IV. COMPREHENSIVE POLICY FRAMEWORK FOR LOGISTICS: NATIONAL LOGISTICS STRATEGY

The previous chapters have highlighted the increasing complexity of the logistics industry and the expansion of the role of logistics service providers. Both industry and the government need to re-evaluate their approach to the logistics sector to ensure an effective and supportive institutional environment. In particular, there is a need for a unified approach to logistics policy to reduce inefficiencies, duplication and inconsistencies. While it may be easy to determine a responsible agency for companies operating exclusively in transport, logistics is no longer a matter for one agency alone but rather requires the cooperation of many government stakeholders and representatives of the private sector. The following two chapters discuss two aspects of coordination of policy: firstly, a national logistics strategy, and secondly a national logistics coordination mechanism to support and implement the strategy. Together, they form a comprehensive policy framework for the development of the industry in the short, medium and long term.

A. Examples of Coordination of Policy

1. China

In China, the national logistics strategy is the responsibility of the Ministry of Transport, restructured in 2008. In addition to planning policies and standards, the Ministry also supervises the implementation of plans. To support the implementation process, a national inter-ministry conference on logistics brings 15 relevant agencies together once or twice per year.

Directing the work of the national government is the Five-Year Plan, the current (12th) Plan covering 2011-2015. While the Plan includes economy-wide social and

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economic policies, it also indicates the priorities of the Ministry of Transport. The 12th Five-Year Plan includes a specific reference to the development of a “social, professional, information-based modern logistics system”. Separately, the Plan mentions the development of third-party logistics, integration of logistics resources, enhancement of logistics infrastructure, increased efficiency and reduced logistics cost. In addition, the Plan promotes the development of regional distribution systems and logistics clusters.

The Plan aims to create an enabling environment for exports. To achieve this, it recognizes the linkages between logistics and other industries by promoting agricultural products, bulk mineral products, key industrial areas and “other fields important to the development of logistics”. The logistics industry also benefits in other ways, in particular through the optimizing of the policy and functions of the customs agency. Additionally, the logistics industry itself is recognized as an international service with the potential to trade globally and earn foreign exchange for the country.

A key aspect, which combines the development of logistics infrastructure and increased efficiency, is the support for increased intermodality. Ports, freight stations and logistics parks are recognized as priority areas for upgrading and expansion, with increasing focus on the coherence of the logistics network. In addition, specific efforts are made to support services such as roll-on/roll-off transport, direct transport between river and sea, and sea-rail combined container transport. The “software” to increase efficiency is the enhancement of services relating to customs formalities, insurance, and commodity inspections, in addition to other services.

To support “information-based” logistics services, the Ministry is accelerating the establishment of a public information platform for the logistics industry. A significant component of the integration of various logistics information systems is the development of basic data standards and data exchange specifications. In addition to extensive technical work, the introduction of such standards requires the introduction of appropriate supporting and guiding policies.
Standardization is also promoted in other aspects of logistics services through a standardization programme. In cooperation with other relevant agencies, the Ministry is revising and drafting industry standards, carrying out outreach and training activities, and introducing measures to encourage enterprises and government agencies to adopt the relevant standards. In its role as supervisor of the industry, the Ministry is developing a quality and credibility assessment system for enterprises and employees for enhancing professional standards. In addition, the standards for entry and exit to the industry are being revised.

The Five-Year Plan emphasizes the need to develop the capacity of third party logistics companies and modernization of logistics services. As a response, the Ministry is introducing measures for the establishment of large-sized port groups and third party logistics companies. Transport companies and intermediary service providers are encouraged and guided to expand operational scope and work on brand building. The support for enhancing outsourcing in the industry can also strengthen the development of third party logistics providers. To support the long term development of the industry, the Ministry is also promoting the technological advancement of logistics industry.

