr>
</tbody>
</table>

R = Research, E = Extension, M = Market promotion & prices, Q = Quality regulation, G = $ for replanting, POs = Producer Org
Managing Large Land Concessions

- Concentrated in Kachin, Taninthary, & Ayarwaddy, Sagaing
- Mainly rubber & oil palm, + Jatropha, s/cane, rice
- Average size of VFV is 6,170 ac
  - But some above 50K acres (despite rules)
- Allocated 0.5 M ac VFV since 2010

Status of Land Concessions

Total 4.7 M acres by 5/2013

- VFV
- Deep water
- Forest land

Excludes 12,000+ concessions to SMFs in Mon State

41

42
Risks of Land Concessions

- Not achieving growth objectives
  - Only about 25% developed (despite rules)
- Overlapping rights, especially in Taungyar
  - Scrutiny processes not open and transparent
    - No requirement for prior public disclosure and consultation with local communities
- Overlapping forests of HCV (Taninthary)
- Lack of capacity to monitor
  - Skills and resources

Next Steps on Land Concessions

- Freeze further concessions to:
  - Demarcate ‘available’ land
    - Existing land users, crop suitability
  - Transfer based on voluntary and informed agreement, fair compensation
  - Build capacity of local communities on land rights, fair deals with ABCs
    - E.g., model contracts, potential profits
  - Accurate and transparent information on deals
  - Capacity to manage on the ground
Maximize Positive Spillovers and Minimize Risks

- Incentives or requirements for outgrower schemes
- Joint ventures with communities based on contributions of land and water
- Requirements for training and technology transfer (esp. FDI)
- CSR for social infrastructure

Outgrower Schemes

- Linked to nucleus estate and processor
  - Indonesia Nucleus + Outgrower Schemes
- State support can reduce costs of setting up outgrowers

![Graph showing area sown by type of producer (ha) from 1980 to 2005 in Indonesia]
For Existing Concessions

- Develop a detailed geo-referenced and field verified public data base
  - GIS coord, investor, investment plan, progress status
  - Examples from Laos (gov) and Cambodia (CSO)
- Strengthen monitoring
  - Field presence of MOAI staff
  - Simple technology (Google Earth+)
  - Cancel non-performers and others not following rules

Explore Potential of SMF Land Concessions

- > 40% of rural families landless or near landless (LIFT, 2012)
- Options:
  1. Look at formalizing rights of informal settlers in VFV or forest land
  2. Organized settlement programs with infrastructure, settling and business grants
     - SLC project Cambodia ($4,000 per settler)
  3. Organized settlement program with perennial crops (FELDA model of Malaysia?)
Final Word

- Optimistic outlook for AgBiz
  - Strong market prospects
  - Success stories from MY and from the region provide base for + ve development outcomes
- Need for strategy to shift to:
  - AgBiz investments based on incentives and models that work with SMFs (biggest asset!)
- Recognize key role of government investments to support SMFs (e.g. R&D)—’long game’
- Possible quick wins in cassava, rubber, irrigated maize, high quality sesame

Extras
INDUSTRY IN TRANSITION

- State to private sector in 2009-11

Business models
- Contract farming SMFs
  - 70% < 2 ha
- JV–Tripartite with bank for tractors & trucks
- Nucleus estate with contract farming
- Vertically integrated ABCs

FARMERS’ SHARE OF PRICE UP BUT STILL LOW

<table>
<thead>
<tr>
<th>Year</th>
<th>Farm price</th>
<th>Market price</th>
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<tbody>
<tr>
<td>2006-07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007-08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008-09</td>
<td></td>
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<tr>
<td>2009-10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010-11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-12</td>
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</tbody>
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Sugarcane

CONSTRAINTS

- Low price share to contract farmers
  - 48% cf 70% in TH
  - Improving over time
  - Lack of trust ABCs and SMFs (some)
- Scale economies in milling
- Land
  - Zoning for mill supply
  - Conversion paddy land to sugarcane

OPPORTUNITIES

- Growing domestic demand and value adding
  - Molasses to ethanol
  - Co-generation electricity
- Export market
  - China
  - EU—under EBA agreement but will need certification
Cassava (Tapioca)

SE ASIA'S NEXT GREEN REV?
- Industry Established 1970s by Thailand--feed to EU
- 2000s take off
  - Starch to China, then feed and biofuel
  - Exports TH and VN > $3 bil
- Also large domestic market
  - Bioethanol, starch

CASSAVA EXPORTS

THAILAND AND VIETNAM
- Initial contract farming
- Now mostly independent SMFs linked to SME processors of starch and dry chips
- Rapid yield gains from varieties and better management, semi-mechanized

MYANMAR
- Huge potential
- Business models
  - Some independent SMFs
  - One v. large vertically integrated ABC
- Potential for SMFs to take the lead
  - Link to CIAT network
Guidelines for Investors

- Principles for Responsible Agricultural Investment (WB, FAO, IFAD)
- Voluntary Guidelines on Land and Natural Resources Tenure (FAO)
- Private Sector Roundtables for Certification
  - RSPO (Palm Oil), BSI (Sugar) etc + EU Biofuel standards

<table>
<thead>
<tr>
<th>Area of concern</th>
<th>Key Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property rights</td>
<td>• Long established occupancy rights are recognized</td>
</tr>
<tr>
<td></td>
<td>• Relevant rights are publicly recorded</td>
</tr>
<tr>
<td></td>
<td>• An accountable &amp; representative structure for local decision-making is in place</td>
</tr>
<tr>
<td>Voluntary transfers</td>
<td>• Expropriation not used to transfer land to private interests</td>
</tr>
<tr>
<td></td>
<td>• Processes for transferring land involve informed consent by existing users</td>
</tr>
<tr>
<td></td>
<td>• Proceeds from land transfers are fair and accrue to actual users</td>
</tr>
<tr>
<td>Transparency</td>
<td>• Relevant information (land prices, contracts) publicly available</td>
</tr>
<tr>
<td></td>
<td>• Agreements are understood by the parties and can be enforced</td>
</tr>
<tr>
<td></td>
<td>• Public sector responsibilities add value, are clearly assigned, performed effectively</td>
</tr>
<tr>
<td>Economic viability</td>
<td>• Effective mechanisms to check technical viability &amp; economic feasibility in place</td>
</tr>
<tr>
<td></td>
<td>• Investments are consistent with local strategies for development</td>
</tr>
<tr>
<td></td>
<td>• Adherence to agreed terms is monitored and enforced</td>
</tr>
<tr>
<td>Environmental &amp; social sustainability</td>
<td>• Areas unsuitable for agricultural expansion are properly protected</td>
</tr>
<tr>
<td></td>
<td>• Environmental policies are clearly defined and adhered to</td>
</tr>
<tr>
<td></td>
<td>• Social safeguards are implemented</td>
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</table>