

# Unleashing Growth of Logistics and Enhancing Trade Facilitation

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Strategy Paper

# 14

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## I. INTRODUCTION

14.1 The logistics industry forms the backbone of global supply chains and is increasingly recognised as the key to stimulate trade, facilitate business efficiency and spur economic growth. It is also vital to the nation's competitiveness and connectivity to the rest of the world. Although transportation is a core component of logistics, logistics cover a wide range of other areas including storage, warehousing, trucking services and equipment maintenance. In general, logistics is the process of planning, implementing, and controlling the efficient, effective flow of goods and services, and related information from the point of delivery to point of consumption. In Malaysia, the logistics industry is highly fragmented, comprising of many small and medium-sized logistics companies. The logistics activity is either outsourced to professional logistics service providers or performed internally as in-house logistics by manufacturers and distributors.

14.2 Trade facilitation refers to simplification and harmonisation of trade procedures. It also involves improvements in trade related infrastructure and formalities in collecting and presenting data or information required for the movement of goods in international trade. Trade facilitation and logistics play a crucial role in moving goods and services from the point of production to point of delivery, domestically and across borders. Given that the economy relies heavily on international trade, freight flows between nodes must be efficient, seamless and competitive.

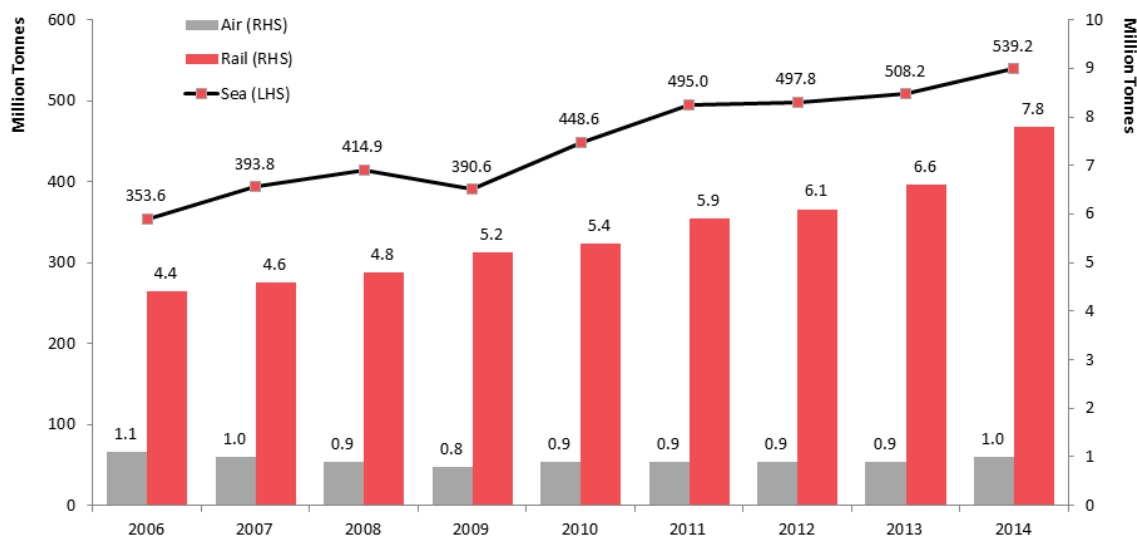
14.3 The Eleventh Malaysia Plan, 2016-2020, emphasises on creating seamless connectivity for people and goods. Within the logistics industry, focus will be given to developing integrated logistics and enhancing trade facilitation mechanisms. Strategies that will be undertaken include strengthening institutional and regulatory framework, enhancing trade facilitation mechanism, building freight infrastructure efficiency and capacity, deploying technology in the logistics chain and strengthening capabilities of logistics service providers.

## II. TENTH MALAYSIA PLAN, 2011-2015: PROGRESS

14.4 During the Tenth Malaysia Plan, 2011-2015, the average annual growth rate of the services sector was 6.3%, contributing 53% to the gross domestic product (GDP). The transport and storage, which is a component of the services sector, grew at an average rate of 5% per annum. In 2014, the transport and storage subsector contributed about 3.6% or RM30 billion to the GDP, and 6.5% to the services sector value-added. The share of transport and storage subsector to GDP from 2005 to 2014 was stagnant between 3.6% and 3.7%.