2. Indonesia

The Indonesian National Logistics Blueprint sets out the roadmap for the development of the industry by government, local and provincial authorities and the private sector over the period 2011-2015. The national logistics strategy was formulated through the cooperation of a range of experts and practitioners, including relevant ministries and government agencies, private sector (through associations), international institutions and academics. The final output, the Blueprint of the Development of the National Logistics System, was approved in March 2012.

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The key drivers for the development of the Blueprint were the need to enhance the logistics competitiveness of Indonesia and to improve the readiness of the country for the increasing integration expected from various strategies under the Association of Southeast Asian Nations (ASEAN), in particular the ASEAN Economic Community which is scheduled to come into being in 2015. Major logistics problems included lack of clarity over the most important commodities, poor state of infrastructure, poor human capacities in the logistics industry, limited use of information and communication technology (ICT), regulatory barriers and lack of institutional coordination and capacity.

As a result, the Blueprint identifies six key drivers for logistics: human resources, ICT, logistics service providers, infrastructure, harmonization of regulation and policy, and key commodities. The identification of key commodities supports the prioritization of infrastructure development for each region and enhances the impact of infrastructure improvement, visible in indicators such as ship turnaround times and transit times, population reached by ferry, average speeds and total value of damaged goods. Improvement of regulation and policy can also decrease the time and cost spent on transport. In addition, strong institutions reduce uncertainty around return for investment on infrastructure projects, which can promote further improvement of logistics networks. Cost reductions in logistics are further targeted through measures to improve human capacity, promotion of ICT applications and the development of logistics service providers.

Due to Indonesia’s archipelagic geography, the logistics network also has a strong social aspect. Integration at the local and national levels (between islands) is a key for improving social welfare and ensuring delivery of basic public goods. From the global perspective, better connectivity through reduced logistics cost is also identified as a key determinant of national competitiveness, and as a component of integration within the ASEAN community. The enhancement of all the key drivers contributes to the vision of the Blueprint, “locally integrated, globally connected for national competitiveness and social welfare.”
The measurement of progress in the implementation of the Blueprint is set out in terms of logistics cost as a percentage of gross domestic product (GDP) and the Logistics Performance Index (LPI), with milestone targets in 2015, 2020 and 2025. In Phase I, a foundation is established for the national logistic system, focusing in particular on local connectivity. Priority is given for regulatory revision, development of human capacity through standardization and accreditation, and improvement of infrastructure, with particular focus on key economic centres. In Phase II, the focus is shifted to regional connectivity and integration with ASEAN logistics networks, with the special aim of developing a nationwide integrated logistics information system. An international certification system is also planned for logistics service providers. In Phase III, further integration of the network is designed to support intermodal transport, and the logistics system is connected to the global logistics network. In this way, each Phase is built on the previous one, with focus being on setting up conditions for the next stage. (The phases are presented in Figure 2.)

Figure 2. The Indonesian National Logistics Blueprint, by phase

The implementation structure is discussed in more detail in Chapter V.

3. Malaysia\textsuperscript{7}

The national logistics plan of Malaysia is incorporated into the Third Industrial Plan for 2006-2020, coordinated by the Ministry of International Trade and Industry, which includes logistics as a priority industry. Preceded by an in-depth analysis of the current state of the logistics industry, the Plan then sets out clear targets based on the expected increase in total merchandise trade, in terms of million tonnes of total marine cargo, air cargo trade and cargo volume by rail freight from 2005 to 2020. This is to be achieved through six strategic thrusts.

\textit{(1) Creating an efficient and competitive logistics industry to support Malaysia’s industrialization efforts;}

An efficient and competitive industry is created through the encouragement of capacity building and adopting new practices in the industry. Specifically, the plan mentions the enhancement of operations to cover the whole supply chain (door-to-door), the establishment of a professional accreditation body, and a shift in trading practices to exporting on CIF basis and importing on FOB basis.\textsuperscript{8} As a further measure to support the industry, government-linked companies are encouraged to use the services of domestic logistics firms for international trade. Assistance is provided to logistics companies looking to expand their capacity and activities through mergers and acquisitions, and the building, repair and upgrading of Malaysian ships. Port terminal operators are encouraged to extend port charge discounts to freight forwarders and non-vessel operating common carriers which are involved in value-added activities.

