Strenthening Supply Chains and Agricultural Productivity in CLMV

Lao PDR Policy Forum
'Enhancing Agriculture Sector Productivity in Lao PDR'

Vientiane, Lao PDR
9 December, 2013

Dr Larry C.Y. Wong
Senior Fellow

INTRODUCTION :

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

PURPOSE: Draw from work done as well as country level Discussion Papers and Regional Discussion Paper and Policy Brief on the Development of Supply Chains in CLMV, focusing on rice, with a Lao PDR slant to stimulate discussion at this Policy Forum

Underlying theme: Despite many challenges and on-going reforms, CLMV are slowly but surely getting the basics and balance right in terms of supply chain management towards more productivity increases along rice supply chain and ultimately efficient, inclusive and sustainable growth– however, need to keep transforming to catch up (some areas leapfrog) and realize full potential, individually and as a group – so much to be achieved.

KEY MESSAGES:

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

2. At beginning of study in 2012, all CLMV targeted to export more rice in future – but more recently, on-going policy debate at national level is how much rice to produce and export? – in view of extensive nature, water requirement and low comparative profitability of rice. So recognize increasing importance of Supply Chain development (vertical diversification) and crop/enterprise choice or mix (horizontal diversification) – rice-based farming system

3. Except for Viet Nam (exports around 30-40% of total rice production), CLM export < 10% of production (much less that what they consume domestically). Cautionary note: disproportionate emphasis on rice exports supply chain – domestic spatial and temporal arbitrage supply chain equally important especially for food security, employment generation, poverty reduction, and inclusive growth

KEY MESSAGES: (Cont'd)

4. Dynamics of Global and regional rice markets – shifting trade and market segments – 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 and cross-border investments. Also new markets with preferential treatment - EU and Russia (CIS countries)

5. Productivity enhancement - along entire supply chain – beyond efficiency and cost of production, but also cost of milling/processing (electricity, capacity utilization), transportation, export processing, financing. A recent comparison across countries – CLM lagging especially much room for improvement

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 or restructured – future of SOEs and G to G trade? G to G facilitated but B to B executed

KEY MESSAGES: (Cont'd)

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 and modalities of provision of agri-support services and foundation for enhancing productivity – financing, technology and business organization and market access.

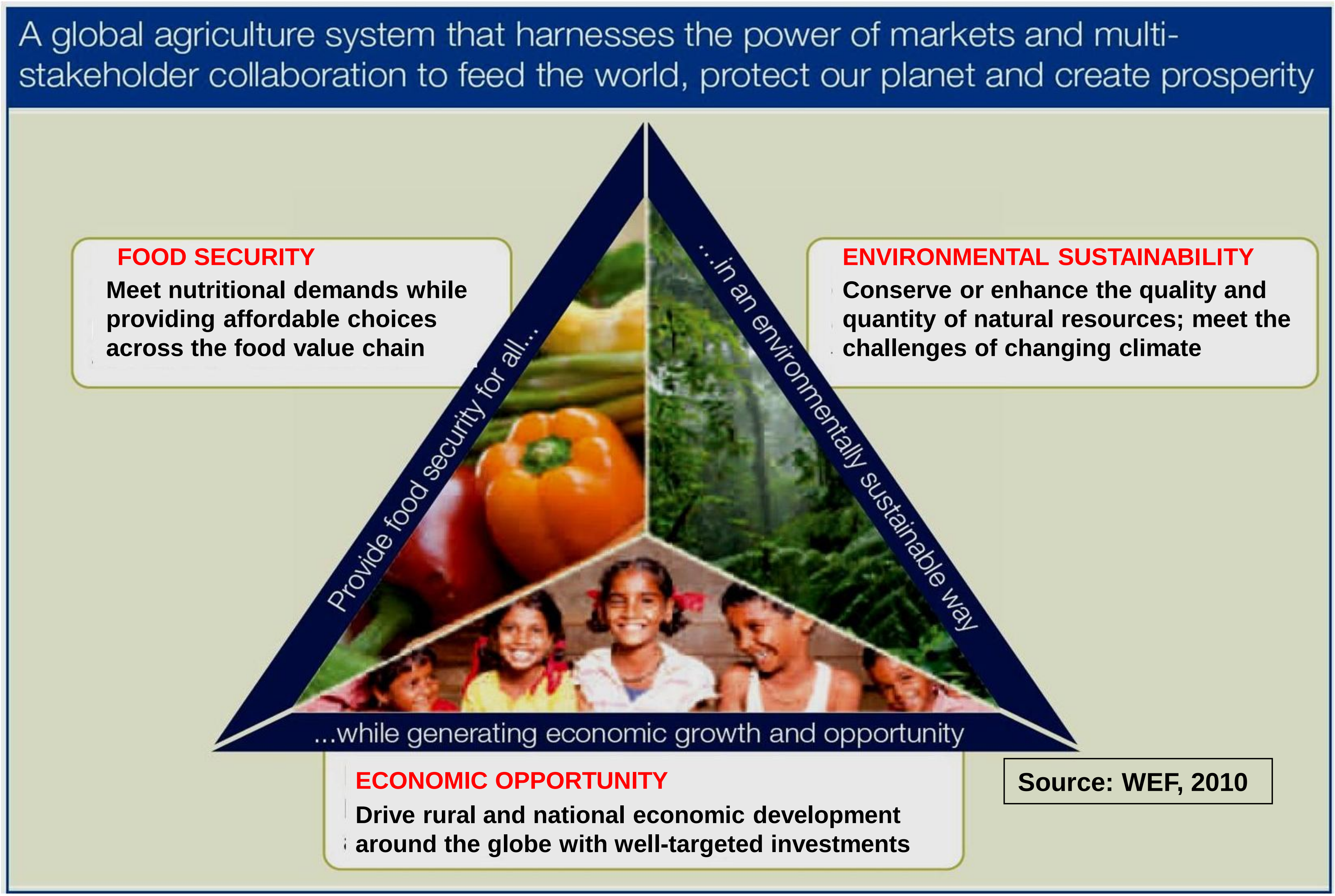
8. Need to get basics, balance and leveraging right in order to support ASEAN Equitable Economic Development - role of Government still important in the wake of increasing importance of private sector and P-P-P

KEY MESSAGES: (Cont'd)

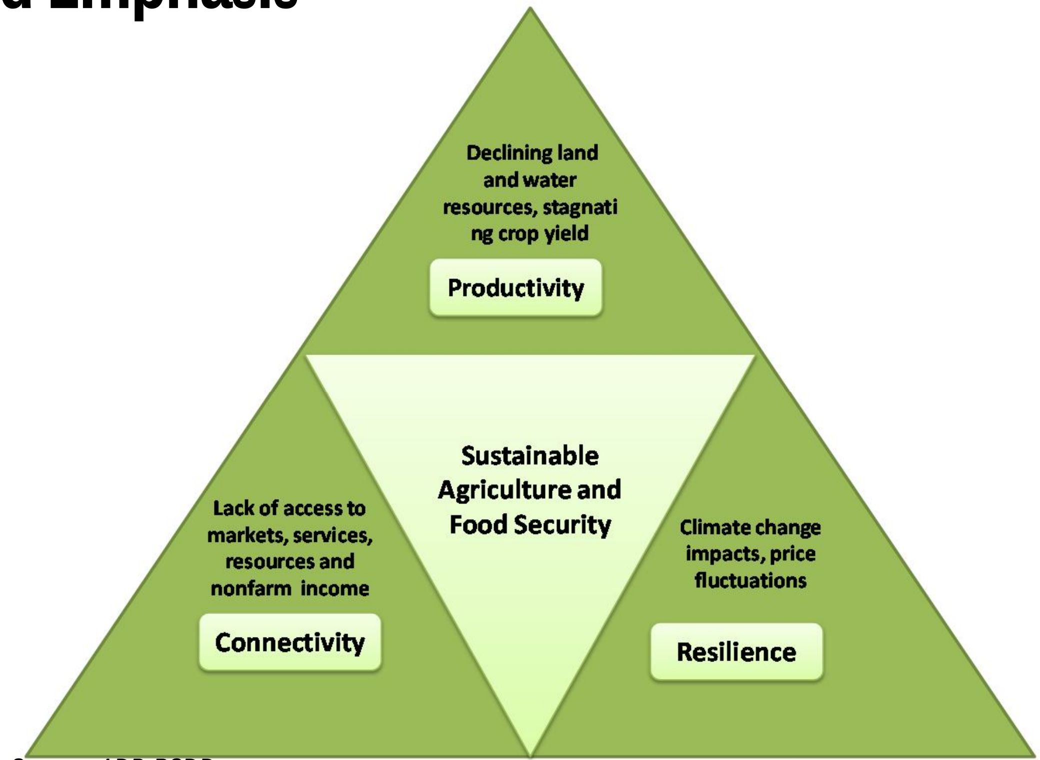
9. Future prospects/Recommendations

- Policy issues – sequential strengthening identified weak links in rice supply chains;
- Coordinated initiatives/emphasis on green food (low chemicals, traceable, food safety - food scare, absence of heavy metals);
- Development of more high-value end-uses – transmission of better prices to farmers/producers;
- Proactive in attracting FDI (technology transfer, export platform);
- More organized border trade – leveraging on increasing GMS and ASEAN connectivity – for Viet Nam, with Cambodia and Lao PDR as well as
- New Markets with preferential treatment – EU - EBA and possibility China and Russia) – more proactive
- Scalability and Replicability of innovative approaches – adaptation, sharing and shoring
- Explore possibility of development of 'regional rice cluster' covering not only CLMV but also ASEAN + 3

‘Realizing a New Vision for Agriculture’ at National, CLMV and ASEAN Levels – (Enhancing Agriculture Productivity, etc)



ADB's Vision and Emphasis



Source: ADB-RSDD

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

Foundations for New Vision of Agriculture:

From…	… to
• Broadly implement individual initiatives across entire country (e.g., fertilizer subsidies, extension, seed systems)	• Holistic mini-transformations with enough change energy in a geographic region or value chain – then scale/replicate from there
• Individual agendas for country, donors and private sector	• Coordinated, multi-stakeholder planning process and execution management
• Government - driven	• Market-driven, with government as enabler
• Design programmes around technical and political considerations	• Design for scalability - Scalable projects and change agents (e.g., nucleus farmers, warehouse aggregators) - Focus on replicability - Transaction-focused approach
• Everything is priority	• Explicitly sequence one's activity choices, and explicitly choose *not* to do certain things

