Strengthening Agricultural Supply Chains in CLMV

Supporting ASEAN Equitable Economic Development
Research Workshop
“Enhancing Agricultural Productivity in CLMV Countries: Opportunities and Challenges”

Asian Development Bank, Manila, Republic of the Philippines
19 June 2013

Dr Larry C.Y. Wong
Program Director, TIES
Overview:

1. Development of Supply Chains together with Development of Seed Industry and Agriculture Sector Reform/Restructuring constitutes integral components of the Enhancing Agriculture Productivity strategic thrust of the Pilot Phase of the Supporting ASEAN Equitable Economic Development (CLMV) Project.

2. PURPOSE: Draw from work done as well as drafts of country level Discussion Papers and Regional Discussion Paper and Policy Brief on the Development of Supply Chains in CLMV, focusing on rice, and present the work in progress towards a chapter on ‘Strengthening Agriculture Supply Chains’ in the proposed book by ADB.
KEY MESSAGES:

1. **All CLMV countries currently net rice exporters** - except for Myanmar, CLV were rice importers before – turn-around largely policy driven

2. All target to export more rice in future – but on-going policy debate at national level is how much more? – in view of extensive nature, water requirement and low comparative profitability of rice. Crop/enterprise choice or mix – rice-based farming system and underscore importance of supply chains and trading networks

3. Except for Viet Nam (exports around 60 - 70% of total rice production), CLM export < 10% of production (much less that what they consume domestically). Cautionary note: disproportionate emphasis on rice exports – domestic spatial and temporal arbitrage equally important especially for food security and inclusive growth

4. Dynamics of Global and regional rice markets – shifting and two-tiered – policy changes in India, China and Thailand – China hike in imports result from raising price subsidy over last few years (likely major importer in future) – coupled with ASEAN and GMS connectivity increasing importance of Border Trade. Also EU and Russia (CIS countries) – new markets with preferential treatment
KEY MESSAGES (Cont’d):

5. Productivity and competitiveness - along entire supply chain – beyond efficiency and cost of production, but also cost of milling/processing, transportation, export processing, also – financing, electricity. A comparison across CLMV rice supply chains would be instructive as well as pin-point areas of collaboration/cooperation in the run up to 2015 and 2030.

6. With the exception of Vinafood I and II in Viet Nam, CLM have rolled back the involvement of SOEs, - Myanma Agriculture Produce Trading (Myanmar) and State Enterprise for Food and Crop Promotion (Lao PDR) – now playing minor role – future of SOEs and G to G trade? G to G facilitated but B to B executed.

7. Significant FDI in mills and processing [Viet Nam > Cambodia > Lao PDR > Myanmar (MITSUI with MAPCO, more to come) – pivotal role for transforming upstream and downstream segments – development of comprehensive supply chains and sub-chains – investments in input supply, modern distributive trade, especially supermarkets – various forms of contract farming (trust vs legally binding contracts) and modalities of provision of agi-support services and foundation for enhancing productivity.

8. Need to get basics, balance and leveraging right in order to support ASEAN Equitable Economic Development - role of Government and role of private sector.
‘Realizing a New Vision for Agriculture’ at National, CLMV and ASEAN Levels – (Enhancing Agriculture Productivity, etc)

A global agriculture system that harnesses the power of markets and multi-stakeholder collaboration to feed the world, protect our planet and create prosperity

FOOD SECURITY
Meet nutritional demands while providing affordable choices across the food value chain

ENVIRONMENTAL SUSTAINABILITY
Conserve or enhance the quality and quantity of natural resources; meet the challenges of changing climate

ECONOMIC OPPORTUNITY
Drive rural and national economic development around the globe with well-targeted investments

Source: WEF, 2010
ADB’s Vision and Emphasis

**Productivity** - Increase production and productivity of food commodities in a sustainable way

**Connectivity** - Improve linkages between food producers and consumers; input and output markets

**Resilience** - Enhance the resilience of social and ecological systems against the effects of climate change

Source: ADB-RSDD
Economic Activities along Supply Chain

**INPUTS**
- Seeds
- Agro-chemicals
- Farm Equipment
- Farm Machinery
- Other inputs

**PRODUCTION**
- Farmer / Producer
  - Small farmer / producer
  - Group farming / Contract farming
  - Estates / large scale production