14.5 Total trade in 2014 was RM1.45 trillion or 174.9% of GDP, a 5.9% increase as compared to 2013. During the same period, total freight volume transported by sea, rail and air reached 548 million tonnes, a 6.6% increase as compared to 2013, as shown in *Exhibit 14-1*. Sea freight is the preferred choice due to its lower cost and ability to handle bulky shipments. The total freight volume transported by sea in 2014 was 98.4% or 539.2 million tonnes. Ports that contributed significantly to shipment of goods were Port Klang, Port of Tanjung Pelepas, Penang Port, Kuantan Port, Johor Port and Bintulu Port. The annual growth rate between 2005 and 2014 for sea freight volume was 5.4% and the growth momentum is expected to continue until 2020 at 5.6%.

*Exhibit 14-1*  
**Sea, Rail and Air Freight Volume, 2006-2014**



Source: Ministry of Transport

14.6 The land freight movement comprises rail and road transport. Rail freight achieved steady growth with an annual growth rate of 7.3% between 2005 and 2014, and recorded 7.8 million tonnes in 2014. Containerised cargo, cement and clinker were the major commodities transported by rail. Road transport continues to play a key role in providing last-mile connectivity to and from entry and exit points, and for domestic distribution. In 2014, 1.2 million heavy vehicles were registered, indicating its contribution to road freight movements.

14.7 The total air freight volume in 2014 was 987,362 tonnes, of which 91.2% was handled by the Kuala Lumpur International Airport (KLIA), Penang Airport, and Subang Airport. The annual growth rate between 2005 and 2014 declined by 0.8%. Major factors contributing to this decline were limited connectivity and frequency of air cargo flights, low cargo volume as well as competition from neighbouring countries.

14.8 Malaysia ranked 25 out of 160 countries in the World Bank Logistics Performance Index (LPI) Report 2014 and attained top position among the upper middle-income countries. Other indicators namely total air freight, sea container traffic volume and the Liner Shipping Connectivity Index were also used to evaluate logistics performance against neighbouring countries, as shown in *Exhibit 14-2*. In 2013, air freight transport stood at 1,991 million tonnes-km, behind Hong Kong, Singapore and Thailand. In terms of container port volume, Malaysia is relatively better than Indonesia and Thailand, but behind Singapore and Hong Kong. The Liner Shipping Connectivity Index, which captures how well countries are connected to global shipping networks, ranked Malaysia after Singapore and Hong Kong.

*Exhibit 14-2*  
**Regional Logistics Performance, 2013**

| Indicators                               | Malaysia | Singapore | Hong Kong | Indonesia | Thailand |
|--|----------|-----------|-----------|-----------|----------|
| Air freight transport (million tonne-km) | 1,991    | 6,513     | 9,499     | 959       | 2,644    |
| Air freight volume (million tonnes)      | 0.9      | 1.8       | 4.1       | 1.5       | 1.5      |
| Container port traffic (million TEUs)    | 20.8     | 32.6      | 22.4      | 10.1      | 7.9      |
| Liner Shipping Connectivity Index        | 98.2     | 106.9     | 116.6     | 27.4      | 38.3     |

Notes: 1. Air freight transport is the volume of freight carried on each flight stage, measured in metric tonnes multiplied by kilometres travelled

2. TEUs: twenty-foot equivalent units

Source: World Bank Database

### III. ISSUES AND CHALLENGES

14.9 During the Tenth Plan, there was a significant increase in freight movement for land and sea transport. Despite the positive growth and potential of the logistics industry, it remains mired in several complexities and challenges. The issues in logistics and trade facilitation can be summarised under key categories, namely institutional and regulatory framework, infrastructure, human capital as well as technology adoption.

## Institutional and Regulatory Framework

14.10 Issues in the institutional and regulatory framework are related to lack of coordination, inefficient and insufficient regulations as well as lack of data management. The coordination issues in the logistics sector are attributed to the overlapping functions of agencies and presence of institutional gaps. Off-dock depots and ordinary warehouses are poorly regulated and inefficient. In addition, the database for land freight is fragmented and this impedes effective planning and development of the sector.