Source: WEF, 2010

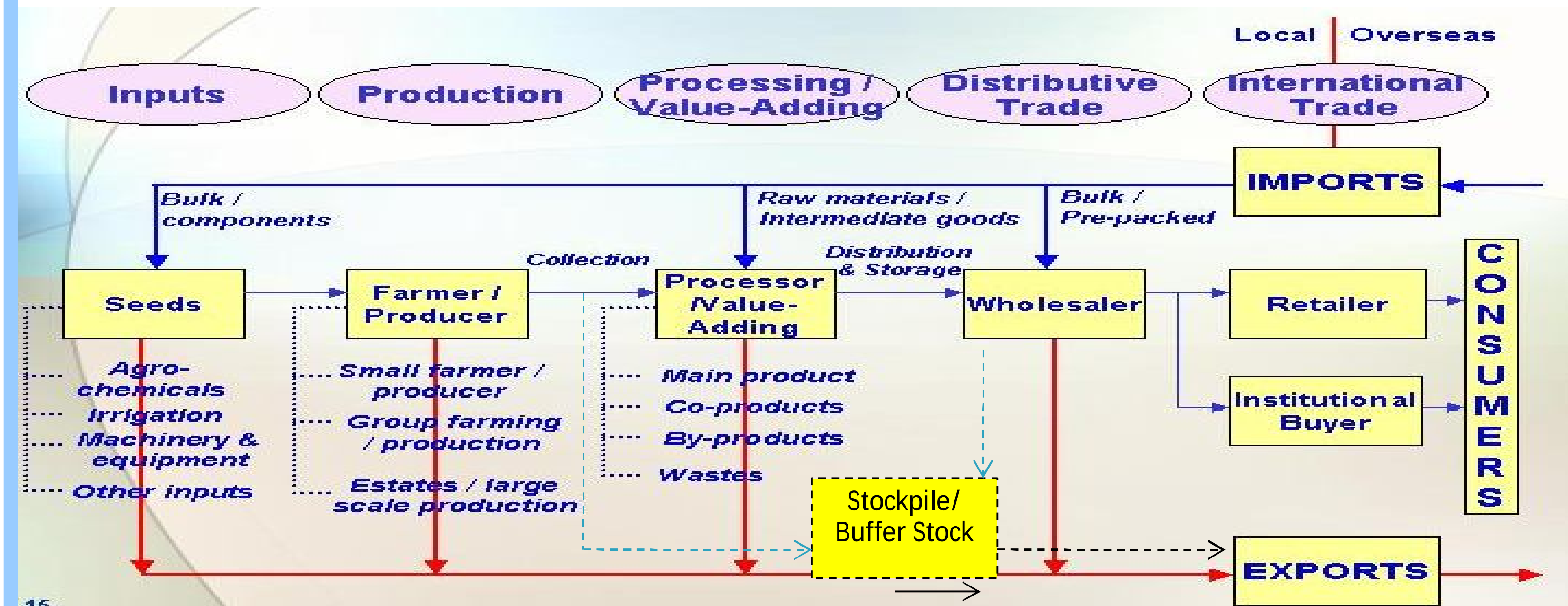
WHY SUPPLY CHAIN MANAGEMENT

- **Future competition will no longer be between firms but between supply chains.**
- **All components along supply chain need not belong to one company or group. Varying degrees of strategic alliances can be developed – from loose structures (JV 'at the door') to dedicated/designated suppliers and cross investments – role of government.**
- **There is value-adding along supply chain.**
- **Supply chain can reduce asymmetry of information at interface with each subsequent level, thereby reducing transaction costs as well as increasing feedback and improving response rate to changes in consumer preferences and tastes – so as to capture premiums. This sharing of info greatly facilitated/revolutionised by ICT.**

WHY SUPPLY CHAIN MANAGEMENT (Cont'd)

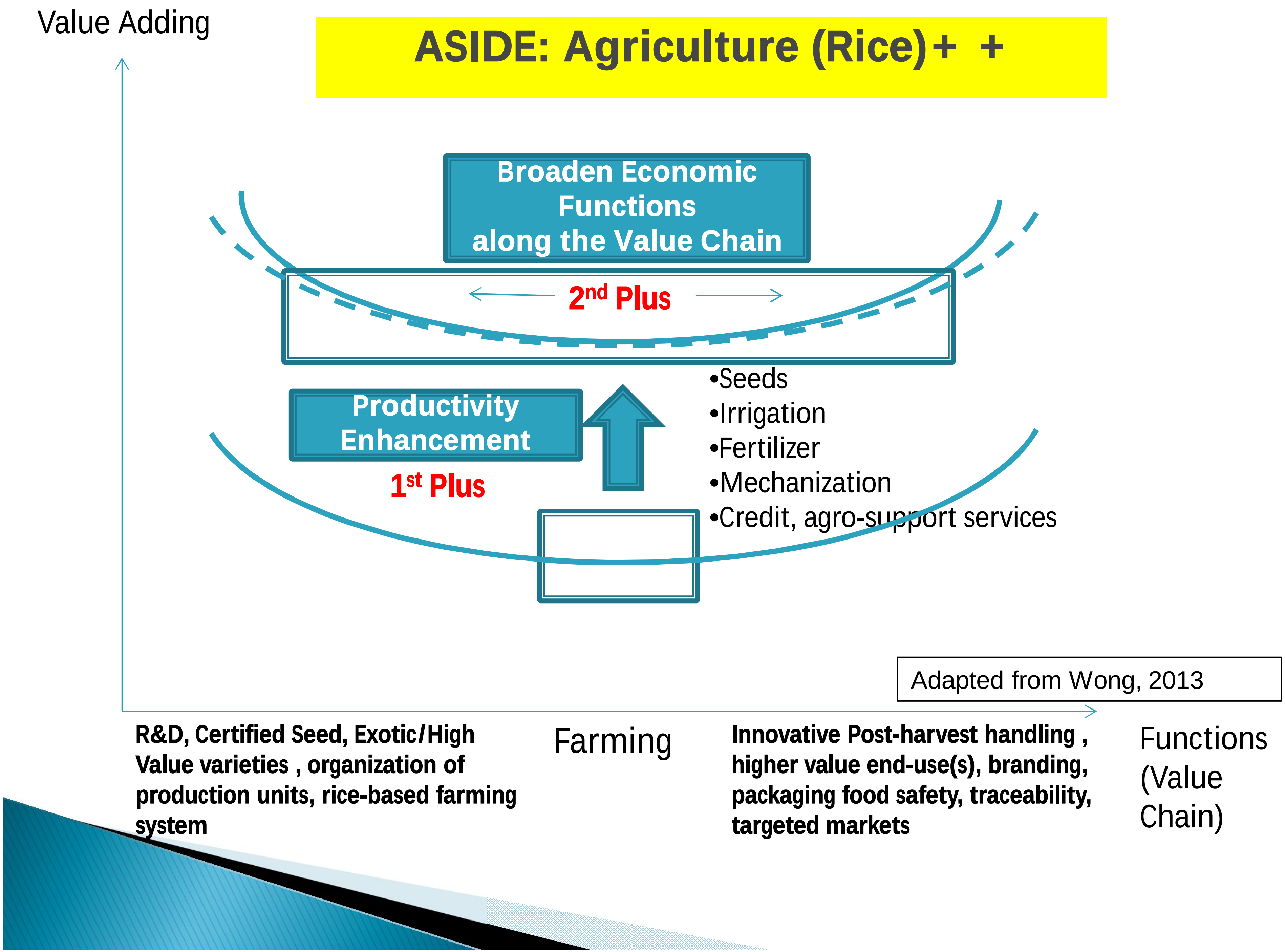
- **There can be amicable/sustainable sharing of margins along supply chain, especially transmission of prices back to farmers/producers.**
- **Small farmers/producers can be hooked up to increasingly sophisticated local supply chains (involving supermarkets) and more lucrative overseas markets, especially niche markets.**
- **Supply chains speedily exploit advances in biotechnology (21ST Century – 'Century of Biology') and convergence with ICT as well as innovations.**
- **Exponential growth, if and when interconnectivity of supply chains are exploited.**
- **Investments in agri-food supply/value chains accelerates structural transformation and rural-urban linkages**
- **Above all, it provides the means of using agriculture to drive overall growth.**

COMPREHENSIVE RICE SUPPLY CHAIN – Productivity increases, value adding and economic activities along supply chain



CURRENT/FUTURE OPPORTUNITIES

TIER I	INPUT / PRODUCTION / OUTPUT	▪ End uses, End uses enabled by science & technology innovations
TIER II	INTERMEDIATE SUPPLIER & SUPPORT SERVICE	▪ Inputs, Machinery & Equipment, Metal industry ▪ Industrial Chemicals, Paper industry, Printing ▪ Logistics, Business Services
TIER III	FOUNDATION PROVIDERS	• Infrastructure, Finance, HR Development • Technology, Regulatory Environment


Value Adding
ASIDE: Agriculture (Rice)+ +
Broaden Economic Functions along the Value Chain
2nd Plus
Productivity Enhancement
1st Plus
•Seeds
•Irrigation
•Fertilizer
•Mechanization
•Credit, agro-support services
Adapted from Wong, 2013
R&D, Certified Seed, Exotic/High Value varieties , organization of production units, rice-based farming system
Farming
Innovative Post-harvest handling , higher value end-use(s), branding, packaging food safety, traceability, targeted markets
Functions (Value Chain)

ASIDE: FOOD SUPPLY SYSTEM - UK

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

High
Medium
Low

- 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:

http://www.wrap.org.uk/wrap_corporate/news/food_waste_set_to.html (15.10.08).

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?