**PROCESSING / VALUE-ADDING**
- Processor Value-Adding*
  - Main product
  - Co-products
  - By-products
  - Wastes

**DISTRIBUTIVE TRADE**
- Wholesaler
  - Distribution & storage

**INTERNATIONAL TRADE**
- IMPORTS
  - Raw materials / intermediate goods
  - Bulk / Pre-packed
- EXPORTS
  - Stocks / Pre-packed

**DOMESTIC OVERSEAS**
- COLLECTION
  - Distribution & storage
- RAW MATERIALS / INTERMEDIATE GOODS
  - Bulk / Components
- Bulk / Components
- STOCKPILE

**CLUSTER DEVELOPMENT AT EACH LEVEL OF SUPPLY CHAIN**

- Tier I - III
- Tier I - III
- Tier I - III
- Tier I - III
CLUSTER DEVELOPMENT

TIER I

INPUT / PRODUCTION / OUTPUT

CURRENT OPPORTUNITIES
- End uses
FUTURE OPPORTUNITIES
- End uses enabled by science & technology innovations

TIER II

INTERMEDIATE SUPPLIER & SUPPORT SERVICE

CURRENT OPPORTUNITIES
- Inputs
- Machinery & Equipment
- Metal industry
- Glass Industry
- Industrial Chemicals
- Paper industry
- Printing
- Logistics
- Business Services
FUTURE OPPORTUNITIES

TIER III

FOUNDATION PROVIDERS

CURRENT OPPORTUNITIES / REQUIREMENTS
- Infrastructure
- Financing
- Human Resource Development
- Technology
- Regulatory Environment
FUTURE OPPORTUNITIES / REQUIREMENTS
FOOD SUPPLY SYSTEM - UK

<table>
<thead>
<tr>
<th>Relationship Power</th>
<th>Inputs/Agriculture</th>
<th>Primary Processing</th>
<th>Secondary Processing and Distribution</th>
<th>Retail</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small/medium-sized organizations</td>
<td>Private organizations</td>
<td>Own label</td>
<td>Four dominant organizations</td>
<td>Marketing-led product development</td>
</tr>
<tr>
<td>Energy</td>
<td>Fertilizer production</td>
<td>Refrigeration</td>
<td>Transport and cooking</td>
<td>Refrigeration</td>
<td>Transport and cooking</td>
</tr>
<tr>
<td>Resource Usage</td>
<td>Land</td>
<td>Labour</td>
<td>Water</td>
<td>Transport infrastructure</td>
<td>Urban Land</td>
</tr>
<tr>
<td>Direct Emitted Carbon</td>
<td>Nitrogen and livestock methane</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Wasted or Lost</td>
<td>5%</td>
<td>5%</td>
<td>2%</td>
<td>10%</td>
<td>33%</td>
</tr>
</tbody>
</table>

- This is an indicative interpretation of the UK supply network. Waste figures based on work undertaken by the Food Process innovation Unit at Cardiff University on behalf of the Food Chain Centre. WRAP estimates have been used for consumer waste figures. Available online at:
National Level:

- Focus on rice supply chain’s underlying importance for overall growth and sustainable development. **Focus on three major aspects of supply chains** (a) structure, (b) dynamics and (c) future prospects of rice supply chain development and related policy issues

1. Overview
   - cropped acreage, yields, production and level of self-sufficiency
   - summary of Rice Policy changes and key milestones which impacts on structure and development of rice supply chain
   - surplus and deficit areas - spatial considerations
   - extent of double cropping – temporal considerations
   - compare domestic prices with international rice prices of similar grades
National Level : (cont’d)

2. Structure
• A general mapping of supply chain – inputs to consumers/export
• Differentiated supply chains - domestic flows from surplus to deficit regions; export through ports; exports through border; others
• Facilities along the supply chains - mills - small, medium to large mills. with dryers, wet polishers, colour sorter and packing machine – Rice Specialization Companies – provision of mechanization services tractors, threshers, combine harvesters as well as good quality/certified seeds
• Cost and returns
• Financing, transportation, vulnerable groups (landless farmers)
• Identify weak links (at interfaces) along rice supply chain - Strength of chain is in the weakest links

3. Dynamics
• Transformation of supply chains - growing importance of mills as a fulcrum or pivot & P-P-P arrangements, FDI
• Which of the differentiated supply chains (domestic surplus to deficit areas, exports through ports; via Border Trade; others – growing fastest and why?
National Level : (cont’d)

