I. The Philippine Logistics Industry

The Philippine Development Plan (PDP) 2011-2016, DOLE PJF and the Arangkada Report have identified transport and logistics as a priority sector. Moreover, the PDP has cited the priority creation of an integrated and multi-modal national transport and logistics system.

Transportation and logistics is a main catalyst of economic growth which impacts on other sectors such as agriculture and manufacturing, among others. According to the Department of Transportation and Communication (DOTC), transportation and logistics costs accounted for as much as 43.8 percent of wholesale food prices.

The characteristics of the transport system in the country is basically intermodal in character involving inter-island as well as intra-island movement normally combining air, sea and road transport modes (please see Figure 1). The intermodal transport systems and their connections to the hinterland play a crucial role in the socio-economic development of the widely dispersed regions of the country.

Fig. 1. Intermodal Transport System

![Intermodal Transport System Diagram]

Source: DOTC
The DOTC data for 2006 showed that the predominant mode of transport is by road pegged at 98.14% passenger traffic or approximately carrying 1.71 billion passengers and 25.9 million tons of freight in 2006.

Logistics encompasses an array of essential activities to move goods across borders covering transport, warehousing, cargo consolidation, border clearance, distribution, payment systems. Accordingly, the institutional framework for logistics in the country has always been reviewed in the context of other sectors such as transport and agriculture and not as a logistics sector by itself. Thus, the logistics component has minimal data available.

With the forthcoming ASEAN 2015, increased competition and trade would mean greater movement of goods and services, thus the need for an efficient transportation and logistics system.
The World Bank’s Logistics Performance Index (LPI) survey is a comprehensive index of logistics performance in 155 countries which covers the entire supply chain. It consists of two parts—International and Domestic LPI. The International LPI is based on the assessment of foreign operators located in the country’s major trading partners which measures six dimensions of country performance, namely: 1) Efficiency of the border clearance process; 2) Quality of trade and transport infrastructure; 3) Ease of arranging competitively priced shipments; 4) Competence and quality of logistics services; 5) Ability to track and trace consignments; and 6) Frequency with which shipments reach the consignee within the scheduled or expected time. On the other hand, the domestic LPI is based on logistics professionals’ assessment of the country where they work and contained detailed information in individual aspects of logistics performance such as: 1) Quality of trade-related infrastructure; 2) Competence of service providers; 3) Efficiency of border procedures; and 4) Data on the time and cost of moving goods across borders. The index ranges from 1 to 5, with a higher score representing better performance.

Under the LPI, the Philippines has shown potential growth in logistics with its ranking of 44th place out of 155 countries in its 2010 survey. It has leapfrog from its former ranking of 65th place in the 2007 LPI ranking. In comparison with its ASEAN neighbors, the Philippines performed relatively better but still lags behind Singapore, Malaysia and Thailand.

Table 1: ASEAN Countries Over-all Ranking in the LPI 2010 Survey

<table>
<thead>
<tr>
<th>Country</th>
<th>International LPI Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>2</td>
</tr>
<tr>
<td>Malaysia</td>
<td>29</td>
</tr>
<tr>
<td>Thailand</td>
<td>35</td>
</tr>
<tr>
<td><strong>Philippines</strong></td>
<td><strong>44</strong></td>
</tr>
<tr>
<td>Vietnam</td>
<td>53</td>
</tr>
<tr>
<td>Indonesia</td>
<td>75</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>118</td>
</tr>
<tr>
<td>Cambodia</td>
<td>129</td>
</tr>
<tr>
<td>Myanmar</td>
<td>133</td>
</tr>
<tr>
<td>Brunei</td>
<td>(data not available)</td>
</tr>
</tbody>
</table>

Source: World Bank LPI 2010 survey
Based on the data, the country needs to implement reforms and beef up investments especially in infrastructure where it generated the lowest score at 2.57. The creation of an integrated and multi-modal national transport and logistics system under the PDP is a significant step to catch up with its ASEAN neighbors. The government is on the right track with plans to complete a Logistics Master Plan under the PDP. Accordingly, the Logistics Master Plan will promote sub-regional economic-cum-logistics cooperation and will fully utilize the logistics systems that link the regions traversed by the logistics corridor (e.g., Central Luzon, Metro Manila and Southern Tagalog for the SCMB corridor). Moreover, it is important for the country to learn from the best practices of model countries such as Singapore.

The Supply Chain Management Association of the Philippines (SCMAP) a professional organization of a group of manufacturing companies with over 100 corporate and individual members provided a typical picture of the logistics industry in the country:

- **Logistics providers** (depending on size)
  - Office workers about 50 - 350
  - Warehouse: 500 – 5,000
  - Field (drivers, helpers, etc) up to 4,000
- **Traders**
  - Office: 30 – 50
  - Warehouse: 50 - 300
  - Field: mostly outsourced
II. Employment and Skills Demand

The SCMAP foresees the growth of the industry by 5%-20% in the next 3 years with the following critical positions:

- Forklift & Materials Handling Operators
- Truck drivers that possess the full knowledge of the whole logistics process
- SAP proficient clerical positions (i.e., Encoders, Inventory Clerks, Checkers, Pickers, etc.)
- Demand Planners & Transport Analysts
- Supervisors with leadership abilities
- Safety and Quality Supervisors

Similarly, Toplis Solutions, a local company that provides solutions in the field of warehousing and logistics, promotions and marketing, and manpower services expressed the need to develop training programs for entry level positions such as warehouse personnel and inventory controller among others. Currently, logistics curriculum is integrated in degree courses such as BS in Business Management which is geared towards practicing supply chain management professionals. There is no existing training program offered for entry level positions where the bulk of workers can be found.