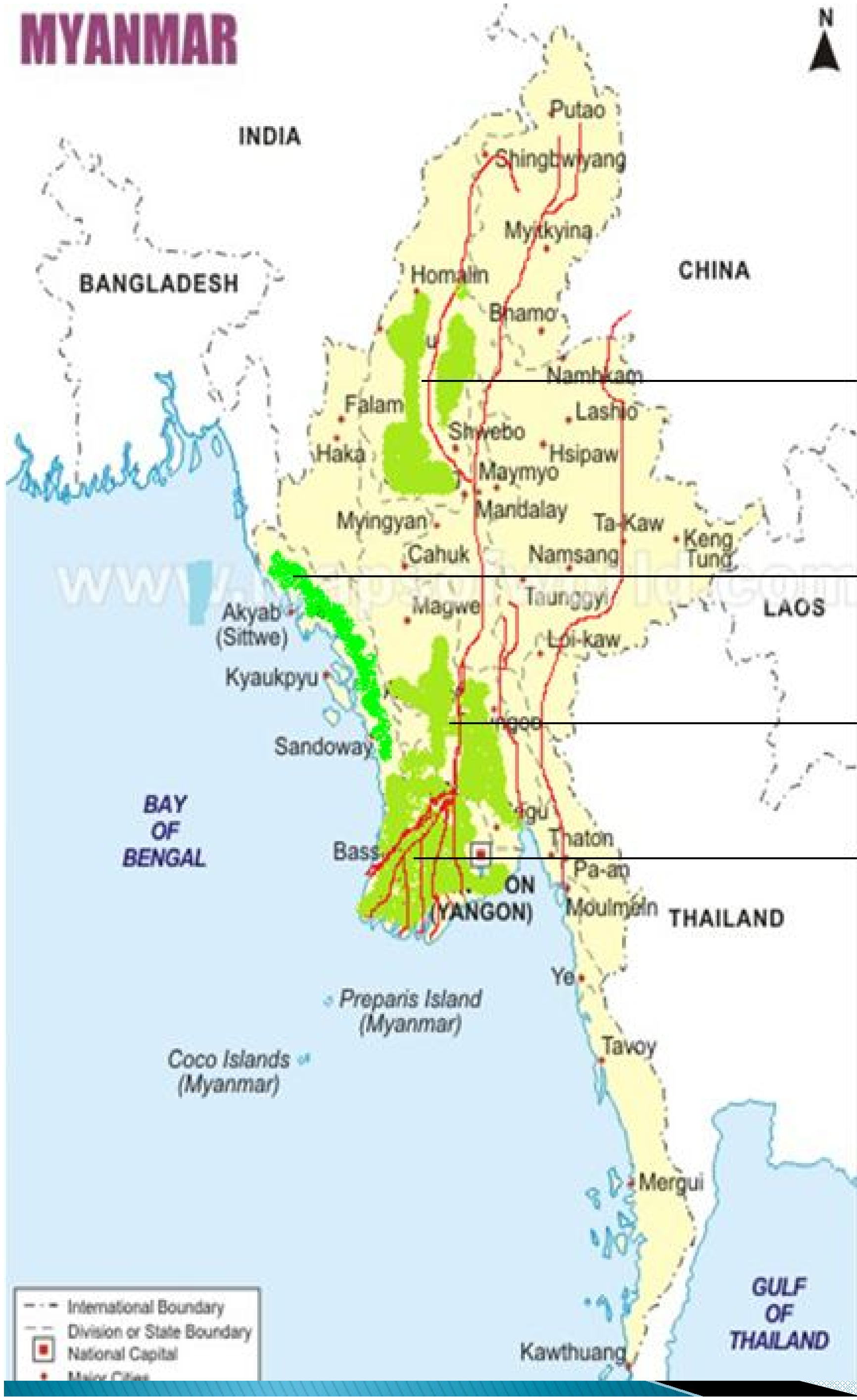
NATIONAL LEVEL : (Cont'd)

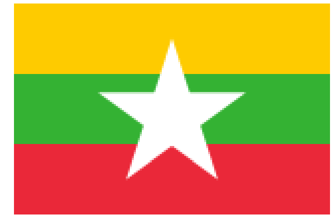
3. Dynamics (cont'd)

- 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 originates 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 prodn)

Four Major Rice Granaries in Myanmar

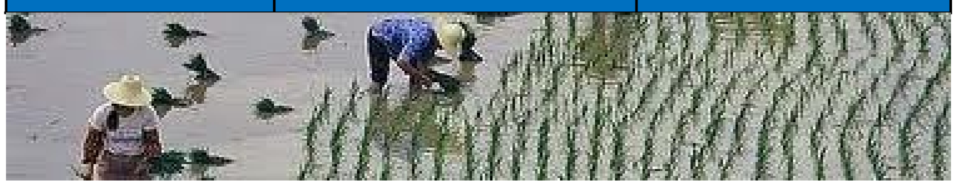
Cultivated area:
8 million ha
Total Production:
23.6 million MT (paddy)