3. Dynamics (cont’d)
   • Temporal (single or double cropping areas - rice-based farming system, crop rotation) and spatial (which areas more likely to have productivity increases - irrigated areas with multipurpose dams generating electricity to run mills and processing centres). Advantage of market access – cost effectiveness

4. Future prospects
   • Policy issues – strengthening identified weak links in rice supply chain; proper development of seed industry and coordinated reform and transformation of rice industry
   • Coordinated initiatives/emphasis on green food (low chemicals, traceable, certified safe, food scare, heavy metals) rice
   • More organized border trade – especially to China
   • Replicability of innovative approaches
(4) Major Rivers (of which 3 originate within own border) and many rivers and creeks flow into or join the major rivers

- Sagaing Region
- Rakhine State
- East & West Bago Region
- Ayeyarwaddy Delta Region (40% total production)

**Four Major Rice Granaries in Myanmar**

- **Cultivated area:** 8 million ha
- **Total Production:** 23.6 million MT (paddy)

Myanmar - potential to be water-energy-food secure, in short term, if not already so
Production and harvest areas

Table. Rice production in Lao PDR (2010/11)

<table>
<thead>
<tr>
<th>Particular</th>
<th>Harvest area (ha)</th>
<th>Production (Million tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet season</td>
<td>604.235</td>
<td>2.214.391</td>
</tr>
<tr>
<td>Dry season</td>
<td>101.611</td>
<td>477.110</td>
</tr>
<tr>
<td>Upland</td>
<td>69.117</td>
<td>141.597</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>774.963</strong></td>
<td><strong>2.822.098</strong></td>
</tr>
</tbody>
</table>

*Source: Agriculture Census, MAF, May 2012.*
Food Production in Agricultural Markets

Rice Production

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultivated Areas (Ha)</td>
<td>2,585,905</td>
<td>2,615,741</td>
<td>2,719,080</td>
<td>2,795,892</td>
<td>2,968,529</td>
</tr>
<tr>
<td>Harvested Areas (Ha)</td>
<td>2,566,952</td>
<td>2,613,363</td>
<td>2,674,603</td>
<td>2,777,323</td>
<td>2,766,617</td>
</tr>
<tr>
<td>Yield (T/Ha)</td>
<td>2.621</td>
<td>2.746</td>
<td>2.836</td>
<td>2.970</td>
<td>3.173</td>
</tr>
<tr>
<td>Production (MT)</td>
<td>6,727,127</td>
<td>7,175,473</td>
<td>7,585,870</td>
<td>8,249,452</td>
<td>8,779,365</td>
</tr>
<tr>
<td>Rice Surplus (MT)</td>
<td>1,649,640</td>
<td>2,025,033</td>
<td>2,244,598</td>
<td>2,516,752</td>
<td>2,780,328</td>
</tr>
<tr>
<td>Paddy Surplus (MT)</td>
<td>2,577,562</td>
<td>3,164,114</td>
<td>3,507,185</td>
<td>3,932,425</td>
<td>4,344,263</td>
</tr>
</tbody>
</table>
Viet Nam Rice Production

Rice land: 3.9 mil. ha
Cultivated area: 7.4 mil. ha
Yield: 5.32 ton/ha
Production: 40 mil. tons (paddy)
Export: 7 mill tons (rice)

Red River Delta
Rice land: 0.6 mil. ha
17% of total production

Mekong River Delta
Rice land: 1.87 mil. ha
55% total of production
95% of total export
GMS Connectivity

Road Transport Network

2015 (Committed)

Source: West Indochina
Trade Flows Of Rice And Paddy In Cambodia – Conventional and Border Trade

**Official Exports**

- **Imports Thai Jasmine Rice**
- **Imports WFP Rice**
- **Unofficial Exports Paddy**

**Imports of Thai Rice**

**Imports of World Food Program Rice**

**Unofficial Exports Paddy**

**Trade in Cambodia**

- Large Flow of Rice
- Medium Flow of Rice
- Small Flow of Rice
- Large Flow of Paddy
- Medium Flow of Paddy
- Imports of Thai Rice
- Imports of WFP Rice

**Map Details**

- **Border Gates**
  - Mok Va Border Gate
  - Chrey Thom Border Gate
  - Knom Samnar Border Gate
  - Phnom Den Border Gate