### ***Lack of Coordination***

14.11 Agencies involved in the planning and development of the logistics industry are the Economic Planning Unit (EPU), Ministry of International Trade and Industry (MITI), Ministry of Transport (MOT), Ministry of Works (MOW), Royal Malaysian Customs Department (JKDRM) and the Land Public Transport Commission (SPAD). The role of MOT as the lead agency which coordinates, plans, develops and oversees the land transport, aviation and maritime subsectors, needs to be strengthened. In addition, the absence of lead agencies to oversee other logistics activities such as container depot, freight forwarding and warehousing further hinders orderly development of the logistics industry.

14.12 The Malaysian Logistics and Supply Chain Council (MLSC) was created in 2009 to address coordination issues and provide a platform to deliberate and propose policy decisions affecting the logistics industry. However, this Council was proven to be ineffective with insufficient policy guidelines to manage the industry.

### ***Long Approval Period for Heavy Vehicle Registration***

14.13 The existing process to obtain a heavy vehicle licence takes three to five months and requires interaction with four agencies namely, the respective local councils, *Pusat Pemeriksaan Kenderaan Berkomputer* (PUSPAKOM), Road Transport Department (JPJ) and SPAD. The main bottleneck is in the process of obtaining referral letters for parking facilities from local councils which takes approximately two months. There is an overlapping of functions between PUSPAKOM and JPJ in the inspection and approval process for *Pelan Teknikal Kenderaan* which takes approximately three weeks. In addition, separate approvals from JPJ are required for vehicle registration and issuance of road tax, whereby JPJ registers vehicles before SPAD approves the operating licence, but issues road tax only after approval from SPAD.

### ***Lack of Regulation for Off-dock Depots***

14.14 There are two types of depots; the on-dock and off-dock depots. The on-dock depot facilities provide the avenue for main shipping lines and feeder operators to store their empty containers within the terminal to cater for both transshipment and local demand. These depots are regulated by the respective port authorities. Meanwhile, the off-dock depots are facilities located outside the ports which offer storage facilities for empty containers. Although the local councils issue business licenses for off-dock depots, there is lack of guidelines on standards, location details, safety and security of these facilities. In addition, discriminate charges imposed by off-dock depot operators on the hauliers is also an issue. These issues have resulted in high inland transportation and handling cost.

### ***Poor State of Ordinary Warehouses***

14.15 Warehouses provide support to local and foreign businesses that requires services such as freight management, inventory control, storage and packaging. The bonded warehouses are generally well managed and fall under the purview of the JKDRM. These are for storage of goods on which customs duties and taxes have not been paid. The ordinary warehouse is licensed by the respective local councils. However, the facilities provided at these warehouses are not monitored. In addition, the requirements, fees and categorisation differ among the local councils causing difficulties and higher cost of doing business for investors. There is also minimal information on warehouses which are readily available to users. This includes information pertaining to location, type, space and size, utilisation rate and operators, which are important for logistics planning and decision-making.

### ***Fragmented Database for Freight Sector***

14.16 There is inadequate monitoring of the different types of commodities which move through the road and rail freight systems. The origin-destination (O-D) flow matrix by commodity is a vital indicator that assesses O-D pairs for road and rail freight and currently this is not readily available. This information is important to gauge infrastructural requirements in changing the mode share of road and rail freight and to allow effective and strategic land freight planning.

## **Inefficient Processes and Procedures in Cargo Clearance**

14.17 Involvement of multiple permit issuing agencies (PIAs) and requirement for manual documentation during cargo clearance causes delays in import and export processes. Some PIAs are not stationed full time at the entry points due to higher operational cost and low volume of cargo that requires approval from them. This entails the need for importers and exporters to visit relevant PIA offices to complete the documentation process. Another area of concern is the variations in customs practices and procedures at different entry points. This is mainly due to the different interpretation by the officer-in-charge which increases the complexity of the cargo clearance process.

## **Inefficient Transport Arteries and Hubs**

14.18 The key constraints in the logistics industry are poor last-mile connectivity to major entry points, inadequate facilities at key terminals as well as inefficient transport services. These lead to delays and damage of goods which increase handling and transportation costs. As a result, importers and exporters prefer to use ports and airports in neighbouring countries which offer better connectivity and reliable service.

