General Background
General Country Background

- **Location:**
  \[\text{Latitude} : 9^\circ 32' \text{ to } 28^\circ 31' \text{ N and} \]
  \[\text{Longitude} : \ 92^\prime 10'' \text{ to } 101^\prime 11'' \text{ E} \]
- **Area:** 676578 sq. km (Approximately twice the size of Vietnam)
- **Population:** 60 million (2010)
- **Population Growth Rate:** 1.29% (2010)
- **Border area shared with neighbours**
  - China (2227 km+)
  - India (1453 km)
  - Bangladesh (272 km)
  - Lao PDR (235 km)
  - Thailand (2099 km)
- **Population of neighbours (in million)**
  - China (1320), India (1134), Bangladesh (153),
    Lao PDR (5.7), Thailand (63)
- **Main Exports:** Agricultural and Forestry Products, natural gas, gems, industrial raw materials, etc.
- **Main Imports:** Machineries, vehicles, construction materials, industrial raw materials, consumer goods etc
Regional Economic Integration

**BIMSTEC** - Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation, or BIMSTEC, groups together Bangladesh, Bhutan, Burma, India, Nepal, Sri Lanka and Thailand

**ACMECS** - “Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy

**GMS** – Greater Meakong Sub-regions
Current Agribusiness Environment

- An agrarian economy dominated by small holdings

- Predominated by small-scale agro-based industries in general and food processing in particular

- Export of major agricultural commodities are primary and far less value-added
Land Resource Utilization in Myanmar

- Net Sown Land 12.02 mil. ha. (17.8%)
- Fallow Land 0.23 mil. ha. (0.3%)
- Cultivable waste land 5.38 mil. ha. (8.0%)
- Reserved Forest Land 18.36 mil. ha. (27.1%)
- Other Forest Land 15.37 mil. ha. (22.7%)
- Other Land 16.27 mil.ha. (24.1%)
- Total 67.63 mil. ha. (100%)

Source: Agriculture at a Glance
Major Crops in Myanmar
Major Crops

Perennial Crops – Rubber, Palm Oil, Rapeseed, Cotton, sugarcane, etc..
Major Crops

Seasonal Crops: Rice, beans, pulses, edible oil crops etc …
Major Crops

Horticulture crops - Mangoes, Jujube (plum), avocado, Jackfruits, Dragon fruits, Pineapples, Oranges etc.
Major Crops Sown Area

- Paddy: 34%
- Pulses: 19%
- Oil Seed: 16%
- Other: 23%
- Cereals: 3%
- Industrial Crop: 5%

Source: Myanmar Agriculture in Brief 2011
## Summary of Recommended Crops for the States and Regions

<table>
<thead>
<tr>
<th>Sr no.</th>
<th>State/Division</th>
<th>Cultivable waste (000 ha)</th>
<th>Fallow land (000 ha)</th>
<th>Major type of crops recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kachin</td>
<td>1835</td>
<td>7</td>
<td>Orchard, seasonal, plantation crops</td>
</tr>
<tr>
<td>2.</td>
<td>Kayah</td>
<td>20</td>
<td>2</td>
<td>Seasonal, plantation crops</td>
</tr>
<tr>
<td>3.</td>
<td>Kayin</td>
<td>79</td>
<td>19</td>
<td>Orchard, plantation crops</td>
</tr>
<tr>
<td>4.</td>
<td>Chin</td>
<td>1248</td>
<td>1</td>
<td>Orchard, sericulture</td>
</tr>
<tr>
<td>5.</td>
<td>Sagaing</td>
<td>147</td>
<td>28</td>
<td>Orchard, seasonal crops</td>
</tr>
<tr>
<td>6.</td>
<td>Tanintharyi</td>
<td>282</td>
<td>4</td>
<td>Orchard, rubber, oil palm, other plantation crops</td>
</tr>
<tr>
<td>7.</td>
<td>Bago</td>
<td>114</td>
<td>8</td>
<td>Rubber, orchard, seasonal, plantation crops.</td>
</tr>
<tr>
<td>8.</td>
<td>Magway</td>
<td>78</td>
<td>12</td>
<td>Orchard, seasonal crops</td>
</tr>
<tr>
<td>9.</td>
<td>Mandalay</td>
<td>47</td>
<td>90</td>
<td>Orchard, seasonal crops</td>
</tr>
<tr>
<td>10.</td>
<td>Mon</td>
<td>40</td>
<td>2</td>
<td>Rubber, oil palm, orchard, other plantation crops</td>
</tr>
<tr>
<td>11.</td>
<td>Rakhine</td>
<td>128</td>
<td>21</td>
<td>Orchard, plantation crops</td>
</tr>
<tr>
<td>12.</td>
<td>Yangon</td>
<td>4</td>
<td>19</td>
<td>Rubber, orchard, seasonal crops</td>
</tr>
<tr>
<td>13.</td>
<td>Shan</td>
<td>2200</td>
<td>137</td>
<td>Orchard, tea, coffee, seasonal, other plantation crops</td>
</tr>
<tr>
<td>14.</td>
<td>Ayeyarwady</td>
<td>57</td>
<td>18</td>
<td>Orchard, paddy-fish farming, seasonal crops</td>
</tr>
</tbody>
</table>