At the same time, opportunities to build capacity through foreign partners are recognized. A higher level of foreign equity is allowed for certain logistics service

\textsuperscript{7} Based on “Third Industrial Master Plan (IMP3) 2006 – 2020” (available through: http://www.miti.gov.my/cms/content.jsp?id=com.tms.cms.article.Article_8e595aba-7f000010-72f772f7-733da6e4).

\textsuperscript{8} Cost, insurance and freight (CIF), Free on board (FOB)
companies, such as container shipping companies offering intermodal integrated door-to-door services, non-vessel operating common carriers offering services to small shippers, and 3PL and 4PL companies. The purpose of this measure is to encourage multinational companies to include Malaysia in their global supply chain, thus offering more opportunities for the domestic industry. Shipping companies are also encouraged to form strategic alliances with foreign enterprises.

Special attention is also paid to the international links of Sabah and Sarawak, with initiatives to improve the infrastructure to allow them to act as regional hubs, and opening entry to foreign shipping companies and logistics service providers to expand the transport services available and to enhance growth in cargo volumes to and from the two regions.

(2) Developing the industry in particular transport modes to operate in a competitive international environment;

Within the transport sector, multimodal transport modes, national transport corridors and inland waterways are highlighted. This is to relieve pressure from the congested road network and to enhance linkages to distribution parks and other infrastructure. The existing plan for the national rail network will be reviewed to include development of integrated terminal facilities in various locations and improvement of intermodal linkages. The potential of inland waterways in areas with large rivers will also be explored.

Initiatives to promote intermodality are planned to be private sector driven, with the cooperation of Malaysian Railways. An assessment will be carried out to consider the expected impact on road haulage companies and design mitigation measures if required.
(3) **Expanding and upgrading the capacity of the industry to enhance its participation in global supply chains;**

The participation of the domestic industry in global supply chains is supported through several measures. The national transport corridors identified in the strategic thrust 2 and strategic logistics centres are to guide the selection and promotion of growth areas such as inland depots, specialized warehousing facilities, regional logistics operators and virtual logistics hubs. Port and airport operators are encouraged to form international alliances and to expand operations globally. For 3PLs and 4PLs, support can be provided for exploring export opportunities and outward investment. On the institutional side, regulations and rules are being harmonized and streamlined to create a supportive regulatory framework.

(4) **Intensifying the application of new ICT in the industry;**

The application of new technology is seen as a key factor for a more competitive industry. In particular, the enhancement of skills and capacity in managing and controlling information is an opportunity for the development of services for the broader regional hinterland, with Malaysia as a virtual hub. This links with the overarching aim to expand the service offering of domestic logistics companies, with enhanced supply chain management services. Further implementation of e-systems is planned for a paperless customs service, through a web-centric e-logistics system. Upgrading the e-services of government agencies involved in trade will feed into the development of a single window system. In addition, the use of other technologies in logistics is encouraged, such as voice recognition technology, RFID (radio-frequency identification), and satellite positioning systems.

(5) **Ensuring an adequate supply of competent workforce to meet the long term requirements of the industry;**

Re-training and life-long learning in technical, commercial and operational skills are encouraged to upgrade the capabilities of the workforce involved in logistics. Links
with foreign institutions are to be established to promote the enhancement of standards to international levels.

(6) Strengthening the institutional support through inter-ministry and agency coordination in the planning, implementation and monitoring of policies and measures affecting the industry.

The outlined plans are accompanied by the enhancement of institutional support, the most prominent of which is the establishment of the National Logistics Development Council and the Supply Chain and Logistics Centre, both described in more detail in Chapter V. In addition, relevant rules and regulations are set to be reviewed by the government, in particular those relating to the safety and security of the supply chain. The government will also consider introducing the regulation on duties and obligations of road hauliers. Licensing policies on road transport and employment of foreign experts is also to be reviewed.