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

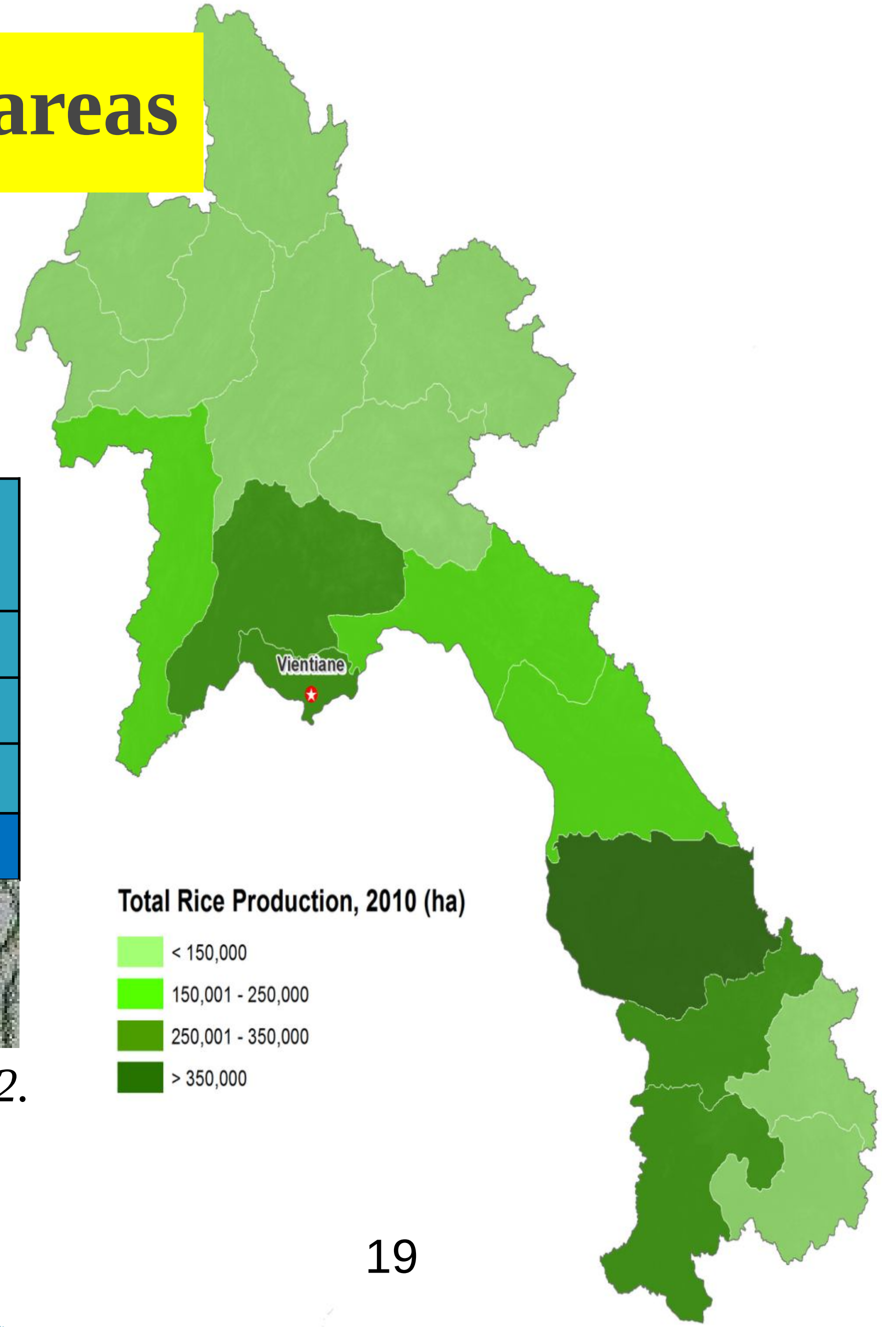
Production and harvest areas

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

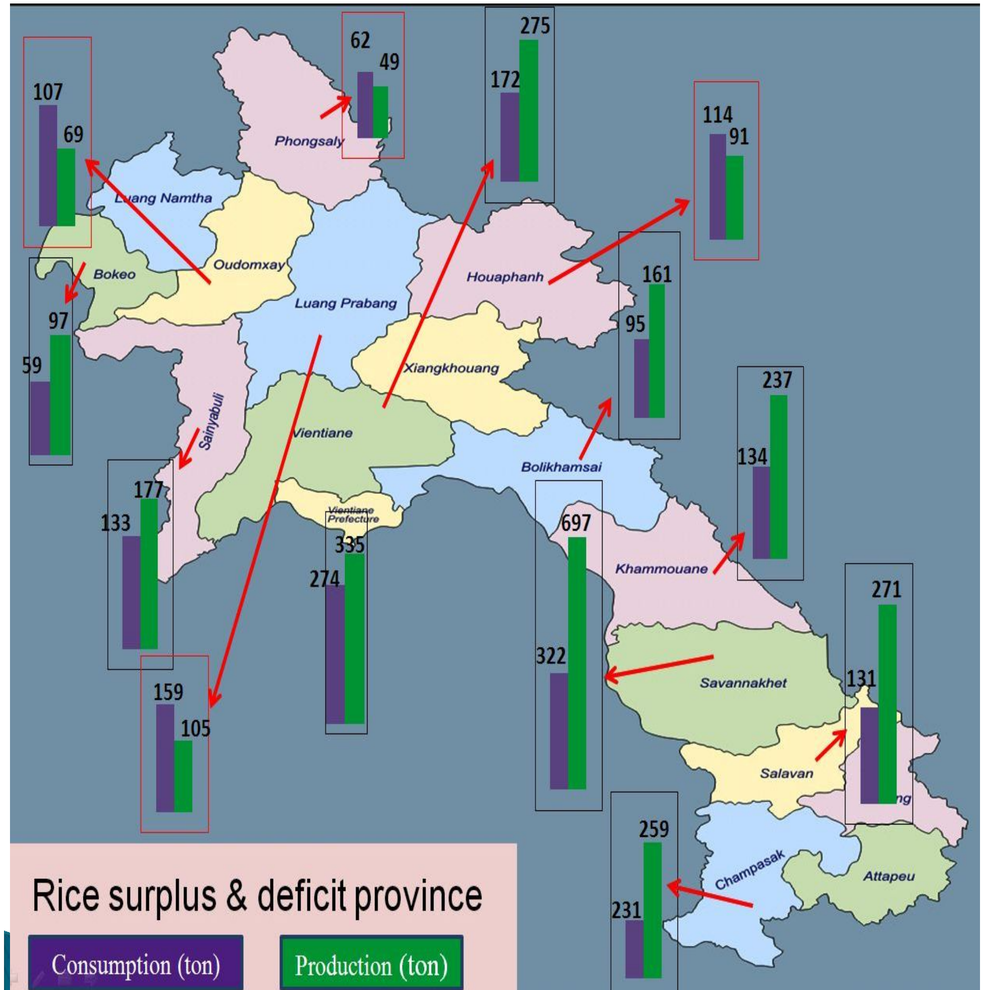
Particular	Harvest area (ha)	Production (Million tons)
Wet season	604.235	2.214.391
Dry season	101.611	477.110
Upland	69.117	141.597
Total	**774.963**	**2.822.098**

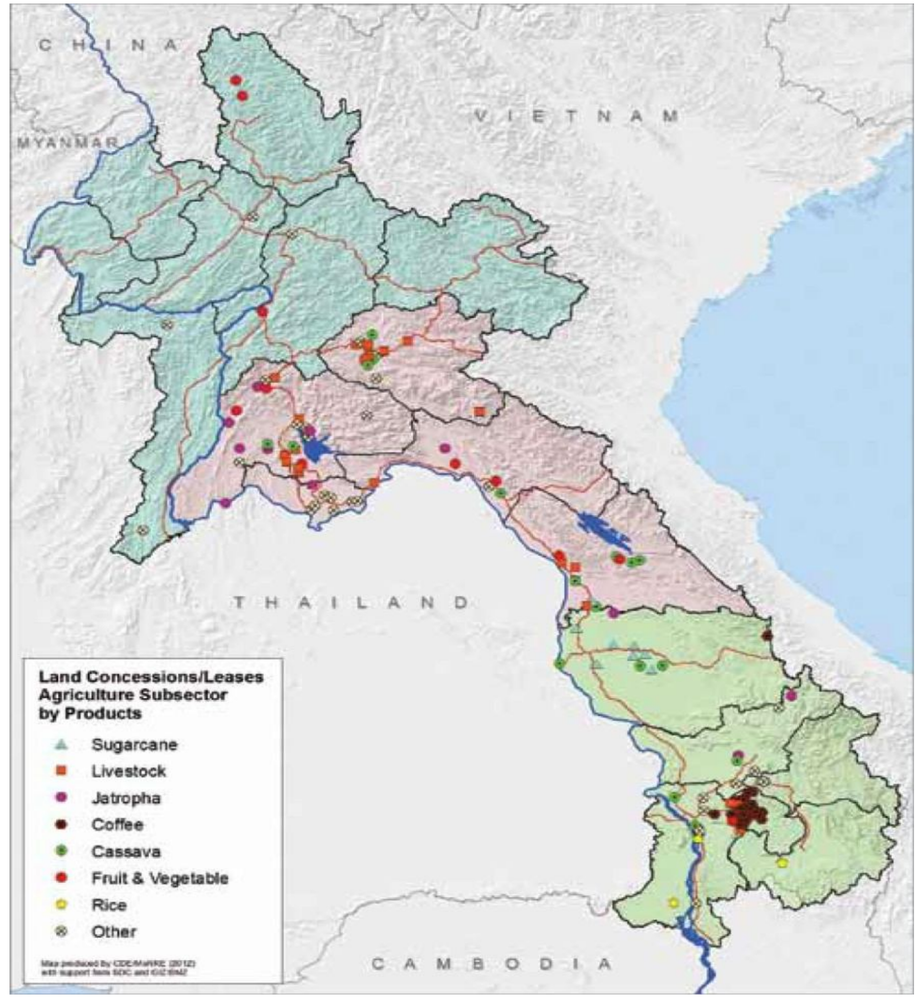


Source: Agriculture Census, MAF, May 2012.



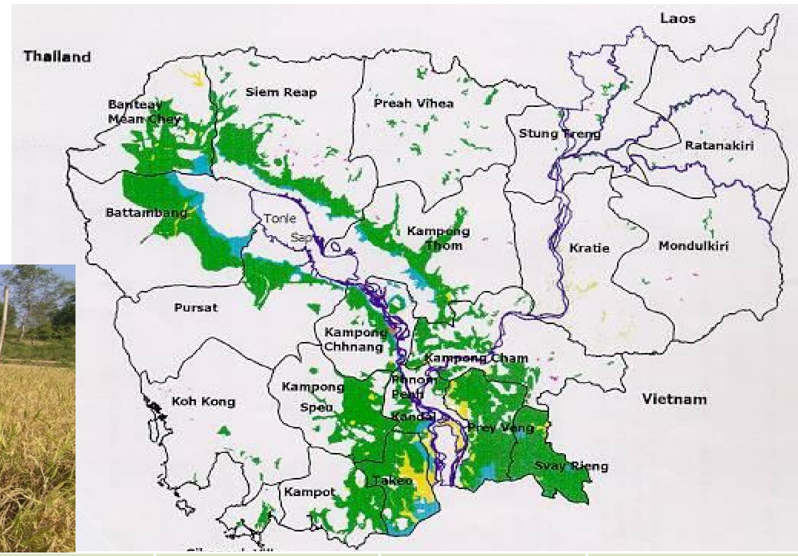
Rice Surplus and Deficit Provinces and Land Concessions by Investment Project Locations and Products in the Agriculture Subsector





Food Production in Agricultural Markets

Rice Production - Cambodia



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

Lowland Rice (80.4%)

Deep Water Rice (3.5%)

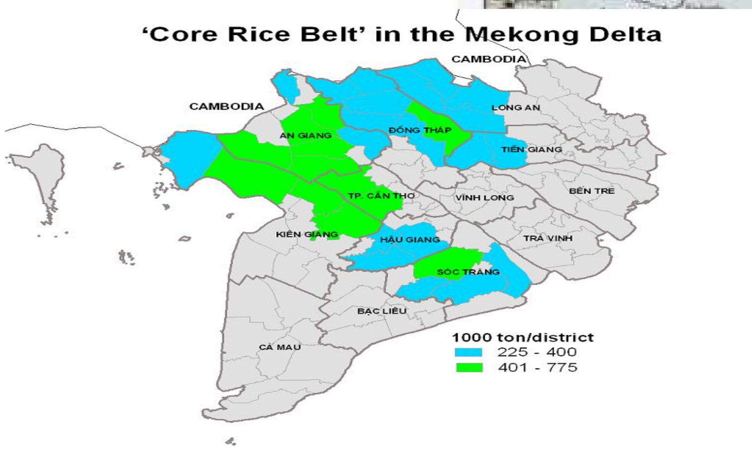
Dry Paddy Rice (14.2%)

Upland Rice (1.9%)

Viet Nam Rice Production

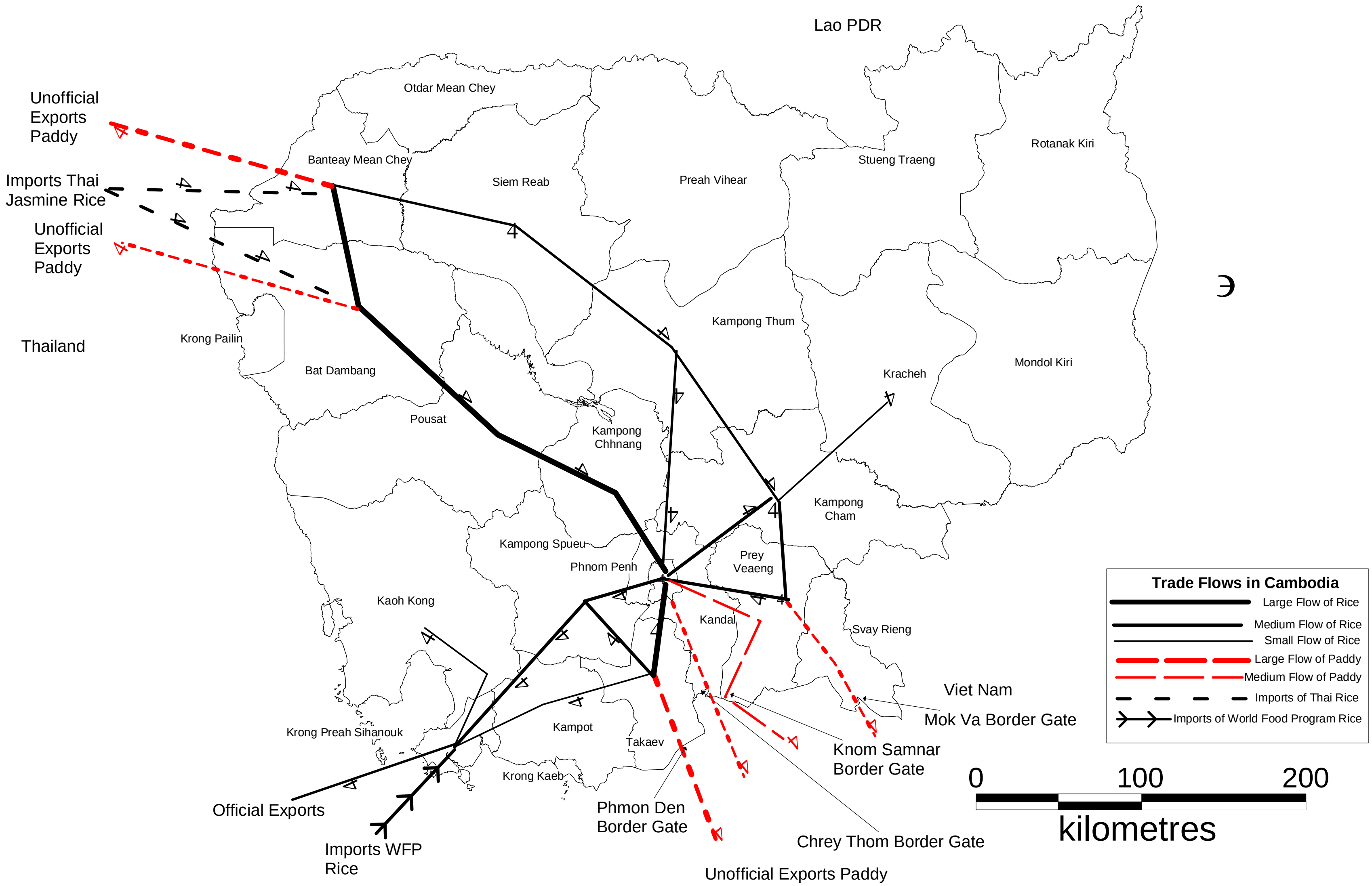
Rice land: 3.9 mil. ha
Cultivated area: 7.4 mil. ha
Yield: 5.32 ton/ha
Production: 40 mil. tons (paddy)
Export: 7 mill tons (rice)