### ***Inefficient Last-Mile Connectivity to Port Klang***

14.19 The increase in the volume of international trade using containerisation led to the rapid growth of container traffic at Port Klang, which resulted in higher traffic congestion in the roads connecting to the port. Findings from the Study on the Rail-Road Integration in Port Klang showed that 15% of roads in the network require urgent reconstruction. Some of the critical stretches are Jalan Kem, Jalan Parang, Jalan Pelabuhan Utara, Jalan Selat Klang and several sections along Pulau Indah Highway. The study also showed that 32% of roads leading to Port Klang need rehabilitation. These roads have poor pavement condition and surface drainage system with inadequate road furniture and signage. Due to the frequent plying of overloaded heavy vehicles, most of these roads are filled with potholes, posing safety hazards.

14.20 Although the rail network to and within Port Klang is available, it is currently inadequate. Only 5% of cargo movement within Port Klang uses rail transport. The rail service between Northport and Westport is limited in frequency and capacity. Hence, trucks are preferred to haul cargo due to their flexibility in terms of time and weight, and door-to-door service. In addition, the rail network from the northern and southern regions to Port Klang is congested and freight is not allowed into Klang Valley at peak times. Hence, the bypass proposal from Serendah to Port Klang needs to be reconsidered.



### ***Insufficient Cargo Facilities at Padang Besar Terminal, Perlis***

14.21 Cargo from South Thailand to Penang Port, mainly rubber products, is transported through Padang Besar by rail and road, of which the rail cargo captures 35% of total volume. Although the South Thailand cargo was identified as the most profitable trip for Keretapi Tanah Melayu Berhad (KTMB) and contributed one-third of cargo revenue, the cargo growth has been stagnant for more than four years. Currently, the total amount of containers from South Thailand is 33,000 twenty-foot equivalent units (TEUs) a month but KTMB can only handle 10,000 TEUs a month due to limited capacity in yard facilities and train services.

### ***Bottlenecks at Penang Port***

14.22 The Northern Corridor Economic Region Socio-economic Blueprint (2007-2025) has identified Penang Port as the leading port in the northern region and premier Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT) port. With its strategic location, Penang Port should ideally be able to take advantage of its proximity to Sumatera, Indonesia and Thailand to gain access to raw materials and finished products which will be processed or exported through the port. However, the potential is not fully realised due to several constraints at the port, which include limited channel depth to attract large vessels, limited wharf length, inefficient cranes and limited direct sea connectivity to major destinations.

### ***Bottlenecks at Airports***

14.23 International airports in Kota Kinabalu, Kuala Lumpur, Kuching, and Senai have the potential to increase air cargo volume but are hampered by inefficient regulatory processes and insufficient cargo facilities. Senai Airport has the potential to serve large-sized cargo for the oil and gas sector in the region and as the main gateway for Iskandar Malaysia. However, currently the Senai Airport Terminal Services Sdn. Bhd. has to deal with long approval periods for foreign freighters landing permits. As a result, cargo is trucked to Singapore or barged to Batam, Indonesia for delivery to their final destinations.

14.24 The air freight sector in Sabah has high potential to grow in exporting agricultural produce, particularly aquaculture products, whereby Semporna and Kuala Penyu have been identified as Integrated Agro Marine hubs. However, existing cold chain facilities are inadequate to ensure fresh produce reach export markets within the stipulated time. In addition, freighter service from the Kota Kinabalu International Airport is limited to only once or twice a month.

14.25 The KLIA and KLIA2 lack cargo facilities, mainly staging areas to facilitate air shipment through belly cargo. The current layout of the airport is not optimal because of the distance between the cargo warehouse in the former low cost carrier terminal and the satellite

terminal, which is three kilometres to KLIA and 10 kilometres to KLIA2. The absence of staging areas in the satellite terminals to temporarily store the cargo in a temperature controlled environment often results in the damage of heat sensitive goods such as pharmaceuticals and perishable food items.