4. Republic of Korea

The Republic of Korea has been developing comprehensive logistics plans and regulations since the 1990s. Prior to this, logistics plans focused on one transport mode at a time. Since the 2000s, logistics policies have focused on developing logistics as an industry, rather than a supporting function of manufacturing, and developing the Republic of Korea as a logistics hub. As a concrete sign of this, the Goods Distribution Promotion Act enacted in 1991 was replaced by a comprehensive Framework Act on Logistics Policies in 2007. Every five years, a 10-year National Logistics Master Plan is developed based on the guidelines set by the Act.

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10 Also known as Basic Logistics Policy Act.
(a) Framework Act on Logistics Policies

The Framework Act on Logistics Policies provides the legal framework for the development of the logistics industry. It sets out the duties of both public and private sectors at various levels (from national to local), and draws particular focus on the institutional support for the industry and the promotion of efficiency and competitiveness. The logistics policies under the Act aim to develop the logistics industry systematically by “promoting prompt, punctual, convenient and safe logistics activities and integrating the policies of the government related to logistics interconnecting harmoniously”.\(^\text{11}\)

The Framework Act stipulates the formal process for the development of the national logistics plan. The Ministry of Land, Transport and Maritime Affairs (MLTM)\(^\text{12}\) is mandated to formulate a ten-year master plan for national logistics every five years, which sets the direction for national logistics policy. The content of the plan is described by the Framework Act, and includes:

- Consideration of changes and developments in logistics in the Republic of Korea and overseas;
- Matters concerning each logistics function (transport, storage, loading and unloading, packing, etc.) and the coordination of policies regarding each mode of transport;
- Prioritization and investment (and disinvestment) plans for logistics facilities and equipment;
- Development of infrastructure for a more integrated system;
- Measures for the improvement of efficiency in logistics through standardization, collaboration, enhancement of information literacy, etc.;
- Measures to strengthen the competitiveness of the industry;
- Training human resources for logistics and development of logistics techniques;

\(^{11}\) Article 3, Framework Act on Logistics Policy.
\(^{12}\) Following government reorganization, the current name of the Ministry is Ministry of Land, Infrastructure and Transport.
• Measures to support the internationalization of the industry; and
• Other measures considered necessary.

The Ministry is supported by the relevant government agencies, local authorities, logistics enterprises and other relevant organizations. In addition to the ten-year Master Plan, the Ministry is also mandated to produce a yearly execution plan. A Master Plan for Regional Logistics is also formulated by each city mayor to complement the national Master Plan, with the same content but a local focus.

The Framework Act addresses the efficiency of the logistics system through three factors. Firstly, the expansion of logistics facilities and equipment is supported by tasking the MLTM and the Ministry of Knowledge Economy with recommending and supporting (administratively and financially) the expansion of facilities and equipment by logistics enterprises. Special attention is paid to the consistency of facility development in terms of connectivity and avoiding overlaps. Funds may be provided also for collaboration on facilities and equipment.

Secondly, standardization of logistics, in terms of equipment and calculation of logistics cost in particular, is encouraged. The Act allows for the preferential treatment of companies adopting standardized equipment, for example by giving financial support or discounted service rates at public logistics facilities.

Thirdly, the importance of developing ICT capacity for logistics efficiency is recognized. The promotion of use of information systems is assigned to the MLTM, Ministry of Knowledge Economy and the Korea Customs Service. The Act provides the possibility for the financial support of related plans for development and operation of facilities and programmes. In addition, the Act supports the construction of function-specific and integrated logistics information networks by relevant government agencies, if deemed necessary for the promotion of collection, analysis, processing and distribution.

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13 Following government reorganization, the current name of the Ministry is Ministry of Trade, Industry and Energy.
of logistics information. For this purpose, the subcommittee on logistics facilities is indicated as a possible coordinator.

The MLTM is also mandated to construct and operate a national logistics database. Use and development of electronic documents, taking into account data safety, is supported, and the MLTM is tasked with formulating a plan for the development of standard electronic documents and to support adoption of electronic documents through promotion initiatives and other incentives.