Total 6279 368
Key Drivers for National Agricultural Development
Highlight of Key Advantages

Geo-political

- Surrounded by 2 mega-powers (China and India) and three other countries (Thailand, Bangladesh and Lao) with a total population of about 2.7 billion people opens a tremendous market potential for Myanmar.

- Hence, great opportunities for “cross-fertilisation” of knowledge, management, technologies, trading and investments.
Myanmar is blessed and endowed with immense resources like Land, Water and Labour.

Wide Bio-Diversity – From Temperate to Tropical providing an agro-ecological/climatic condition conducive to a wide range of crops and herbal plants.
Downstream Processing
This perhaps is one of the most attractive and profitable areas for investment which is relatively untapped. Technology in down-stream processings, funding and marketing need much to be desired in Myanmar.

- Raw materials e.g. agricultural and horticultural crops are readily available for downstream processing e.g. chili, tomato, groundnut, beans and pulses, mangoes, etc., to name a few.

- Perennial crops like rubber, oil palm, coffee, tea, etc. also provide enormous opportunities for midstream and downstream possibilities, e.g. rubber wood furniture utilizing old rubber trees, rubber auto parts, tyres, etc. Similarly, downstream processing of palm oil, coffee, tea etc. has great potential for value addition.
Benefit of Value Adding

Downstream value addition will provide:
1) High value and returns as well as quality products through processing
2) Saving from wastage through maximum utilization
3) Higher return to farmers/fruit growers
4) Introduce knowledge on basic food technology and preservation

Note: Examples of downstream value-adding e.g. Rice, Chili, Jackfruit

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Rice Downstream Processing

1. Rice Grain → Dehusking → Debraning
   - Broken Rice:
     - Pneumatic cleaning
     - Soaked with water
     - Wet Fine grinding
     - Dehydration
     - Half Cooked → Steaming
       - Filament Extrusion (cooked)
       - Drying
       - Packing
       - Vermicelli
   - Drying & Powdered
     - Sieving
     - Packing
     - Raw for all kinds of Rice Based Food
   - Residue for animal feed
   - Bran Oil Extracting

2. Dry Grinding
   - Fine Powder
   - Packing
   - Raw for Rice Based Crack Food
Chili Sauce with Garlic Processing

1. Dry Chili
2. Sorting
3. Washing & soaking
4. Crude Grinding
5. Fine Grinding
6. Adding Condiment (Sugar, Salt, vinegar, Flavor etc.)
7. Cooking
8. Bottling (90 °C)
9. Cooling
10. Labeling
11. Cartooning

Garlic
1. Sorting & Washing
2. Modified starch

© H. Koh
Jackfruit Processing

1. Jackfruit (Ripen)
2. Fresh Bulb Extraction
   - Fresh Bulb
   - Skin
3. Seed Removing
4. Animal Feed (cattle)
5. J & F
   - Packing
   - Cold Storage
   - Fresh Jackfruit serving
6. Dehydration
   - (a) Low Temperature Drying
   - (b) Vacuum oil frying
   - Cooling
   - Packing
Cold Chain – the imperative need

With downstream production of agricultural and horticultural crops, there is the need and opportunity to develop post-harvest facilities such as processing centre, cold rooms, warehousing etc. These facilities are very limited and in dire need throughout the country. **WHY COLD ROOMS.?**

1) Maintains freshness and ensures and enhances shelf live of products
2) Improves quality of food products – raw & processed both
3) Facilitates reduction of wastages due to perish-ability factors
4) Ensures stable prices and balance in demand & supply of food products
5) Ensures suitability of food products for processing applications
6) Ensures stability to cropping patterns
7) Results in better remuneration to farming sector
Marketing
Current Marketing Chain

- Farm gate – traders – export
- Bargaining power/ purchasing of farmers – poor/ weak
- Farmers share among actors in the rice export supply chain for example is very low-see diagram
- Need to engage farmers in the “Marketing Loop”
- Need to engage farmers in contract farming which is currently attracting the policy makers and private entrepreneurs
Loop Marketing