## Shortage of Skilled Human Capital

14.26 The transformation of the logistics industry from a modal service sector into an integrated transport and logistics services sector has widened the skills gap in the industry. The industry lacks new skills in the area of supply chain network design, integrated warehouse management, information technology application and sophisticated crane operations.

14.27 One of the most pressing issues in logistics is the shortage of skilled truck drivers. There is lack of interest in the job, primarily due to relatively low pay and lack of social recognition. The application for the goods vehicle driving licence is also a lengthy and costly process which discourages potential drivers. Currently, the ratio of driver to goods vehicles is at 1:1.5, and this affects business productivity. This issue is further aggravated with the outflow of local trained and experienced drivers to other countries which offers higher salary and better working conditions.

## Inadequate Technology Adoption

14.28 The usage of electronic documentation is widely promoted but the requirement for printed document is still prevalent. Printed customs forms and invoices have to be produced when transiting the borders despite submission through the Customs Electronic Data Interchange (EDI). While JKDRM deems that this is necessary for safety and security reasons, the industry players view this as a bureaucratic process that affects efficiency. In addition, there is limited electronic platform to integrate the various industry players, except for the Port Klang Net by the Port Klang Authority.

## IV. ELEVENTH MALAYSIA PLAN, 2016-2020: MOVING FORWARD

14.29 The aspirations for the logistics industry in the Eleventh Plan are to:

- resolve the fundamental issues constraining the growth and efficiency of the logistics industry
- position Malaysia strategically in the region as a 'Preferred Logistics Gateway to Asia' by creating an integrated logistics coupled with efficient trade facilitation

14.30 In line with the aspiration to become an advanced economy and inclusive nation, the target is to increase the contribution of the transport and storage subsector to GDP from 3.6% to 4% by end of the Plan period. This entails the need for the subsector to grow 8.5% annually in order to achieve a contribution of RM55.8 billion. In terms of employment, the transport and storage subsector is expected to generate an additional 146,000 jobs, which are mainly high-skilled, by the end of 2020.

## **Potentials for the Logistics and Trade Facilitation**

14.31 Malaysia is strategically located in the region, in the middle of international sea trade routes, serving one third of the world's population, namely People's Republic of China, India and Indonesia. With such advantage, Malaysia has the potential to further grow the sea and air freight sector. This is strengthened by the realisation of the ASEAN Economic Community (AEC), which will provide stimulus for the logistics industry to develop further.

### ***Rise in Containerised Cargo at Port Klang***

14.32 Port Klang, strategically located in the Straits of Malacca is the 13<sup>th</sup> busiest container port in the world. In 2014, Port Klang handled 10.9 million TEUs, an increase of 13.9% as compared to 2010. Almost 63% of the port's container throughput was transshipment. Moving forward, investment in port infrastructure is required to attract mega vessels, and this has to be supported with efficient cargo handling at the port and good hinterland connectivity. This will enable Port Klang to achieve 16.4 million TEUs in 2020.

### ***Potentials for Rail and Air Freight***

14.33 In 2014, total rail cargo throughput in Malaysia reached 7.8 million tonnes, with 30% of freight volume from South Thailand. The completion of the Ipoh-Padang Besar Electrified Double Track Project will increase the rail capacity and is expected to boost rail freight to achieve average annual growth rate of 9.2% during 2014-2020 period. This enhances the opportunity to further grow the rail freight sector and promote modal shift from road to rail.

14.34 KLIA handled 76.3% or 753,900 tonnes of total air cargo volume in 2014, which is far below the original projection and cargo capacity of 1.2 million tonnes. This suggests significant potential to grow the air freight sector in KLIA. Concerted effort will be undertaken to boost KLIA as the preferred gateway for air cargo from domestic and neighbouring countries.

## ***ASEAN Economic Community***

14.35 The establishment of the AEC is envisaged to build a stronger market with an integrated production and manufacturing network. As ASEAN prepares to become the world's next manufacturing hub, it is expected to provide stimulus for Malaysia's logistics industry. The AEC is projected to generate demand for door-to-door multimodal transport, integrated logistics services and e-commerce network. With the realisation of its goals, ASEAN is projected to be an attractive trade destination, boosting Malaysia's involvement in international trade.