- **Provinces**
  - Kampong Cham
  - Kampong Chhnang
  - Sihanouk
  - Preah Sihanouk
  - Kampot
  - Kampot
  - Bat Dambang
  - Pousat
  - Preah Vihear
  - Siem Reab
  - Kampong Thom
  - Kandal
  - Phnom Penh
  - Kracheh
  - Mondol Kiri
  - Rotanak Kiri
  - Lao PDR

- **Rivers**
  - Mekong
  - Tonle Sap

- **Other Details**
  - 0 - 100 - 200 kilometres
  - Map credit: [Source]
Trade flow of rice in Lao PDR

Unofficial export

Unofficial export to Europe market

official import 55.256 ton

Rice traders from Lak20

Buyers in Vietnam

Local rice trader

Rice traders from Lak20

Chinese Rice traders (Intermediaries)

Buyers in China

Europe market (French, Switzerland, Belgium and Germany) - EBA

EBA

Vietnam

CAMBODIA

Phnom Penh

Bangkok

Thailand

MYANMAR

Rangoon

Hanoi

Lao Farmer Product

Paddy collector

Farmer

Rice miller

Agro-input suppliers
EXAMPLE:
TRADE FLOWS
OF RICE IN
MYANMAR –
2010/11
Figure 9. RICE SUPPLY CHAIN IN MYANMAR

Service Providers: Transporters (highway and waterway), market information, Bank, packaging material, SGS

**Input**
- Input suppliers
- Chemical fertilizers and pesticide
- Farm machineries
  - Land preparation
  - Threshing
  - Harvesting
  - Water pumping engine
- Certified seed (only Gov.)
- Agriculture seasonal loan for paddy production

**Paddy production**
- Farmers
  - No. of farm family 2146000
  - Paddy land 13.28 m acre
- Paddy collectors
- Rice leading companies
- Rice bran
  - (whiterice)
- Milled rice
  - Broken rice
- Parboiled rice

**Rice processing and marketing**
- RICE MILLS
  - Huller rice mills-23088
  - Private rice mills-52
  - Modern rice mill-22
  - Parboiled rice mills: 6
  - Total rice mills 1005 (2003/04)
- Rice bran
- Milled rice
- Broken rice
- Parboiled rice
  - Rice snack/Liquor
- Exporters’ warehouse
- Prepared for export
- Local rice exporter
- Exports

**International trade**
- F.o.b. YGN
  - Shweli (Ruili) in China
  - Muse (China)

**Support Institution**
- DOA, MADB, MOAI, MOC, MRA, UMFCCI

**Institutional Environment**
- Trade policy, export regulation, Tax policy, Investment policy (FDI), Company act, seed law, Fertilizer law, Pesticide law

**Infrastructure**
- Roads, Bridge, port transport

**CONSUMERS**
Rice supply chain in the Mekong River Delta

Source: Vo Thi Thanh Loc, 2010
Myanmar Rice Value Chain: Strength is determined by weakest links

**Weak Link 1**
- Purity and quality of seeds
- Quality & appropriateness of fertilizers, pesticides
- R&D and extension
- Rural financing

**Weak Link 2**
- Cultural practice leads to 'sun-cracking' – high brokens
- Lack of proper drying & storage facilities at mills, especially for summer crop
- Lack of development of other end-uses of rice and rice by-products
- Financing issue - most mills operating under capacity – coping mechanism
- Low productivity growth

**Weak Link 3**
- Exports – consistency of quality and supply not assured - supply-driven, reactive
- Buffer stocking/Stockpiling – rationale, strategic approach, social obligation
- Parallel market – illegal border trade – price gap/differential – rice to China, paddy to Thailand

**Weak Link 4**
- Little or no sharing of data/information along supply chain - collected and disseminated by different interest groups
- Data quality & consistency problem - from production to per capita consumption
- High transportation/logistics cost
- Financing issue
- Not fully utilizing agriculture as 'engine of growth'