One of the key aims of the Framework Act is the strengthening of the competitiveness of the industry. The Act allows the MLTM to offer preferential treatment for the development of logistics facilities, and to support the raising of funds for the purpose of improving efficiency in the industry. In addition, the Act actively supports the development of third party logistics companies, and the Ministry is mandated to take measures, including financial support, to support companies who wish to switch from their own logistics to third party logistics providers.

The Act also sets out the outlines of a certification scheme for logistics companies providing transport, warehousing and value-added services. While the certificate details are not issued in the Act, it provides the responsible authority (“competent Minister”) the right to revoke the license under wrong-doing or if the company no longer meets the requirements for the certification. The Act also states that the certification is to be administrated by a certification centre appointed by the MLTM, supervised and partially funded by the Ministry. The certification is to be awarded by the competent Minister, and the certified enterprises may receive benefits such as preferential access to facilities such as logistics terminals. The government can also provide support for the expansion of business and development of capacity and services (for more information on the realized certificate, see Box 1).

The Framework Act also contributes to the control of entry and exit to the “international logistics mediation business” (international freight forwarding) through
minimum standards. An operator intending to engage in international freight forwarding has to register with the MLTM, and generally possess capital of not less than KRW 300 million (referring to appraised value assets of not less than KRW 600 million if not a juristic person), and should have indemnity insurance of not less than KRW 100 million. Registration is not possible for persons who are found incompetent or who have a record of certain criminal offences. The registration can be revoked in case of wrong-doing or if the company no longer fulfills the stated requirements. The Act also promises government support for the incorporation of an association by international freight forwarders.

The Act also addressed the need to develop human capacity. Training of logistics service professionals is to be addressed by the MLTM through several measures:

- Education and training activities to build capacity in the industry;
- Development of educational programmes and materials promoting increasing efficiency and internationalization of the industry;
- Support for invitation of foreign logistics colleges to the Republic of Korea and joint activities between foreign and domestic colleges;
- Providing funding to research institutes, universities and other logistics institutions; and
- Developing a qualifying exam for the field of “logistics administrator”, and giving those companies which employ such personnel preferential treatment in the form of administrative or financial support.

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14 “A business mediating logistics of importing and exporting goods by making use of logistics facilities, equipment, etc. of others in his/her own name and by his/her calculation at the request of others.” Article 2 (1) 11, Framework Act on Logistics Policy.
15 “Plan, investigate, research, diagnose, and evaluate matters that require specialized knowledge in connection with logistics activities, or consult and advice thereon, and perform other duties necessary for logistics administration”. Article 52, Framework Act on Logistics Policy.
The Act supports the development of a Logistics Association, and tasks the MLTM with providing administrative and financial support for the Association. A joint logistics support centre is described, intended to strengthen national competitiveness in logistics; to support the overseas expansion of logistics business; to carry out research to further develop the industry; and to consider other matters contributing to a more efficient logistics system.

Innovation in technology and logistics is supported by the MLTM through financial and administrative support for the adoption of new technology, research in logistics and eco-friendly means of service provision. The Ministry can also award prizes to agencies, enterprises or individuals who have significantly contributed to research in the field of logistics.

The MLTM is designated as the key agency for the promotion of international logistics business. This includes keeping the National Logistics Policy Committee,
described in more detail in Chapter V, involved in any intergovernmental agreement or collaboration relevant to logistics. In addition, support can be provided for activities relating to international exchange of information and technology, international harmonization of standards, international research, scientific seminars and conventions, establishment of organizations supporting logistics activities between countries, attracting foreign enterprises and investment promotion.

Investigations may be carried out on the current state of the logistics industry by the MLTM when deemed necessary. In those cases, the Ministry can request the help of relevant central, local and private agencies supported by the Act. Investigations can also be carried out at a local level.