Thus, in various consultations with industry associations and government agencies concerned, priority skill/s requirement was determined for the industry using the technique known as the functional analysis.

A functional analysis is part of the industry consultation process. It is a technique used to describe whole industry functions at a level above individual occupations or jobs. It provides an overview on how the sector is organized to deliver its goal (please see Annex A-Functional Map). With the functional analysis map, Warehousing Services was determined as the in-demand skills requirement of the industry.

III. Priority TechVoc Qualifications in the Logistics Industry

Pursuant to TESDA’s mandate of encouraging active participation of various concerned sectors, particularly private enterprises, being the direct participants in and immediate beneficiaries of a trained and skilled workforce, in providing technical education and skills development opportunities (Section 2, RA 7796), industry consultations are conducted with industry association and other concerned stakeholders in identifying the skills demand for a particular industry. In 2013, TESDA has done consultations with SCMAP, DHL Supply Chain and Toplis Solutions to identify the most critical and in-demand qualifications/skills for the industry that need the development of training regulations (TRs). The identified TR for development is Warehousing Services.
The prioritization of the said qualification was approved during the 86th TESDA Board Meeting held on 18 September 2013. This was approved based on the critical need for the said qualification and the employment and investment that it will generate.

IV. Implications to Technical Education and Skills Development

With emerging workplace demands, new set of skills are required in order to perform competently as a knowledge worker. Strategic actions should be undertaken in order to realize the opportunities offered by the industry:

- Expedite the development of the training regulation for the prioritized qualification (Warehousing Services) in the industry
- Review the TR on Heavy Equipment Operation (Forklift) with companies such as DHL Supply Chain to address the new/emerging requirement for skilled workers
- Strengthen TESDA-Industry Partnership especially with SCMAP for the development of TRs for the prioritized qualifications and in the implementation of strategic actions to meet the changing demands in the industry. The partnership will also be in terms of policy and planning, labor market intelligence, training delivery, assessment and certification and financing.
- Once the TRs/standards have been promulgated, TESDA should looked into and pursue enterprise-based trainings like dual training system (DTS) and apprenticeship with the member companies of the industry association.
- Purposively direct scholarships and other training assistance to these critical and hard-to-fill skills requirements/qualifications
- Consistently improve the quality of information and career guidance to students on their career choices and employment opportunities in the industry.
Sources:

Gus Arguelles, “Supply Chain Management Association of the Philippines” (ppt presented at the 15th TESDA Board Direction Setting Meeting Committee, TESDA, Taguig, September 16, 2013).

Supply Chain Management Association of the Philippines (SCMAP) website at www.scmap.org


Alex Imperial, “Project Concept for Certification course on Warehouse personnel” (ppt presented at the TESDA Industry Consultation meeting on May 3, 2013).


ANNEX A
Functional Analysis of the Logistics Industry

Key Purpose

Provide World-Class Warehouse and Transport Services to Clients

Major Function

Provide Storage Services

- Receive Stocks
  - Unload Stocks
  - Check & Verify Stock (moire)
  - Identification of Bin Location
  - Proper Storing
  - Put-away stocks

- Store Stocks
  - Printing of sales order/pick list
  - Check & verify outgoing stocks

- Issue Stocks
  - Identify appropriate MHE depending on stock class

Provide Material Handling Equipment (MHE) Maintenance

- Operate the different types of MHE and understanding of MHE movements
  - Perform basic preventive maintenance
  - Perform refueling/charging procedure of different MHE
  - Comply to MHE safety and damage prevention regulations
  - Perform basic inspection of MHE prior to set-up and shut down
  - Conduct maintenance (check-up of MHE)
  - Comply to material handling safety guidelines
  - Record dock movement within the warehouse/stock by proper use of tools in identifying stocks such as barcode and RFID

- Perform grease processing techniques such as RFID, LIF, or GPS

- Reconcile physical count result versus inventory system

- Perform actual regular cycle count, perpetual inventory, walk-wall

- Regroup of good, damaged and expired stocks

Provide Inventory Management & Control System

- System Inventory Accuracy
  - Perform grease processing techniques such as RFID, LIF, or GPS

- Physical count of Stock Accuracy
  - Conduct daily inspection of bins, racks, shelves, and other storage locations

Provide Facility Management

- Conduct & comply with Good Warehouse Practices
  - Participate in the maintenance of equipment including racking system, lightings, ventilations, pest control, etc.

- Comply with work environment standards (ventilation, temperature, lightings, security, pest control)

- Comply with fire and other emergency response procedures and regulations

- Comply to health & safety program

Provide Transport/Logistics Management

- On time delivery and shipment tracking
  - Load and route planning
  - Conduct truck inspection
  - Monitor & report back shipment movement, status, deployment, transportation locations

- Minimize truck load and verify stock acceptance
  - Implement planned loading configuration

- Retrieve the proof of delivery

Individual Sub-Functions/Core Competencies