**Weak Link 4**

**Weak Link 2**

**Weak Link 3**

**Weak Link 1**
ASIDE: Shifting World Trade: Trade Volume Has Soared

<table>
<thead>
<tr>
<th>Decades</th>
<th>Mil. Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970s</td>
<td>8.8</td>
</tr>
<tr>
<td>1980s</td>
<td>11.9</td>
</tr>
<tr>
<td>1990s</td>
<td>18.2</td>
</tr>
<tr>
<td>2000s</td>
<td>27.9</td>
</tr>
<tr>
<td>2010</td>
<td>31.6</td>
</tr>
<tr>
<td>2011</td>
<td>36.2</td>
</tr>
<tr>
<td>2012</td>
<td>39.2</td>
</tr>
<tr>
<td>2013 1/</td>
<td>38.6</td>
</tr>
<tr>
<td>1/ Forecast</td>
<td>USDA</td>
</tr>
</tbody>
</table>

Drivers:
- Petro-dollar wealth
- Rural – urban migration
- Changing diets with premium on ease of cooking
- Increased exportable surpluses

USDA
Trade structure (quality segments) has changed

### World Trade: Est. Changes in Quality since Mid 1990s

(millions of tons, milled equiv.)

<table>
<thead>
<tr>
<th>Quality</th>
<th>mid 90s</th>
<th>2005–07</th>
<th>2010–12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basmati</td>
<td>.89</td>
<td>2.00</td>
<td>3.64</td>
</tr>
<tr>
<td>Jasmine</td>
<td>1.20</td>
<td>1.90</td>
<td>2.52</td>
</tr>
<tr>
<td>Jasmine Bkns</td>
<td>NA</td>
<td>.69</td>
<td>0.73</td>
</tr>
<tr>
<td>Glutinous</td>
<td>.28</td>
<td>.34</td>
<td>.46</td>
</tr>
<tr>
<td>Japonica</td>
<td>1.50</td>
<td>2.58</td>
<td>2.42</td>
</tr>
<tr>
<td>Rough</td>
<td>.50</td>
<td>2.45</td>
<td>2.36</td>
</tr>
<tr>
<td>Brown</td>
<td>.60</td>
<td>0.70</td>
<td>.64</td>
</tr>
<tr>
<td>Parboiled</td>
<td>2.15</td>
<td>6.93</td>
<td>6.07</td>
</tr>
<tr>
<td>High</td>
<td>3.20</td>
<td>5.10</td>
<td>8.14</td>
</tr>
<tr>
<td>Medium</td>
<td>2.50</td>
<td>3.07</td>
<td>2.97</td>
</tr>
<tr>
<td>Low</td>
<td>3.86</td>
<td>5.27</td>
<td>4.63</td>
</tr>
<tr>
<td>Brokens</td>
<td>.83</td>
<td>1.82</td>
<td>2.01</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17.50</strong></td>
<td><strong>32.85</strong></td>
<td><strong>36.60</strong></td>
</tr>
</tbody>
</table>

Source: Personal Communication Tom Slayton
## Key Exporters changing – Two Tier

### Exports by Key Markets (million tons)

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>CHG</th>
</tr>
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<tbody>
<tr>
<td><strong>Upper Tier</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mercosur</td>
<td>3.08</td>
<td>3.03</td>
<td>2.60</td>
<td>-0.43</td>
</tr>
<tr>
<td>Thailand</td>
<td>10.65</td>
<td>6.95</td>
<td>8.00</td>
<td>1.06</td>
</tr>
<tr>
<td>U.S.</td>
<td>3.25</td>
<td>3.33</td>
<td>3.40</td>
<td>0.07</td>
</tr>
<tr>
<td>Subtotal</td>
<td>16.97</td>
<td>13.30</td>
<td>14.00</td>
<td>0.70</td>
</tr>
<tr>
<td><strong>&quot;The Market&quot;</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cambodia</td>
<td>0.86</td>
<td>0.80</td>
<td>0.75</td>
<td>-0.05</td>
</tr>
<tr>
<td>India</td>
<td>4.64</td>
<td>10.25</td>
<td>9.00</td>
<td>-1.25</td>
</tr>
<tr>
<td>Pakistan</td>
<td>3.41</td>
<td>3.40</td>
<td>3.20</td>
<td>-0.20</td>
</tr>
<tr>
<td>Myanmar</td>
<td>0.78</td>
<td>0.69</td>
<td>0.75</td>
<td>0.06</td>
</tr>
<tr>
<td>Vietnam</td>
<td>7.00</td>
<td>7.72</td>
<td>7.40</td>
<td>-0.32</td>
</tr>
<tr>
<td>Others</td>
<td>6.00</td>
<td>2.99</td>
<td>3.50</td>
<td>0.51</td>
</tr>
<tr>
<td>Subtotal</td>
<td>22.69</td>
<td>25.85</td>
<td>24.60</td>
<td>-1.25</td>
</tr>
<tr>
<td>TOTAL</td>
<td>36.25</td>
<td>39.15</td>
<td>38.60</td>
<td>-0.99</td>
</tr>
</tbody>
</table>