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

Trade Flows Of Rice And Paddy In Cambodia – Conventional and Border Trade

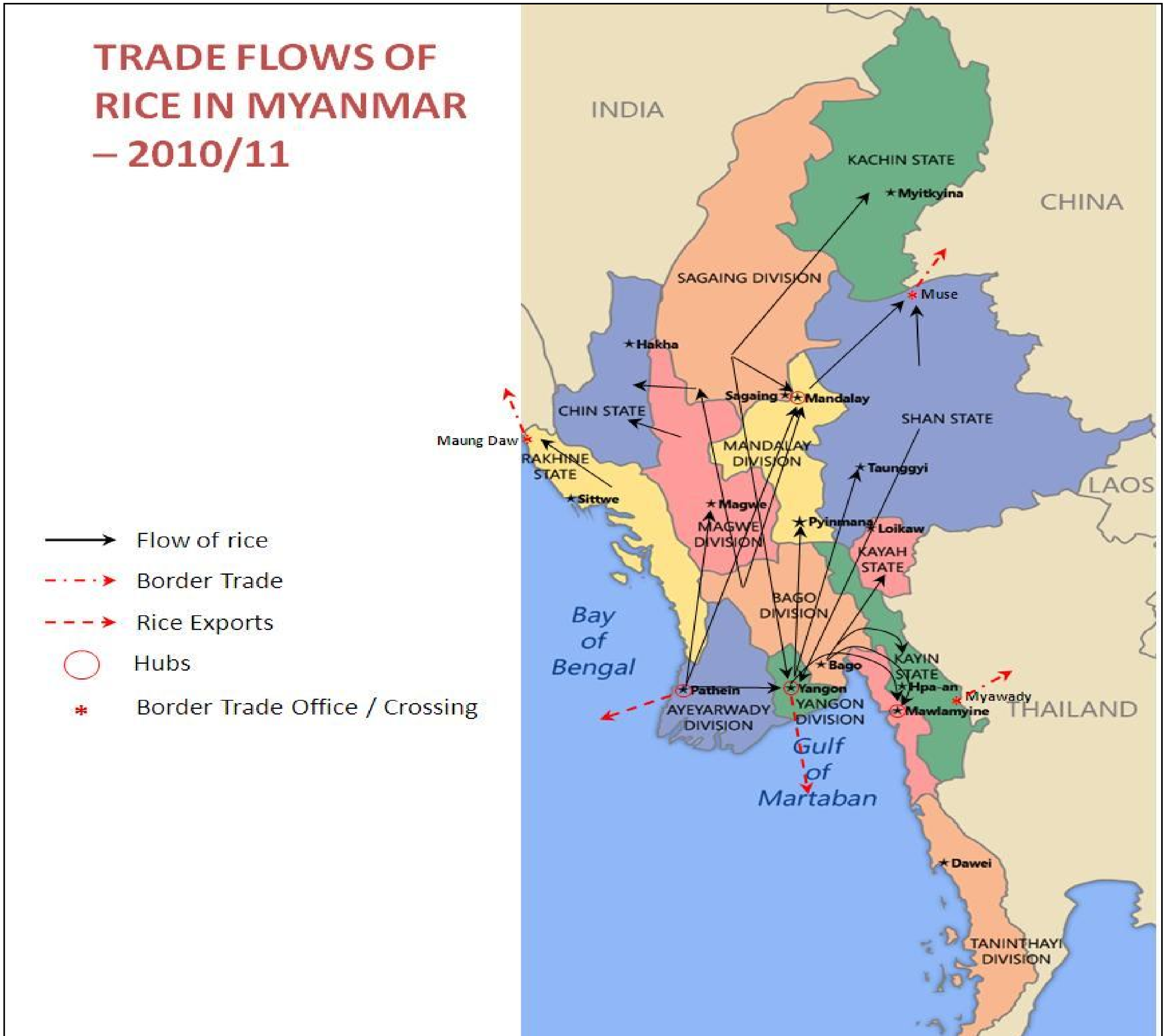


DIFFERENTIATED Rice Supply (Sub) Chains:

- **Traditional Rice Supply Chain**
- **Spatial & Arbitrage Supply Chain**
- **International Rice Trade Supply Chains**
- **Border Trade Rice Supply Chain**

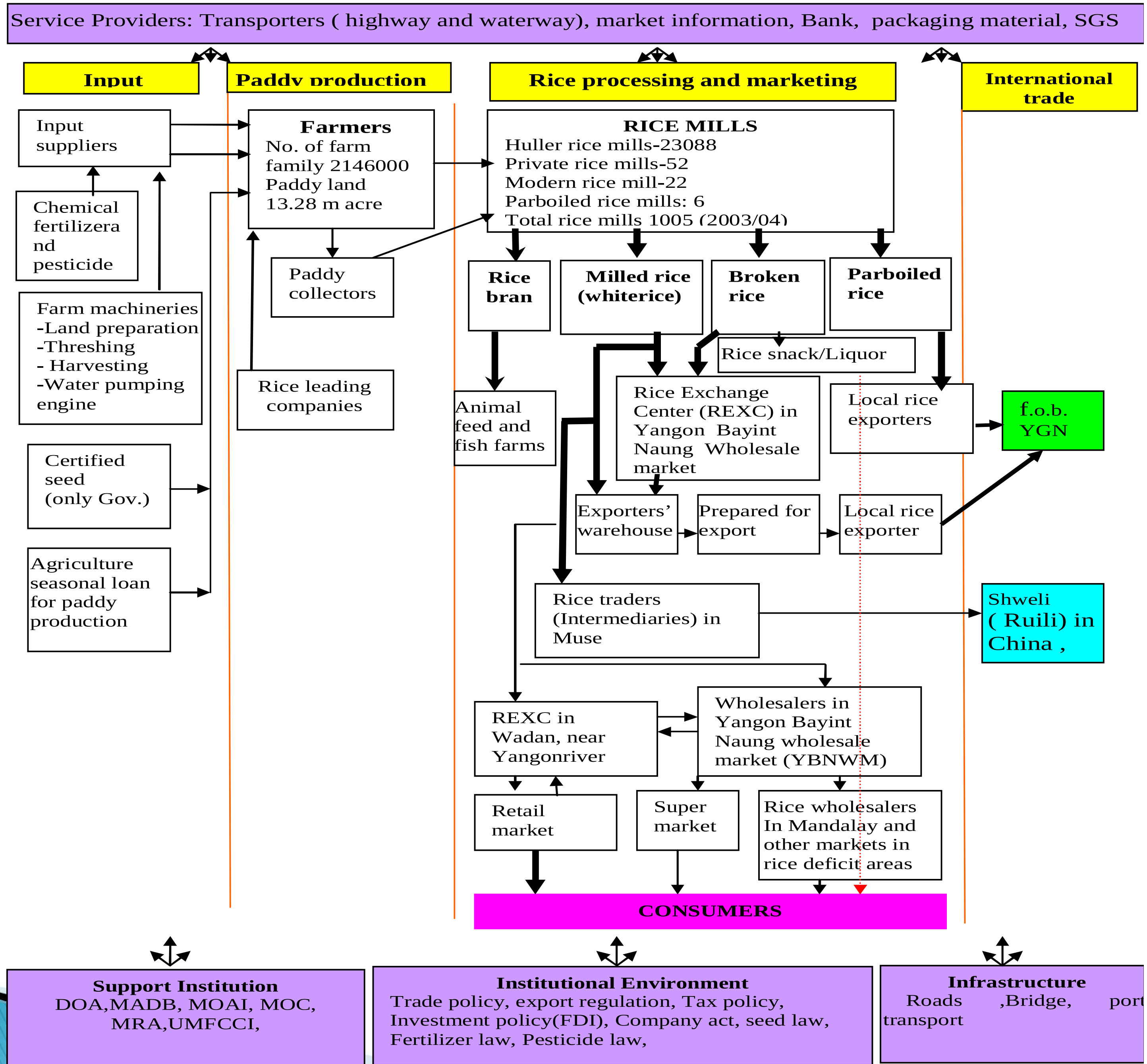
Also (for CLMV):

- **Traditional Rice Supply Chains**
- **Transforming Rice Supply Chains**
- **Modern Rice Supply Chains**