## ***E-commerce will be the Driver of Growth***

14.36 ASEAN's e-commerce market value currently stands at US\$1.1 billion. In Malaysia, the share of e-commerce to GDP was 5.2% or RM48.6 billion in 2012 and increased to 5.4% or RM53.5 billion in 2014. The growth recorded was 10% and is expected to further increase during the Plan period. To tap the potential of this market, there is a need to build stronger logistics network to facilitate efficient delivery and distribution. The increase in online retail will increase demand for smaller parcels, more frequent shipments and smaller modes of last-mile transport. Retailers are likely to minimise cost by reducing storage and inventory stocks, resulting in higher demand being placed on the supply chain for just-in-time deliveries.

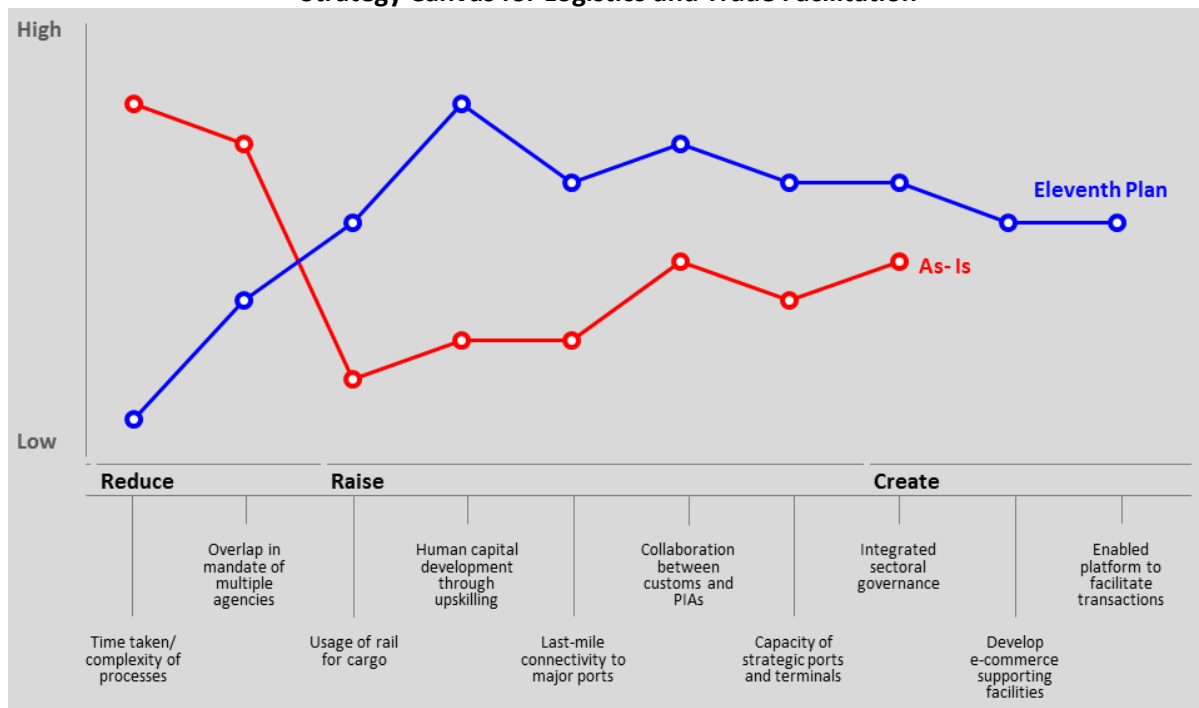
## **Strategies**

14.37 In order to achieve the set targets, a pragmatic approach will be adopted in developing the logistics industry and facilitating trade by undertaking the following five strategies:

- Strengthening institutional and regulatory framework
- Enhancing trade facilitation mechanism
- Building freight infrastructure efficiency and capacity
- Deploying technology in the logistics chain
- Strengthening capabilities of logistics service providers

14.38 The strategies above will be implemented through the initiatives as shown in *Exhibit 14-3*.

Exhibit 14-3:  
Strategy Canvas for Logistics and Trade Facilitation



## Strengthening Institutional and Regulatory Framework

14.39 A dynamic and supportive institutional environment is important to shape and develop the logistics industry. The initiatives outlined are aimed at strengthening the institutional structure and simplifying or streamlining the regulations. This will help reduce inefficiencies, duplications and inconsistencies.

