Transformation of Horticulture Supply Chains in an era of Rapid Urbanization in developing Asia

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1. Most of Asian food economy is <u>domestic sourced</u>

… 85-90% of Asian food economy is domestic sourced; more than 95% for horticulture products

… 10-15% is imports (with a growing component of intra-regional trade); less than 5% for horticulture products

- ➔Thus by far the **big story for horticultural products supply chains is the domestic market (not trade,** which is very minor and will stay that way for a decade or more)
- ➔ … although the main horticulture trade growth will be in fruit
- ➔.. And will be **intra-Asian trade** such as India mangoes to China and China oranges to Indonesia

2) Domestic Food Market is urbanizing fast & urban market already big majority of food market

a) Rapid urbanization of population in Asia

… **urban share of population: 18% in 1950, 44% in 2010, projected 56% by 2030**

b) Rise of Small cities/towns within urban space = 60% of urban population in Asia

… mega cities only 40% (but focus of debate often on mega cities)

… 70% of urban poverty,

… important nodes in the supply chains (agricultural services & wholesale, logistics, & processing)

… extremely important node for hort products

c) **<u>Opportunity of urbanization in Asia</u>**:

c.1) BIG: Urban food markets already the majority of food consumption and markets!

… **55-75% of national food expenditures by urban consumers (> population share)**

… 75% of Indonesian mangoes sold to Indonesian cities

.. 1% of Indonesian mangoes exported

… 80-90% of mangoes sold (<u>small share of hort products are home-consumed</u>)

c.2) rural-urban supply chains GROWING FAST:

… in 3 decades: Southeast Asia, 1000%

c) **<u>challenges</u>**:

c.1) have to produce huge quantities for cities: each farmer has to feed his/her family plus 3 urban families

c.2) have to handle and move huge quantities (transport, wholesale, processing, etc.)

→ Importance of the “hidden middle”

3) Importance of Midstream & Downstream of Value Chains

a) Food Security debate long focused on the farm sector (of course, important)

b) But 50-70% of the costs and value in value chains (VCs) are formed after the farmgate (higher for horticulture than for grains)

… midstream (wholesale/brokers/logistics & processing)

… downstream (retail)

→ **Productivity of (and investment in) midstream/downstream segments is as important to food security as farm productivity is**

4) Demand Side: rise of FV

a) FFV consumption (in food budget (home produced and purchased)

… urban Bangladesh, 30% grains; 16% FV

… rural Bangladesh, 42% grains; 14% FV

… urban Indonesia, 26% grains, 15% FV

… rural Indonesia, 34% grains, 17% FV

… urban Nepal, 28% grains, 15% FV

… rural Nepal, 36% grain, 14% FV

… urban Vietnam, 20% grain, 10% FV

… rural Vietnam, 35% grains, 9% FV

Some demand side punchlines

… compare the Asian figure of 15-17% for FV to the figure of 16% for the US consumer in 2000

… compare the Asian figure of 31% for grains (only 2x that of FV…)

… compare with focus of food security debate on cereals

… and note rural and urban close shares!

b) **Share of purchased food in total rural food expenditures (purchased + own production) high!**

Indonesia and Bangladesh, about 80%

Nepal and Vietnam, 65-72%

… farm households heavily involved in markets as sellers AND buyers

➔ Implies rural-rural & urban-rural supply chains also very important to food security

5. **RAPID Agrifood system transformation in Asia**

Double revolution in agrifood systems:

… modern revolution of large scale

… Quiet revolution of SMEs rural-urban supply chains

5.1) Modern food industry revolution in Asia especially in 1990s-2000s

a) supermarket revolution!

… lightening fast spread of supermarkets in Asia and Latin America

… far faster than in the US supermarket spread:

Brazil did in 10 years what the US did in 50 years

… China twice as fast supermarket spread as Brazil!

… 3-5 times faster than GDP/capita growth!

b) **Most of the horticulture product supply to wetmarkets/wholesale markets next decade**

… with supermarket market emerging fast (much faster than US)

→**Beijing supermarkets : 35% of fruit retail; 20% of vegetable retail; 50% of rice**

… like France in the 1970s & Hong Kong in 1990s, US in the 1950s/1960s

… FV penetration in Asia supermarkets FAR faster than it happened in the US

… quality and safety issues over time

5.2. Quiet Revolution in food supply chains

a) **Quiet revolution: the rapid emergence of 10's of 1000s of SMEs along the supply chains from rural to urban areas**

b) **in wholesale, transport, cold storage, processing, retail, restaurants, agricultural services like tractors**

… potato cold storages in India, Bangladesh

C) **Important for job creation especially in <u>small cities/towns</u>**

6. Implications

a) Important to invest in "hidden middle" of the horticulture supply chains

b) Important to help farmers to adjust to market which is now MAINLY urban and increasingly demanding of

… quality

… consistency

… inter-season

… safety

→ Horticulture for local rural market and home-consumption is and will be small share of total

… small horticulture farms are increasingly small commercialized businesses

… so business environment crucial to horticulture (breeding (such as for yields and shelf life) and training are necessary but not sufficient)