Source: Personal Communication Tom Slayton
## Key Importers Changing - Opportunities

### Imports by Key Markets (million tons)

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>CHG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>1.49</td>
<td>.05</td>
<td>.30</td>
<td>.25</td>
</tr>
<tr>
<td>China</td>
<td>2.90</td>
<td>3.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>3.10</td>
<td>1.96</td>
<td>1.50</td>
<td>-.46</td>
</tr>
<tr>
<td>Iran</td>
<td>1.87</td>
<td>1.70</td>
<td>1.50</td>
<td>-.20</td>
</tr>
<tr>
<td>Iraq</td>
<td>1.04</td>
<td>1.48</td>
<td>1.40</td>
<td>-.08</td>
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<tr>
<td>Ivory Coast</td>
<td>.94</td>
<td>1.45</td>
<td>1.15</td>
<td>-.30</td>
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<tr>
<td>Nigeria</td>
<td>2.55</td>
<td>3.40</td>
<td>2.90</td>
<td>-.50</td>
</tr>
<tr>
<td>Philippines</td>
<td>1.20</td>
<td>1.50</td>
<td>1.50</td>
<td>0</td>
</tr>
<tr>
<td>Senegal</td>
<td>.81</td>
<td>1.20</td>
<td>1.00</td>
<td>-.20</td>
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<tr>
<td>Others</td>
<td>22.69</td>
<td>23.51</td>
<td>25.75</td>
<td>2.24</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>36.25</td>
<td>39.15</td>
<td>38.60</td>
<td>1.54</td>
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</tbody>
</table>

*Increasing Paddy support prices: 2012 $381/MT; 2013 – 420/MT (~620/MT rice wholesale) – TRQ – 5.32 MMT (duty 1% cf outside TRQ 65%)*

*EU – 1.5MMT/annum; EBA – duty waiver – ET175 or USD228/MT*

Source: Personal Communication Tom Slayton
Other Considerations:

- Pilot phase’s focus on agriculture productivity in CLMV - productivity increases from technological change, price supply response not only at production level BUT along the entire supply chain while emphasizing ecosystem services and sustainability.

- Empirically innovative development and management of comprehensive supply chains in CLMV. Beyond traditional forms of PPP, we note a high incidence of FDI, foreign aid and NGOs/civil society activity – ensure such efforts are inclusive can be sustained & replicated.

- Country level studies focused on rice supply chain (including seeds) and mention other crops in passing.

- Increasing importance of border trade and cross-border investments, FDI.
Evidence So Far:

• Underscores importance of supply chain to increasing agricultural productivity and natural resource management - initiatives required at different levels of supply chain (identified weaknesses at the interfaces need to be addressed more holistically - prioritising and sequencing) - too production-centric and piecemeal in past

• Importance of Public-Private-Partnership (in various forms) in developing comprehensive supply chains and trading networks - 'from seed to shelf' - link to local as well as foreign more lucrative markets

• Key pivot /fulcrum in 'balancing' and driving productivity - the mills/processing plants - contract farmers, provision of high quality/certified seeds, provision of mechanization services, produce other end uses (rice bran oil, rice wine, rice-based drinks, vermicelli, rice flour, animal feed, etc), perform stock-piling function for Government, including provision of rice to military; packed and branded rice into supermarket chains.
Evidence So Far: (Cont’d)

• All already or intend to export rice - besides from ports, increasing importance of border trade and related cross border investments - springboard to other countries

• Each has inherent advantage – Myanmar’s strategic geo-political and geo-commercial location; Cambodia and Lao PDR’s special market access to Europe (EU – Everything But Arms – duty exemption ~ USD200/MT); - potential for organic and/or green (product) branded rice into supermarket chains.
Enhancing Productivity, Catching Up by Strengthening Agriculture Supply Chains: Key Issues and Recommendations

At national level:

