3RD ADB THINK-TANK FORUM
MALAYSIA, SEPTEMBER 2015

A BACKWARD LINKAGE OF LAO AGRIBUSINESS VALUE
CHAIN:
A CASE STUDY ON KNOWLEDGE AND TECHNOLOGY
TRANSFERS IN LAOS

Xaysomphet norasingh
Economic Research Institute for Trade
1. Overview of sector
2. Finding from the study sector
   - The challenges of sectors development,
   - Agri-business and its market-related issues,
   - Labor force situation in the sector,
3. Global value chain challenges
4. Lesson learnt from the study
5. Conclusion and policy recommendation
Agriculture sector is a key player in the agro-economic modernization and market expansion processes that will promote access for Lao products to regional and global value chains.

The Government of Laos is expecting foreign agribusiness investors to:
- Collaborate with local SMEs, in particular to upgrade the quality of local agricultural products by utilizing technology from partners to local.
- Foreign Direct Investment is expected to:
  - Introduce industry-best production technologies,
  - Family- and community-based post-harvest handling, and
  - Value added processing in rural areas,
The SME participation in global value chains of big companies invested in Laos is limited.

Local firms cannot gain much benefit from MNCs due to:
- Low production capacity and Poor marketing skills,
- Cannot provide stable supply to MNCs, and
- Technology usage in factories not up to date,
- Local firms remain producers of primary products and raw materials for processing in neighboring countries, with little value added retained by domestic stakeholders in the value chain.

Most of agri-processing factories invested by big firms are vertical integrated investment or Greenfield investment.

Local farmers become one-side suppliers without gaining any benefit from knowledge transfer from FDI.
Research Methodology:

- Conduct both desk-based research and participatory assessment approach by conduct firms’ interview and examine the business operation of two selected firms.
- Conduct cross case comparison to identify global value chain of local, Joint Venture and Foreign Direct investment firms as well as knowledge transfer from those firms to local stakeholders.
- The interview mainly focused on backward linkage rather that forward linkage. So, the key on how firms transfer knowledge and technology to local workers, farmers as well as buyers to firms are the main ideas to discuss in this study.
- Finally, the study come up with policy recommendation to the local government to take into account for future utilize from the result of this study.
Overview of sector

Research Framework

- Knowledge transfer from the focal firm (e.g., teacher) to foreign or domestic supplier/buyer (e.g., student)

1st Step
- Cross-border knowledge transfer from foreign buyer/supplier/intermediaries (e.g., teacher) through international trades (or traders)
  - Or
  - Domestic knowledge transfer from FDI buyer or supplier (teacher).
Finding from the study sector

The challenges of sectors development

- Inexperience among entrepreneurs and producers in accessing markets;
- Decentralized authority for trade; and, logistical issues.
- Less technology is introduced to the local business and farms whom suppliers’ raw material to factories.
- Limitation of market access and production knowledge and skill of local producers.
- Low agribusiness management techniques, and advanced agricultural technologies
The challenges of sectors development

- Foreign firms dominate the agri-processing in Lao due to local producers are lacking of foreign market knowledge and information.
- The development of value-added processing facilities is also delayed by a regulatory system built on control and fee extractions rather than facilitation;
- Storage facilities for agricultural products in rural areas
- Lack of knowledge on supply chain management
Agri-business and its market-related issues

- Local sugarcane farmers in this case study have an inadequate understanding of domestic, regional, and global markets.
- Farmers almost universally cultivate and harvest the same crops at the same time, using traditional practices.
- The unstructured nature of local and regional markets provides few incentives for farmers to invest additional time, labor, or capital in post-harvest handling or value-added processing at the farm or household level.
- Agribusinesses lack awareness of modern, transparent, market-based ways of doing business.
- The benefit of spillover from large firms to local countries, especially in Laos, is less and not really develop as local government planned.
Labor force situation in the sector

- The commercial on agriculture development requires more skill labor to work on modern factories in order to manage and control new technology to support production.
- The quality and quantity of employment in the sector is limited.
- The growing demand for people in agro-processing is increasing, hence the influx of skilled labor from China and Vietnam is taking place.
- The skilled labor mostly are from Thailand and Vietnam who operate and control the production, especially, technology and machinery, where Lao labors are working as labor support to the factories.
- The shortage of skilled labor is still the main issues in Laos since investors have difficulties in finding available worker to support factories production.
Global value chain challenges

- These SMEs have faced various challenges including access to finance and market saturation (57% of micro businesses and 45% of the small enterprises). These SMEs also consider a lack of product differentiation as their obstacles.