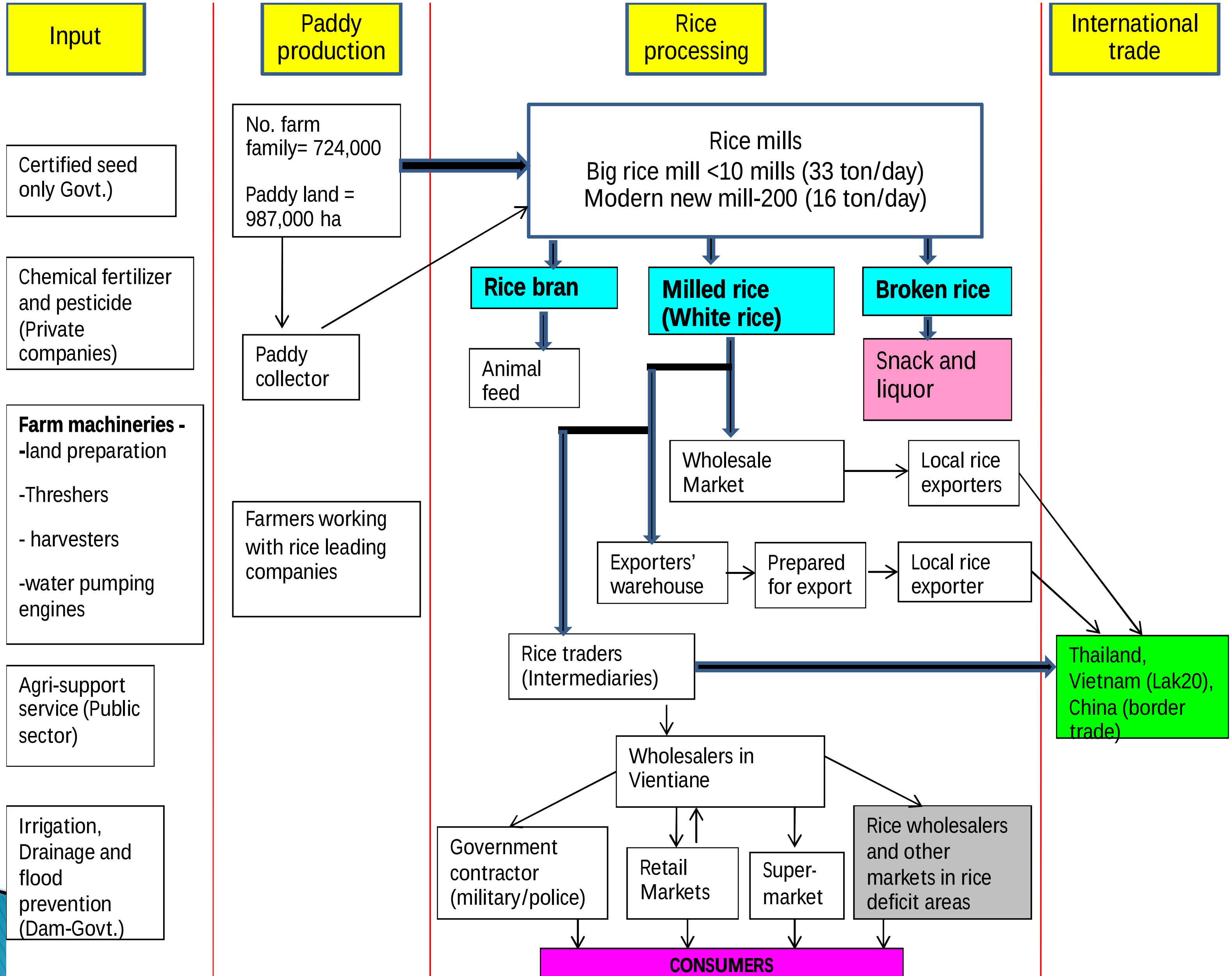


Source: Wong and Wai (2013)

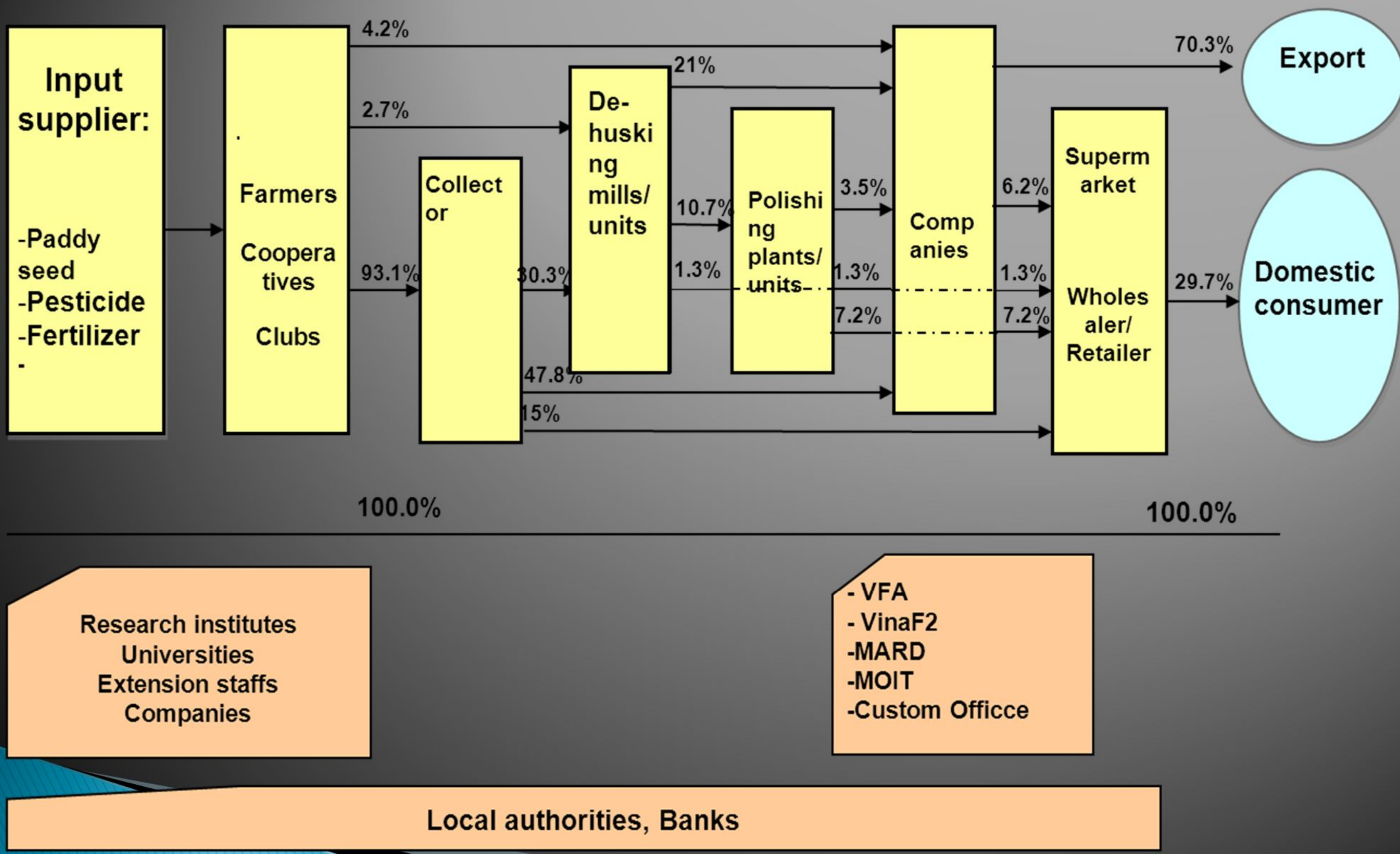
Figure 9. RICE SUPPLY CHAIN IN MYANMAR



Rice Supply Chain in Lao PDR



Rice supply chain in the Mekong River Delta



Source: Vo Thi Thanh Loc, 2010

ASIDE: FDI at Mills segment – technology, finance, markets

Viet Nam – 2000s – Golden Resources (Hong Kong); Kitoku (Japan) JV with Angimex in An Giang province

2007 – Vinafood JV with Iraqi Company in Cantho;

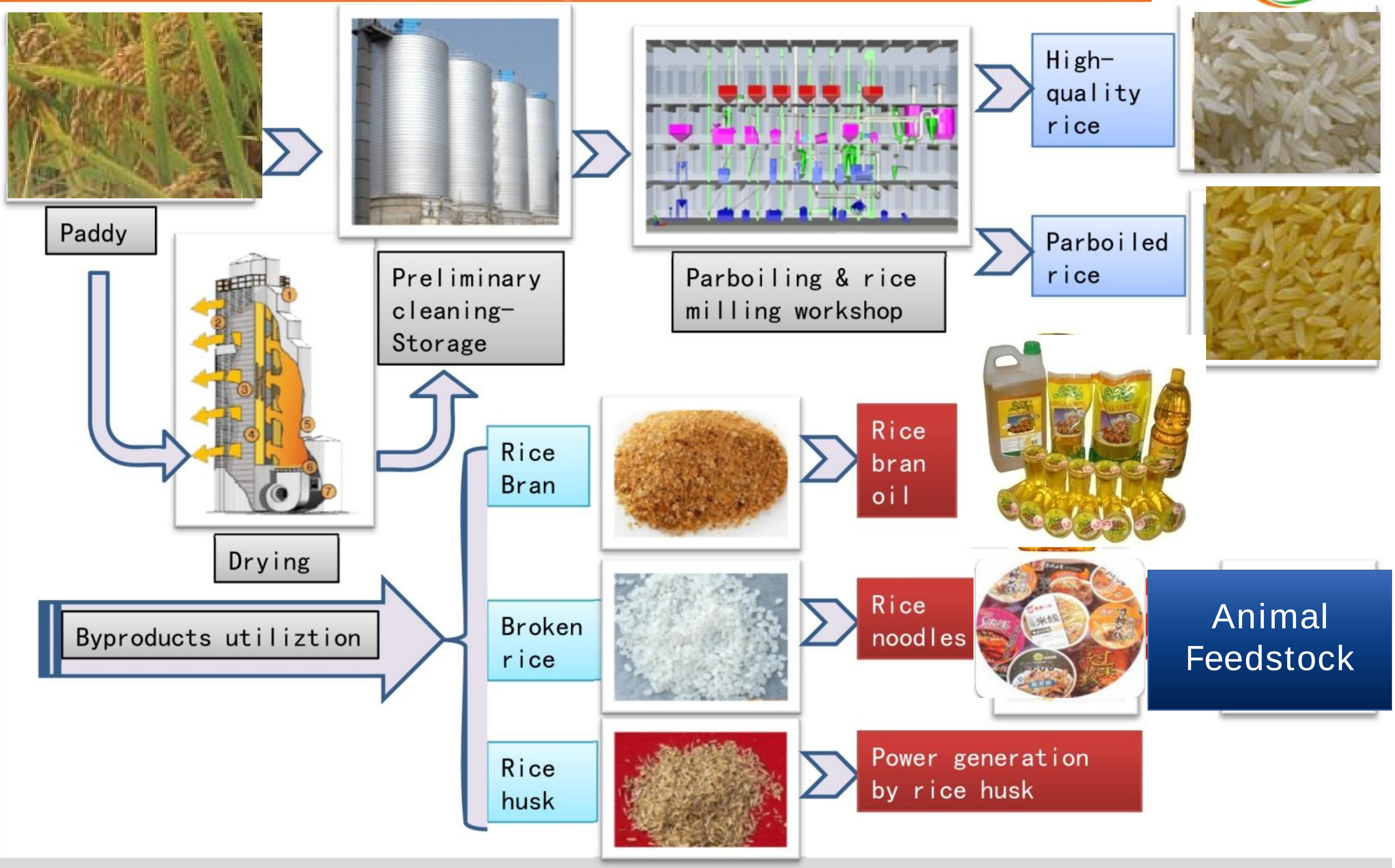
2012 – Vinafood JV with Singapore company in Dong Thap