• Balanced, inclusive and sustainable growth – attention to marginalization of ‘smaller’, less connected stakeholders, especially farmers
• Export more rice? – crop/enterprise mix – Paddy ++ with increasing rural development orientation
• Understand, track shifts in Global and regional rice markets

At CLMV level:

• Leverage on ASEAN and Greater Mekong Subregion increasing connectivity – intermodal logistics -> transit corridors (Lao PDR, Cambodia): regional food supply chain and trading networks – exploit synergisms and leverage on relative strengths- cross border investments (FDI/JV) – joint exploitation of emerging markets – China, EU, Russia
Enhancing Productivity, Catching Up by Strengthening Agriculture Supply Chains: Key Issues and Recommendations (cont’d)

• Increasing P-P-P BUT Government role at National and CLMV levels crucial - Investments in infrastructure (reduce transportation, electricity and cost of doing business), provision of smart and well-targeted subsidies; investments in science & technology, R&D and innovation along supply chain (seed and other input industry development), agri-support services and foundations

• All CLMV undergoing economic, social (and political) transformation – execution need to be managed and coordinated - policy, legal and institutional framework, finance and HRD – liberalization with improved governance – rolling back of SOEs – Provision of Public goods (blurring of Public Vs Private goods)

• Implementation Coordination/Management Unit – change management
Enhancing Productivity, Catching Up by Strengthening Agriculture Supply Chains: Key Issues and Recommendations (cont’d)

Other Considerations:

- Seek out and realize potential in managing increasingly comprehensive supply chains – convergence of Biotechnology and ICT (with increasing digital penetration) – enables leap-frogging – for production, market information, training.

- Work on exploiting connectivity and convergence of agricultural supply chains – rice with other essential goods (edible oil, sugar, pulses and beans, etc) as well as other enterprises in rice-based farming systems (Rice ++)

- Aware special requirement of new markets (EU – EBA but need certification GMO free)

- Cross-pollination of ideas and innovations in different CLMV countries (and further afield) – Use of gasifiers in Cambodia, intermodal logistics, mid-stream loading (Thai experience) using barges to overcome draft and port constraints.
KEY MESSAGES:

1. All CLMV countries currently net rice exporters - except for Myanmar, CLV were rice importers before – turn-around largely policy driven

2. All target to export more rice in future – but on-going policy debate at national level is how much more? – in view of extensive nature, water requirement and low comparative profitability of rice. Crop/enterprise choice or mix – rice-based farming system and underscore importance of supply chains and trading networks

3. Except for Viet Nam (exports around 60 - 70% of total rice production), CLM export < 10% of production (much less that what they consume domestically). Cautionary note: disproportionate emphasis on rice exports – domestic spatial and temporal arbitrage equally important especially for food security and inclusive growth

4. Dynamics of Global and regional rice markets – shifting and two-tiered – policy changes in India, China and Thailand – China hike in imports result from raising price subsidy over last few years (likely major importer in future) – coupled with ASEAN and GMS connectivity increasing importance of Border Trade. Also EU and Russia (CIS countries) – new markets with preferential treatment
KEY MESSAGES (Cont’d):

5. Productivity and competitiveness - along entire supply chain – beyond efficiency and cost of production, but also cost of milling/processing, transportation, export processing, also – financing, electricity. A comparison across CLMV rice supply chains would be instructive as well as pin-point areas of collaboration/cooperation in the run up to 2015 and 2030

6. With the exception of Vinafood I and II in Viet Nam, CLM have rolled back the involvement of SOEs, - Myanma Agriculture Produce Trading (Myanmar) and State Enterprise for Food and Crop Promotion (Lao PDR) – now playing minor role – future of SOEs and G to G trade? G to G facilitated but B to B executed

7. Significant FDI in mills and processing [Viet Nam > Cambodia > Lao PDR > Myanmar (MITSUI with MAPCO, more to come) – pivotal role for transforming upstream and downstream segments – development of comprehensive supply chains and sub-chains – investments in input supply, modern distributive trade, especially supermarkets – various forms of contract farming (trust vs legally binding contracts) and modalities of provision of agi-support services and foundation for enhancing productivity.

8. Need to get basics, balance and leveraging right in order to support ASEAN Equitable Economic Development - role of Government and role of private sector
THANK YOU!

www.isis.org.my
larry@isis.org.my