(b) National Logistics Master Plan

The vision of the national logistics master plan for 2011-2020 is for the Republic of Korea to become a leading hub for Northeast Asia through improved cost competitiveness; development of the logistics industry into providing value-added for the global market and becoming one of the five leading industries of the country; and the logistics industry leading low carbon green growth, with significant reductions in CO₂ emissions from logistics. The vision further feeds into three strategic objectives, contributing to five development strategies. The implementation framework is presented in Figure 3.
Each strategy is translated into specific implementation tasks. For the development of the infrastructure, there are six distinct tasks. Firstly, logistics facilities are to be systematically developed and their service enhanced through a review of current and planned facilities to increase cohesion and integration. Secondly, efficient local logistics are to be promoted through the enhancement of the competitiveness of urban logistics, which is supported through measures such as including the requirement for improvement of logistics as mandatory for urban environmental renewal projects. Thirdly, research and development projects will be implemented to introduce and disseminate new concepts for freight transport systems, particularly relating to development of green transport and promotion of multimodality through integrated technology. Fourthly, a comprehensive support system to promote rail logistics is established, and the efficiency of rail transport enhanced through both regulatory and financial support, including consideration of mandatory transport of heavy freight for long distance or dangerous goods. Fifthly, the support for revitalizing coastal shipping is strengthened through measures such as berths reserved for coastal shipping and strengthened financial support for securing coastal vessels. Lastly, the competitiveness of major trading ports is to be
enhanced by promoting regional specialization of ports, the expansion of Busan port, the commercialization of port unions and the establishment of training operation systems.

The development of “hardware” is complemented by six implementation tasks for “software”. Firstly, the Master Plan seeks to strengthen the implementation of logistics policies by setting up a policy coordinating body (national logistics committee), supported by a dedicated unit for continuous support for logistics policy development. Secondly, a statistics management system is built as an independent organization to support policy making, with the cooperation of the national statistics authority. Thirdly, the ICT infrastructure is to be expanded in key logistics hubs, and a nationwide logistics information network is to be established. Fourthly, human resources in logistics are to be developed through a mid- to long-term national plan. The national certification system is also to be improved by moving away from written tests towards the evaluation of practical performance. At the same time, the employment of foreign nationals is eased, and qualified personnel are allowed to work in logistics companies as a substitute for mandatory military service. The Master Plan also includes implementation tasks for the strengthening of the standardization programme through greater integration of the work of different ministries, and the enhancement of logistics cooperation capabilities in the industry.

The Master Plan addresses sustainability from several perspectives. Firstly, it emphasizes the need to establish an environmentally friendly logistics system as a response to global environmental regulations. Particularly, a plan is to be developed for the reduction of greenhouse gas emissions, the establishment of a green logistics management system and the preparation of guidelines on green logistics. In addition to the environmental aspect of sustainability, the plan also considers the need to improve welfare and working conditions in the industry, particularly in the maritime industry. A plan is to be developed to improve the ability of the industry to respond to disasters, and to improve safety in transport. An integrated system is to be developed for logistics security, combining the laws and institutional systems of the MLTM, the Ministry of Knowledge Economy, the Korea Customs Service and the National Intelligence Service.
Social regulation is to be reviewed to increase transparency and fair play in the logistics sector. Special attention is given to the working conditions of drivers and the training of staff in safety and disaster preparedness. Long term growth potential of the industry is promoted through measures to make the industry more accessible to job seekers, to prepare for the aging of the population, and to stimulate demand. This is done by improving the proximity of housing to jobs by developing downtown logistics facilities, greater automation of work to improve worker productivity, and greater outsourcing of public logistics needs respectively.