Cambodia – QQ Rice – JV with Malaysian Co; CCAD – JV with Sinograin & Yunnan Pan Asia Ag Cooperation & Development Co; Long Grain Co – JV with UK and Indian investors; Batambang Rice Inventment Co (BRIC) – JV with Singapore investor; Crystal Rice Kampuchae – JV with Asia Golden Rice (Thai) in Kampot

Lao PDR – Lao World (Thai); Sengarthit (French)

Myanmar – Myanmar Japan Rice Industry Co Ltd – JV between MAPCO and Mitsui – 4 Integrated Rice Processing Centers; JV Siacom (French) with XY Trading Co Ltd in Ayeyarwaddy.

Transformation of Rice Supply Chain - Process Diagram



COMPARISON OF UP STREAM & DOWN STREAM LINKAGES OF THE SIX CASE STUDIES IN LAO PDR

Company	Up Stream		Mill		Down Stream				Remarks
	Contract Farming	Agents/ Others	Capacity	2012 Business Volume (MT)	Traditional W/Sale, Retail	Supermarket	Institutional	Exports	
Lao World		allied mills	100MT/ day	6,000		Own		Almost all	Diff to replicate
Sengarthit	Limited	mostly agents	30MT/day	5,000	Almost all	some			
Daum	Limited	mainly agents	5MT/day	1,200	Almost all				
Fu Teng & Dao Phet Group	12,500 contract farmers - seeds, fertilizers, agro-chemicals	some agents	390MT/ day	50,000	Almost all		3,000MT/yr to Police	glut rice Viet Nam; paddy to Thailan d	Also imported 500MT Viet Nam non-glutinous rice
Lao Agro. 2000 Co., Ltd	4,000 contract farmers	some	20MT/day additional 25MT/day	5,000		some	Beer Lao 2,400MT/yr, noodle 1,800/yr		400ha seed farm, stockpiles for Govt, own shop
Suthat	750 farmers	some	6MT/day additional 10MT/day	3,000	some		Beer Lao 1,200MT/yr Noodle 1,200MT/yr		EMRIP, own shop

Transformation in rice retailing in Lao PDR

From loose form in traditional markets to packed and branded
rice in supermarkets

Major Supermarkets in Vientiane includes:

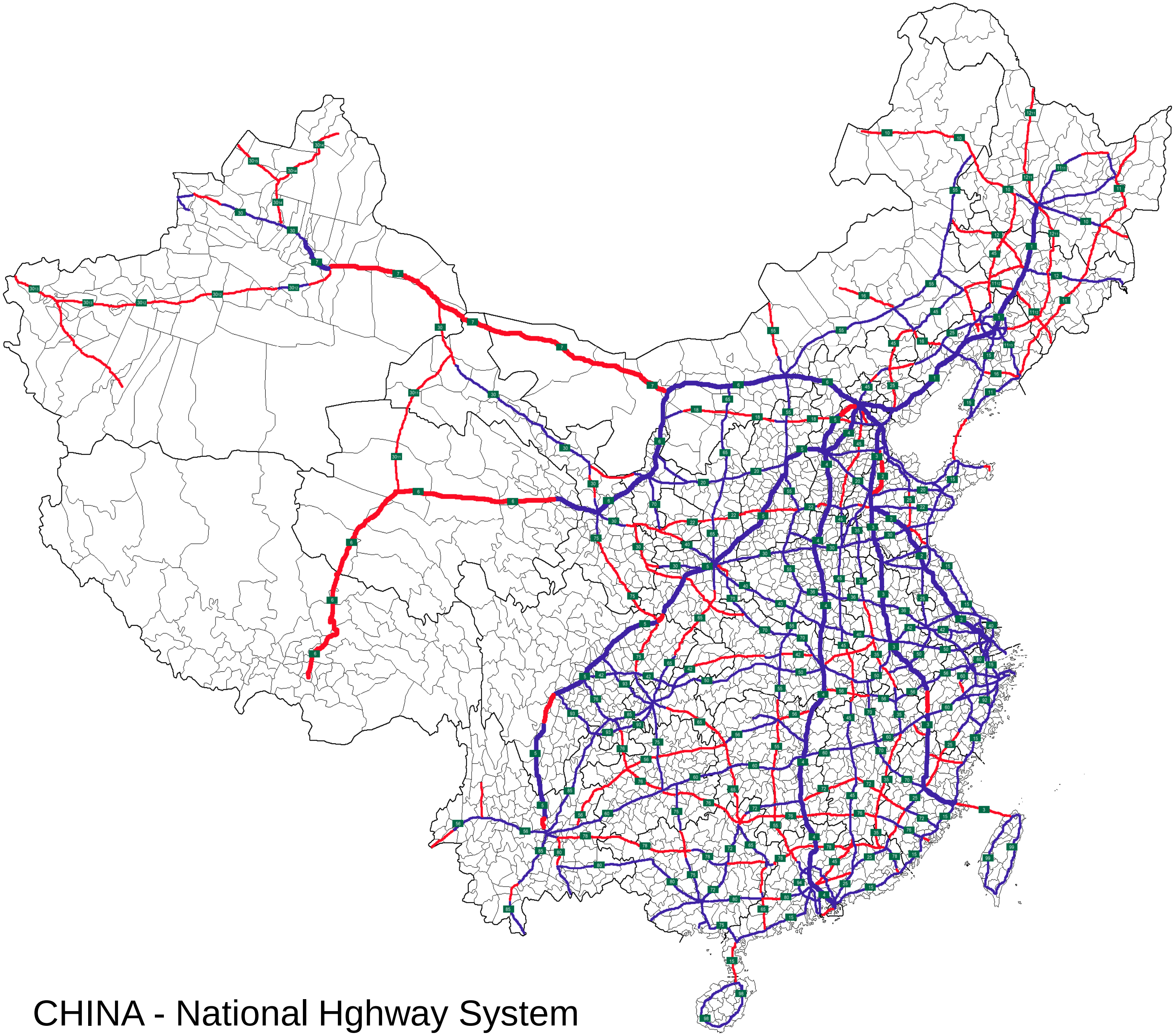
- Tengferes (Overseas Laotian)
- D'Mart (Chinese)
- U-Express (French)
- M-Point Mart (Thai)

GMS Connectivity

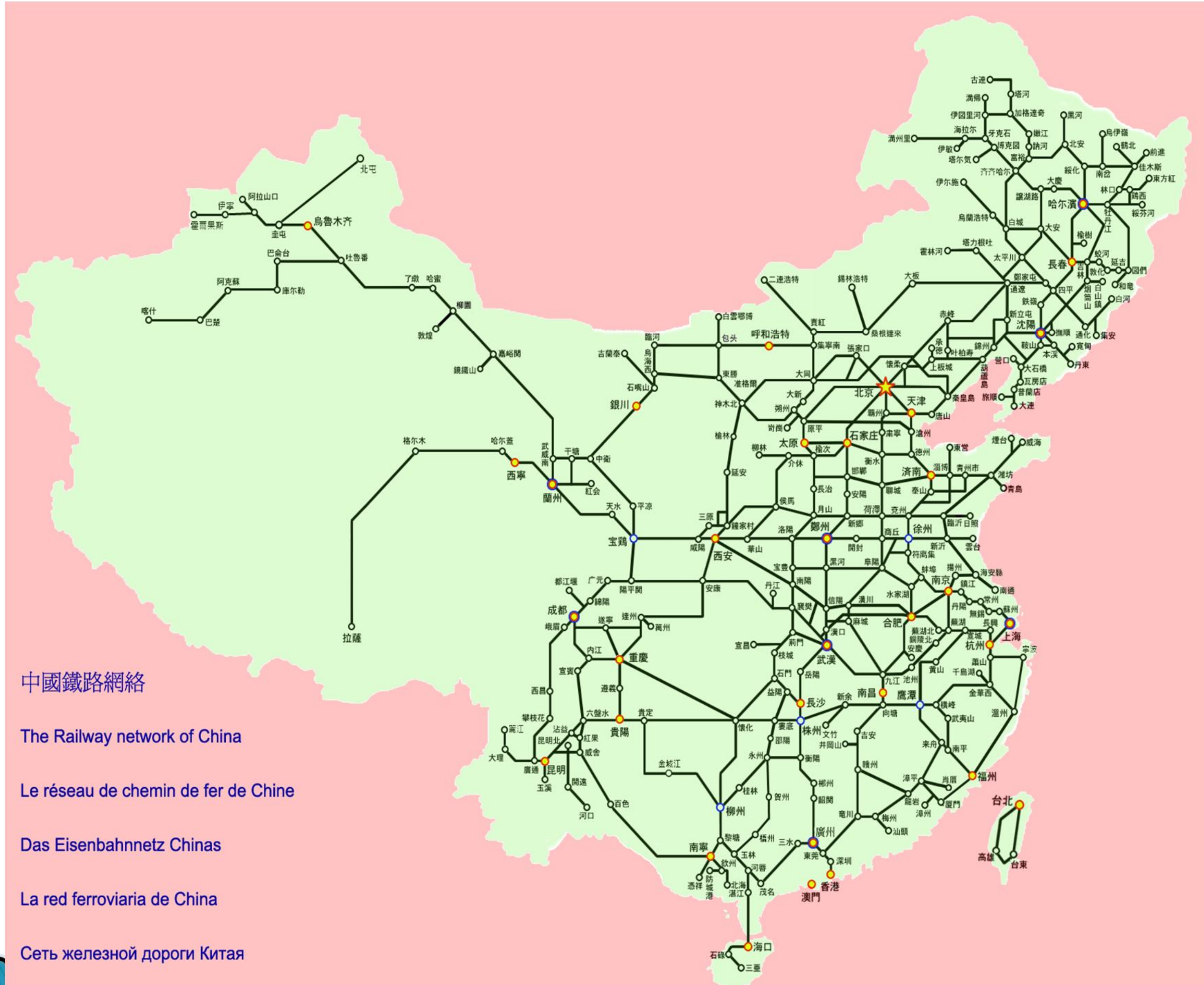
Road Transport Network

2015 (Committed)