### Strengthening Governance

14.40 The governance and institutional mechanism with respect to the overall coordination of the logistics industry and specifically for off-dock depot management and ordinary warehousing will be addressed, as follows:

- MOT will be tasked to champion the development of the logistics industry. The National Task Force on Logistics will be formed with the Minister of Transport spearheading the implementation of the Logistics and Trade Facilitation Masterplan. This task force will report to the Special Committee for Services Sector chaired by the Prime Minister
- SPAD will be given mandate and capacity to ensure orderly development and regulation of off-dock depots through licensing and standard guidelines. A centralised container management system will be established to enhance the efficiency of cargo operations. An organised off-dock depot management will help to decongest the ports and deliver efficient cargo operations at competitive cost. In

addition, SPAD will also undertake a study to map the origin-destination flow matrix by commodity for road freight

- MOT will be tasked to play a lead role in developing and monitoring warehouses. It will collaborate with the Ministry of Urban, Housing and Local Government (KPKT) to develop standards and specifications for warehouses, identify suitable locations, improve processes for approval and develop the national warehouse inventory website that manages information on the warehousing segment. An orderly development of warehouses will open up opportunities for Malaysia to be the distribution centre for the ASEAN region, particularly for goods purchased online and courier services

### ***Simplify and Streamline Regulations***

14.41 Regulations will be simplified and streamlined to improve efficiency and reduce cost. Efforts will be focussed on the following:

- Commercial vehicle registration will be improved to reduce approval period from 5 months to 1 month. Among the measures that will be undertaken include:
  - Shortening processing time for obtaining offer letter for carrier licence from SPAD by eliminating the need to obtain referral letter for parking facility from the local authorities
  - Streamlining approval process for *Pelan Teknikal Kenderaan* by JPJ and PUSPAKOM
  - Combining approval procedures for vehicle registration, operating licence and road tax by SPAD and JPJ
- The advanced notice requirement and processing time for application of landing permits for non-scheduled civil flights will be shortened. This initiative which will be undertaken jointly by the Department of Civil Aviation and MOT will increase air freight volume and reduce leakage to neighbouring countries
- The axle-load for container hauliers and conventional trucks will be reviewed to enhance vehicle utilisation. In addition, the provision for interchangeability of prime movers for different trailers, particularly for non-container cargo, will be assessed to increase road freight efficiency

### **Enhancing Trade Facilitation Mechanism**

14.42 Trade facilitation mechanisms will be enhanced by improving the cargo clearance process, strengthening security features of trade documents and promoting paperless transactions. Efforts will be focussed on the following:

- Collaboration between PIAs and JKDRM will be strengthened to shorten cargo clearance processing time without compromising security. This initiative will be led by the Special Task Force to Facilitate Business (PEMUDAH) with Malaysian Productivity Corporation as secretariat
- The security of the health certificates will be enhanced with better features and standards to ensure only genuine documents are used. The security and quality of health certificates by the Ministry of Health for food export, will be improved by including optical watermark. The optical watermark has security features that prevent counterfeit copies and allow customers to print original certificates without having to be present at the PIAs
- Paperless transaction promotion program will be driven through u-Customs to encourage industry players and PIAs to gradually reduce manual exchange of hardcopy documents. The u-Customs initiative, which will be implemented in 2016, aims to improve the efficiency of customs services and facilitate compliance with standards through a single electronic system that is safe, fast, transparent and customer-friendly

## Building Freight Infrastructure Efficiency and Capacity

14.43 Logistics infrastructure will be developed by focussing on the following key areas, namely, improving last-mile connectivity to Port Klang, upgrading Padang Besar terminal, promoting modal shift from road to rail, improving cargo facilities at airports and provision of parking facilities.