- Participation in ASEAN production and global networks provides Lao firms with access to larger markets, technology, knowledge, and finance as well as diversifying the country’s industrial production and export base.

- However, entering global value chain network is not easy for Laos due to foreign investors seek for firms in the host countries that are capable of joining regional production networks more effectively.

- Local firms need equipping with certain level of human capital (availability of professional managers and skilled labors).
<table>
<thead>
<tr>
<th>Companies mandates and profile</th>
<th>Mode of technology transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mode of knowledge and technology transfer at factory</strong></td>
<td>Dispatch experts in different fields to support local factory</td>
</tr>
<tr>
<td></td>
<td>On-the-job training, field trip</td>
</tr>
<tr>
<td></td>
<td>Experts will train unskilled labors to be skilled labors and become professional staff to administrate the factory.</td>
</tr>
<tr>
<td><strong>Mode of knowledge and technology transfer to farmers</strong></td>
<td>Sugarcane experts will support farm preparation and planting of sugarcane.</td>
</tr>
<tr>
<td></td>
<td>Regular checks by experts taken place at the sight/farm to make sure farmers follow instructions.</td>
</tr>
</tbody>
</table>
# Global value chain and Mode of technology transfer

| Mode of knowledge and technology transfer to farmers | Sugarcane experts will support farm preparation and planting of sugarcane.  
Regular checks by experts taken place at the sight/farm to make sure farmers follow instructions. |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Benefits from transfer technologies to partners   | Reduce the cost of doing business  
Local staff can negotiate with local farmers better than foreign expert  
Support local government strategy, e.g. increase job and reduce poverty  
Upgrade productivity of the firms to meet buyers requirement  
Improve quality of product to compete with competitors and to comply with international requirement |
| Firm chooses their current suppliers as their production partners | Direct from HQ and throughout existing suppliers from rubber business  
Support host country policy in order to increase job creation and social benefit in the province |
Global value chain and Mode of technology transfer

Global network value chains and step of technology transfer of sugar factories in Laos

Local farmers: grow-harvest
Factories’ farms grow-harvest

Sorting and grading sugarcane

Processing – finished product for sale and export

Local markets – retailers

Freight and insurance

Thailand and Vietnam markets – retailers
Head Quarters sugar factories in Thailand and Vietnam

Asean, EU, and UK Markets
Lesson learnt from the study

1. Two firms left local SMEs behind the global value chain or linkage.
2. Local SMEs do not have linkage with global economy.
3. The international investors prefer to use their all suppliers, which they have long-term relationship with head quarters and understand the buyers’ need.
4. SMEs in Laos do not gain much benefit from MNCs spillover. Many current business owners might suffer from vertical integrated investment
5. Farmers will face difficulties to meet agro-industry standards and contractual requirements.
6. Moving ahead of integration in regional and global in the future, small SMEs and processors in Laos increasingly will have to compete with larger scale agriculture manufacturers that can benefit from economies of scale in processing technologies.
FDI brings many advantages to developing country suppliers, access to distribution system in developed countries, knowledge on product development and design, offer good opportunity on transferring of new technologies and the product produced in Laos can gain benefit on brand recognition.

- The technology transfer through FDI can facilitate the process if the country’s capabilities in a certain activity are high enough. Lao government should prepare sufficient competency and skill labors to attract more MNCs to invest in Laos.

- Governments can provide support to improve the performance of value chains targeted to domestic markets that might not alone attract private investment. the government of Laos should think ahead on forward linkage by bringing local processors or lead local firms to participate in the value chain
Conclusion and policy recommendation

- Setting up vocational schools partners with firms can be one of the solutions for government to take into account; the vocational school should produce skill labor based on firms’ standard requirement and demand. Lacking of technical schools will always affect on low labor cost perception in Laos.

- Firm-to-firm matching with technology transfers in the local and global economy takes place at some certain level only. Foreign firms prefer to transfer knowledge at limited level. The spillover of technology and knowledge from foreign firms to local is in small group at headquarter to partnership firms. Government of Laos should push local firms to set up joint venture business with foreign firms in order to receive full spillover from FDI firms to local firms directly.
Q & A

Thank You