Source: West Indochina

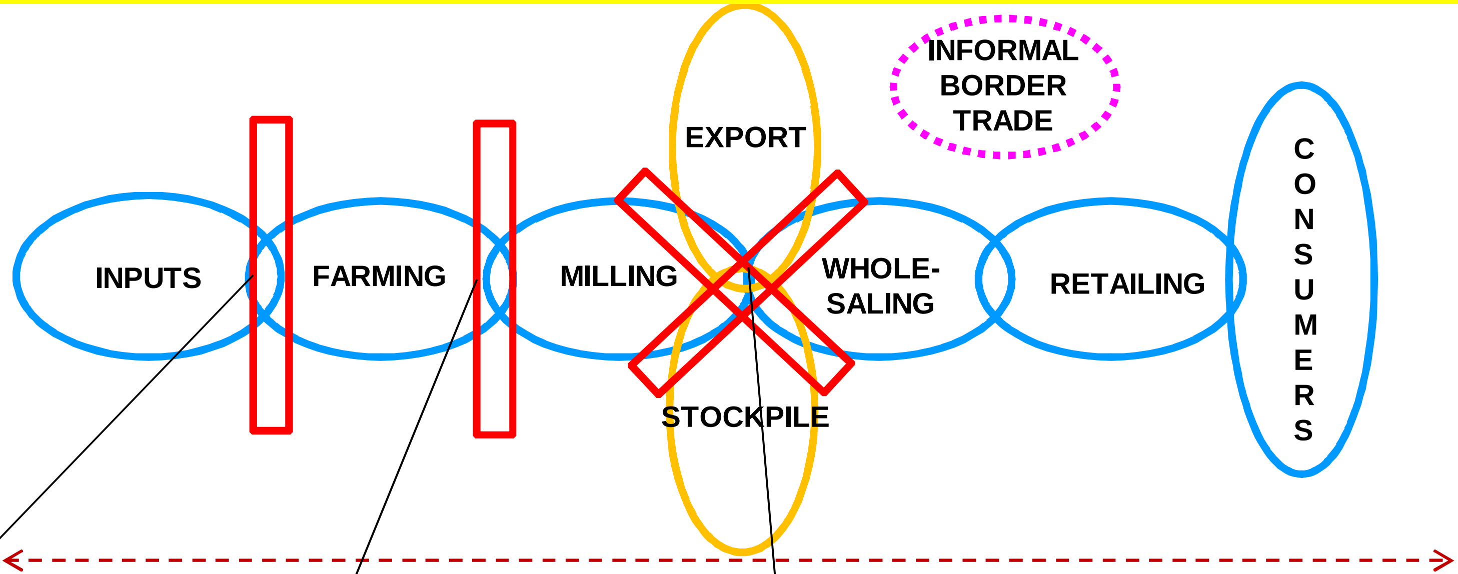


CHINA - National Hghway System



Current Railways in China

Prioritizing and sequencing interventions – Myanmar Rice Supply Chain : Strength of Chain is determined by weakest link



WEAK LINK 1

- purity and quality of seeds – mainly farm saved seeds
- low level of inputs
- poor water management
- poor quality of fertilizers – fake & adulterated
- misuse of pesticides
- weak extension service
- lack of credit
- poor infrastructure – farm roads
- Labour shortage – planting and harvesting

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
- Lack of Financing - most mills operating under capacity
- Low quality output – improved somewhat -recent new and upgraded mills

WEAK LINK 3

- Exports – inconsistency of quality and supply
- Dependency on African market
- poor understanding of dynamics of international markets – Supply driven
- Stockpiling – with MRF/MAPCO (private sector) – needs monitoring and evaluation
- Increasing border trade – especially to China - Myanmar side legal but China side informal/illegal
- High transportation, logistics, and handling charges at port

WEAK LINK 4

- Poor quality and inconsistent data - overstated production – difficult to plan and difficult to attract FDI
- Little or no sharing of data/ information along supply chain - collected and disseminated by different interest groups
- Financing issue not only with farmers but along entire supply chain

Trade structure (quality segments) has changed

World Trade: Est. Changes in Quality since Mid 1990s			
(millions of tons, milled equiv.)			
Quality	mid 90s	2005-07	2010-12
Basmati	.89	2.00	3.64
Jasmine	1.20	1.90	2.52
Jasmine Bkns	NA	.69	0.73
Glutinous	.28	.34	.46
Japonica	1.50	2.58	2.42
Rough	.50	2.45	2.36
Brown	.60	0.70	.64
Parboiled	2.15	6.93	6.07
High	3.20	5.10	8.14
Medium	2.50	3.07	2.97
Low	3.86	5.27	4.63
Brokens	.83	1.82	2.01
Total	17.50	32.85	36.60

Source: Personal Communication Tom Slayton

Key Importers Changing - Opportunities

Imports by Key Markets (million tons)				
	2011	2012	2013	CHG
Bangladesh	1.49	.05	.30	.25
China	.58	2.90	3.00	.10
Indonesia	3.10	1.96	1.50	-.46
Iran	1.87	1.70	1.50	-.20
Iraq	1.04	1.48	1.40	-.08
Ivory Coast	.94	1.45	1.15	-.30
Nigeria	2.55	3.40	2.90	-.50
Philippines	1.20	1.50	1.50	0
Senegal	.81	1.20	1.00	-.20
Others	22.69	23.51	25.75	2.24
TOTAL	36.25	39.15	38.60	1.54

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 – E175 or USD228/MT

Source: Personal Communication Tom Slayton

KEY CONSIDERATIONS :

- Underscores importance of supply chain to enhancing agricultural productivity - 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.

KEY CONSIDERATIONS : (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- (China's well developed rail and road links – to CIS and Europe (Rotterdam)

- 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 local and overseas niche markets and supermarket 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 – need to be proactive

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

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

KEY ISSUES AND RECOMMENDATIONS (Cont'd)

Also:

- 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 are currently net rice exporters - except for Myanmar, CLV were rice importers before – turn-around largely policy driven

2. At beginning of study in 2012, all CLMV targeted to export more rice in future – but more recently, on-going policy debate at national level is how much rice to produce and export? – in view of extensive nature, water requirement and low comparative profitability of rice. So recognize increasing importance of Supply Chain development (vertical diversification) and crop/enterprise choice or mix (horizontal diversification) – rice-based farming system

3. Except for Viet Nam (exports around 30-40% of total rice production), CLM export < 10% of production (much less that what they consume domestically). Cautionary note: disproportionate emphasis on rice exports supply chain – domestic spatial and temporal arbitrage supply chain equally important especially for food security, employment generation, poverty reduction, and inclusive growth

KEY MESSAGES: (Cont'd)

4. Dynamics of Global and regional rice markets – shifting trade and market segments – 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 and cross-border investments. Also new markets with preferential treatment - EU and Russia (CIS countries)

5. Productivity enhancement - along entire supply chain – beyond efficiency and cost of production, but also cost of milling/processing (electricity, capacity utilization), transportation, export processing, financing. A recent comparison across countries – CLM lagging especially much room for improvement

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 or restructured – future of SOEs and G to G trade? G to G facilitated but B to B executed

KEY MESSAGES: (Cont'd)

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 and modalities of provision of agri-support services and foundation for enhancing productivity – financing, technology and business organization and market access.

8. Need to get basics, balance and leveraging right in order to support ASEAN Equitable Economic Development - role of Government still important in the wake of increasing importance of private sector and P-P-P

KEY MESSAGES: (Cont'd)

9. Future prospects/Recommendations

- Policy issues – sequential strengthening identified weak links in rice supply chains;
- Coordinated initiatives/emphasis on green food (low chemicals, traceable, food safety - food scare, absence of heavy metals);
- Development of more high-value end-uses – transmission of better prices to farmers/producers;
- Proactive in attracting FDI (technology transfer, export platform);
- More organized border trade – leveraging on increasing GMS and ASEAN connectivity – for Viet Nam, with Cambodia and Lao PDR as well as
- New Markets with preferential treatment – EU - EBA and possibility China and Russia) – more proactive
- Scalability and Replicability of innovative approaches – adaptation, sharing and shoring
- Explore possibility of development of 'regional rice cluster' covering not only CLMV but also ASEAN + 3

CONCLUSION

- **With increasing interconnectivity/interdependence in Technology, Productivity, Regional Trade and Food Security – need to view as food ecosystem – increasingly develop and apply systems and trans-disciplinary approach, especially in view of overlapping regional frameworks**

- **Interesting work is being conducted incorporating 'complex theory' – involving systems approach innovatively combining hard and soft systems analysis, coupled with systems to manage information/knowledge**

- **Ultimately, and paraphrasing Victor Hugo, markets open to trade and minds open to ideas will help drive CLMV's individual and collective efforts in addressing regional integration, catching up, and food security, ultimately targeted at efficient, inclusive and sustainable growth.**

THANK YOU !

www.isis.org.my

larry@isis.org.my