- The last-mile connectivity to Port Klang by road and rail will be enhanced to cope with the increase in container volume. The priority will be on upgrading the rail link between Westports and Northport to reduce congestion on existing roads, particularly at Jalan Parang-Jalan Pelabuhan Utara-Jalan Kem. Critical stretches along Jalan Pelabuhan Utara and Pulau Indah Highway will be upgraded. The usage of a traffic information system will be promoted to better manage traffic around Port Klang. The Port Klang Authority will oversee the planning and development of cargo hubs at strategic locations to provide shared logistics facilities and reduce cargo handling at the port
- The Padang Besar terminal will be expanded to capture the potential growth in cargo volume from South Thailand, which is anticipated to reach an annual volume of 245,000 TEUs by 2020 from 120,000 TEUs in 2014. Among the measures include expanding the yard for container stacking area and load-on/load-off space. To enable efficient movement of cargo from the terminal to Penang Port, KTMB will improve its cargo handling capacity by increasing frequency of train services to achieve the desired modal shift from road to rail

- The cargo handling facilities and freighter service at the Kota Kinabalu International Airport will be upgraded based on demand to support the export of agricultural produce, particularly aquacultural products. In addition, the need for cargo facilities, such as cool ports and staging areas to consolidate and facilitate cargo movement at KLIA and KLIA2, will be reviewed. In addition, the former low cost carrier terminal site will be transformed into a regional cargo hub
- Freight hubs will be developed using a public private partnership model at strategic locations, such as along the North South Highway, periphery of cities and adjacent to ports and airports. These facilities can operate as a hub and spoke system, whereby larger trucks are parked and distribution to the cities and rural areas are carried by smaller trucks. These hubs will also provide other services such as cleaning, repair and maintenance services for heavy vehicles as well as rest and refreshment facilities for drivers. In addition, a public private partnership model for rail operations and asset management will be explored to enhance the efficiency of cargo rail services

## Deploying Technology in the Logistics Chain

14.44 ICT will be leveraged to provide seamless movement of goods and services to enhance logistics and trade facilitation as well as to facilitate e-commerce. Efforts will be channelled towards providing timely traffic information to truck drivers, promoting virtual selling platforms, develop fulfilment centres and encourage urban logistics.

- In order to provide timely traffic information to truck drivers, telematics equipment to capture traffic data will be installed at selected routes in the vicinity of ports and airports. The traffic data will be transmitted to the trucking companies which will then provide the traffic information to the truck drivers. This will help truck drivers to better plan their routes and avoid congested roads
- Virtual selling platforms, which adopt e-commerce features, will be promoted to match logistics supply and demand. These platforms will enable the logistics service providers to publish rates and availability of services to users. The logistics service providers will also have the advantage of optimising their assets and users will be able to take advantage of the offered services and pricing. This will encourage fair competition and transparency in the services provided
- Fulfilment centres at strategic locations will be provided for SMEs to encourage online retail. In addition, state-of-art fulfilment centres will be developed to attract big foreign online merchants such as Amazon and eBay. Incentives will be designed for logistics service providers and SMEs to ensure effective operations and usage of these centres
- The National Logistics Task Force will undertake initiatives to promote urban logistics, among others, through greater adoption of ICT, fleet management as well as hub and spoke system for efficient distribution



## Strengthening Human Capital Development

14.45 Human capital development will be strengthened by building capacity, reviewing salary packages for drivers and introducing accreditation for logistics service providers.

- The on-the-job training for professionals in logistics will be intensified to further develop their expertise and skills. In addition, logistics courses offered in universities and training academies will be reviewed with industry input to match industry demand. Universities and local training academies will be encouraged to offer upskilling programmes to the existing workforce
- To address the insufficient numbers of qualified goods vehicle drivers, the requirements for goods vehicles licence, salary packages and training programmes will be reviewed
- Rating standards and accreditation of logistics service providers will be introduced to certify companies that comply with regulations and standards, as well as emulate best practices such as green logistics and IT adoption. Accreditation will be made a requirement for companies to obtain incentives

## V. CONCLUSION

14.46 The five main strategies outlined are based on the need to increase cargo volume and exports through local ports and airports, as well as to enhance the ease of doing business. The strength of the logistics sector will be one of the key determinants of the pace of future growth of the economy. Going forward, it is envisaged that logistics will be further leveraged by other sectors such as manufacturing, agriculture, oil and gas, wholesale and retail towards improving productivity and increasing trade activities.