1. Land Farmers
2. Refinery (Local/Domestic)
3. Consumer Marketing
4. Crushing Plants
5. Technology Transfer
6. Buyer Contract
7. Extension And Supervision
8. Fertilizer
9. Seed
Revenue-Profit Sharing among the Actors of Rice Export Supply Chain

Profit Sharing

- Farmer (18.9%)
- Middlemen (26.7%)
- Miller (4%)
- Exporter (23.9%)
- Export Tax (23.9%)
- Transport & Logistic (2.6%)

Source: MIS, DAP, MOAI (2008)
Energy
Bio-Energy Village

Three Important factors to consider AVAILABILITY, ACCESSIBILITY, & AFFORDABILITY

Energy Requirement

Upstream, downstream and supporting cold room facilities need to be supported by energy (electricity) such as Bio-energy, minihydros (there are 233 irrigation dams, which could be used to produce electricity) and solar energy.
Bio-Energy Village

Energy Supply and Security within the Context of Rural Development in Myanmar

BIO-ENERGY

Best source is Bioenergy

Availability of Biomass, e.g. rice husk, straw, JC, giant grass, Leucaena (Bosakaing), etc

One good approach is to create Bio-villages which can provide an inclusive approach to cater for the energy needs of each village through a central facility. There are technologies and readily available biomass to support such a facility.
Requirements of Bio-Energy Village

• The village must have significant acreages of land under crop or animal production for food and/or biofuels.
• The area must be characterized as having low income and productivity.
• Active participation by farmers/villages is a pre-requisite.
• Technical (including training) and financial support must be effective and sustainable during the pilot period.
• The model must have a “multiplier effect” for subsequent similar development in other villages.
• The proposed project must be cost-effective and capable of promoting self-reliance among the farming community in the pilot village or subsequent villages.
Interrelationship between Poverty Alleviation, Rural Development and Farmers Organisation
Interrelationship between Poverty Alleviation, Rural Development and Farmers Organisation

• From the dimension of rural development—the purpose for the development of agribusiness should be to strongly link rural small-scale farming communities with well developed supply chain in a sustainable manner.
Poverty Alleviation, Rural Development and Farmers Organisations

- The word “Poverty” has now surfaced in national policy and debates on poverty alleviation and rural development.

- In this regard the Myanmar Government has recently strongly advocated a strong policy on “Poverty Alleviation and Rural Development”.

- The attack and alleviation of rural poverty must begin with rural development based on agriculture development as the majority of the population in Myanmar is agrarian and over 70% of the total population is relying/dependent on agriculture and food sectors.
Poverty Alleviation, Rural Development and Farmers Organisations (Contd.,)

- It is also important to recognize that the attack on rural poverty must begin with a dynamic realistic and inclusive approach to agribusiness development program based on increasing agricultural productivity and income.

- This brings us to the need to direct our attention and focus on the “Target Group” which is the farmer.
The support programs for farmers multi-dimensional needs has first to be recognized and a mechanism to drive the support program must equally be recognized. At a general observation the farmers share in the rice production chain is only 28% with the rest enjoyed by traders, middle men, suppliers of inputs etc. This gap has to be narrowed so that, farmers share of the “Rural Productivity Cake” can be increased.
Individual farmers on their own are poorly equipped and vulnerable to the monopolist exploration of traders (Middle men) as they do not possess the collective or countervailing power to secure/bargain a better economic return for their produce at the farm gate. More often than not they are at the mercy of the traders/middle men.

Many organizational systems have been advocated to assist farmers to achieve higher productivity and income. Generally, these organizational approaches are often single purpose co-operatives, commodity based approach marketing centres, farmers markets etc and they do not produce the desired impact to effect rural productivity and income as they are not inclusive in practice and approach.
Farmers need an integrated multipurpose organization with a “bottom up” approach to service their multi-farious needs e.g. credit, extension, marketing, market information, etc. as well as increasing their collective bargaining power in the marketplace.

Any organizational approach to alleviation rural poverty and improving rural income must be area-based multifunctional to benefit the farmers in the area.

Some successful models are Taiwan multipurpose farmers organization also adopted successfully in Malaysia.
Opportunities/ Challenges, Constraints for Agribusiness Development in Myanmar
Opportunities

1) Resource Availability – Land, Labour, Water
2) Agriculture – Upstream, Midstream, and Downstream possibilities
3) Immense Market Potential
4) Country moving rapidly into open market orientation
5) Positive Legal, Institutional changes with better incentive for investors
6) Increasing confidence for foreign assistance and support e.g. Public Private sectors including NGOs and INGOs
Constraints

- R&D and extension, HRD
- Weak supply chain management
- Lack of effective farmers organisation
- Lack of market infrastructures/ information
- Poor export market access
- Lack of financial technological and management capabilities/ support
Thank You

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