Rapid Transformation of Agrifood Value Chains in Asia

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1. A huge majority of the food economy is **domestic** – trade (exports/imports) is a tiny share

… 95% of Asian food economy is domestic; 5% is international trade

… While trade is important in some items, the domestic sector is by far the most important overall

➡️ I focus on domestic food sector in the talk
2) Domestic Food Market is urbanizing fast & urban market already 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) Urban food markets already the majority of food consumption and markets!

... 65-75% of food expenditures by urban consumers

.. compare with 5-10% share of exports in output...
rural-urban food VCs are the majority of food in the countries

extreme importance of these VCs for national food security

... and for farmer incomes
3) Importance of Midstream & Downstream parts of VCs

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

b) But 50-70% (grains vs perishables) of the costs and value in VCs are formed after the farmgate

... 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: rapid rise of non-grain consumption

a) Share of grains falling in consumption:
   ... Asia urban areas: cereals share about 25% in total food expenditure
   ... Asia rural areas: 37%

b) Rapid rise of consumption & VCs of vegetables, fruit, meat, fish, dairy: 75% & 63% of food expenditures!

c) While urban share of food market is 60%, urban share of non-cereals markets is 80%
- Rapidly rising importance of cold chain & logistics for perishables & irrigation/greenhouses
- Rising importance of meeting quality & safety requirements of medium + large processors
5) Supply Side: Rapid transformation of Agrifood Value Chains

a) Rapid rise in the VOLUME of rural-urban value chains (now moving 60-70% of food in Asia)
b) Rapid rise in the geographic LENGTH of VCs from rural to urban areas –

⇒ Implies a river of money flowing from cities to farmers in deep rural areas
⇒ but also implies increasing vulnerability of food supply of cities (long supply chains are vulnerable to energy shocks & climate shocks)
c) Double Revolution in the value chains:

... a MODERN revolution (rise of supermarkets, large processors)

&

... a QUIET revolution (grass-roots investments by 10’s of 1000s of small/medium enterprises along the supply chains

... findings based on our “stacked surveys” of 8000 farms/firms in segments along value chains in past 8 years in Indonesia, China, Bangladesh, India, Vietnam, Philippines
6) Downstream: Rapid Rise of Supermarkets

a) Spread of supermarkets earliest (1990s/2000s) in Asia & Latin America
b) Mainly focused on urban markets, transforming them rapidly
c) Supermarket sector growing 2-4 times faster than GDP/capita

... displacing small shops & wetmarkets
Opportunity for investments for processors, wholesalers, and farmers to meet supply chain needs of supermarkets
7) Midstream in the VC: Rapid rise of food processing segment

a) Processed foods HUGE in consumption rising rapidly:

... in urban Asia, overall 73% of food expenditure is processed, with “low processed” 58% of the total processed and 42% “high processed”

... in rural Asia, overall 59% of food expenditure is processed, with “low processed” 69% of the total processed and 31% “high processed”
b) Rapid investment in processing sector in rural & urban areas

... proliferation of Small/medium processors (QUIET REVOLUTION in processing)

... BUT increase in scale (investment by large processors)

... AND technology change (capital/labor ratio increase)
8. Rapid transformation of the wholesale/logistics segment

a) Fast spread and growth of public wholesale markets: 10,000% in China in 1990s

b) Recently: Emergence of modern specialized logistics/wholesale companies serving large processors & supermarkets

... like Bimandiri in Indonesia
c) But Extremely rapid growth – QUIET REVOLUTION - in the wholesale & logistics firms in rural & urban areas!

... 10’s of 1000s of SMEs in trading, cold chain, logistics, making investments

➔ Some “value chain finance” and a little “bank finance” but mainly “own finance”
d) But rapid DISAPPEARANCE of traditional “village traders”
... “disintermediation” in supply chains – fewer hands along longer supply chains

e) disappearance of traditional TRADER FINANCE to farmers - CONTRARY TO CONVENTIONAL WISDOM about “tied output credit markets”
... Bangladesh, China, India, Vietnam: from our large surveys: 2% of farmers got this finance and 2% of traders gave it

- Rise of farmers’ self-finance (sales + nonfarm income)
- But opportunity for accessible bank finance to farmers
9. Upstream: Importance of agricultural commercialization + rural labor markets for farm finance

a) Farmers heavily engaged in the market as sellers and buyers of food

... in Asia, farmers sell 60-90% of their rice crop, 80-90% of their fruit/veg crop

... in Asia, rural households buy 60-80% of their food

b) They finance food consumption from crop sales + rural nonfarm income (RNFI) + migration

... RNFI about 40% of rural incomes in Asia
10. Upstream: Transformation of input supply sector

a) Similar trends to processing:

... huge expansion (chemicals, seeds, farm machines as farms intensify technology to meet food and VC demands)

... large investment by SMEs

... emergence of large scale players
b) Rise of “ag service firms” (farmers “outsourcing” labor/input services
... “cross-province grain harvesting mechanization services in China”
... sprayer-traders in mango sector in Philippines and emerging on Java
11. Conclusions

a) There is a rapid transformation of agrifood value chains in Asia

b) This transformation is a combination of a Modern Revolution and a Quiet Revolution all along the supply chains.

c) This transformation is and will be key to food security in the region