To improve the industry’s international competitiveness, logistics hubs are to be further developed into industrial complexes. At the same time, the specialization of ports is expected to improve their competitiveness, and institutional support for attracting companies to hinterland and free trade zones is to be enhanced. The competitiveness of flagship carriers is to be improved by addressing the regional concentration of air routes and enhancing international cooperation. Measures to enhance maritime transport include international cooperation and technical advancement for the expansion of networks, including a China-Japan-Republic of Korea port alliance and a strengthened coastal feeder network. Companies operating internationally are to be supported in their efforts to expand their operations and improve their global market share through financial support, consultation services and promotion of best practices. International cooperation is also to be strengthened to improve global intermodal transport networks. Country-specific plans for international cooperation, and sharing of knowledge and experience are promoted.

The capacity of domestic industry is also enhanced through a system to promote structural stability and advancement of the industry, including review of relevant regulations and support programmes for competent logistics companies. Other measures include the support to small companies to specialize, a shift to a permit based on qualifications (rather than adjustment of supply and demand), granting corporate transport the same support as public transport, and establishing a registration system to secure registration standards. Also the home delivery service industry is to be improved.
through rationalization of charges, review of qualification criteria and improving working conditions.

Third-party logistics is promoted through measures such as tax breaks and consulting services. In addition, to change the perceptions of shippers, the shift from one-party logistics to third-party logistics is recorded in the evaluation indices for logistics industry. Outsourcing by public institutions to third party logistics companies is encouraged. A global logistics company certification is used to support the internationalization of the industry.

5. Thailand

Based on Cabinet decision in 2004, a national Strategy on Logistics for the Kingdom of Thailand was published. The Strategy sets out the national vision of “turning Thailand into the logistics hub of Southeast Asia and the Greater Mekong Region in particular” and presents an analysis of the strengths and challenges of the industry for the achievement of this goal. The publication of the Strategy was followed by Thailand’s Logistics Development Strategy for 2007-2011, which outlined more detailed medium term goals, strategies and key performance indicators. A second Logistics Development Strategic Plan (2013-2017) has also been developed.

(a) Strategy on Logistics for the Kingdom of Thailand

The Strategy highlights the importance of logistics to the wider economy of Thailand, and the particular challenges faced by logistics service providers, such as need for greater cost-efficiency and education of personnel. Interviews with companies in Thailand were used to identify problems and requirements, highlighting in particular the need for support in problematic areas, reliability in information and data transmission,

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decrease in the risk of damage to goods and insufficient basic infrastructure for goods. Lack of regulatory coordination is also highlighted.

The observed solution for the changing environment is the internationalization of “classical” transport companies, and expansion of services to logistics service provision. The strategy therefore emphasizes that domestic companies need to move on from the mere provision of physical transport and competing on reductions in costs. Instead, they need to consider advantages, such as guarantee on delivery time, ICT services, and damage protection. The companies are also encouraged to integrate with major export/import customers, and form alliances with logistics facilities and other service providers. The importance of benchmarking performance is also emphasized.

The Strategy also identifies key transport corridors for improvement and highlights the importance of multimodal transport infrastructure. Major logistics centres are suggested for the borders and the junctions of corridors to enhance competitive thinking and efficiency of multimodal transport. In addition, they can act as hubs for logistics companies and other industries. Efficiency is also supported through the adoption of new technologies, such as e-logistics. Revisions to legislation are proposed to avoid discrimination of internationally operating transport and logistics companies and to facilitate international cooperation, following the case of Singapore as the benchmark.

The implementation of the Strategy is based on two pillars, a White Paper proposing concrete measures in transport and logistics, and the establishment of a logistics council to implement the White Paper (discussed further in Chapter V).

(b) Thailand’s Logistics Development Strategy for 2007-2011

The Logistics Development Strategy sets out a more detailed plan for the shorter term development of the industry. The goal of the strategy is to lower logistics cost as a proportion of GDP from 19 per cent in 2005 to 16 per cent in 2011. This is to be achieved through five strategic agendas, presented in Table 4.
Two major strategies contribute to the promotion of the development of efficient and traceable supply chains, i.e. the strategic agenda of business logistics improvement. Firstly, enterprises are encouraged to understand the value of logistics management and best practices, as well as the use of information technology in the supply chain, in order for them to improve their logistics management techniques. Measures are aimed at key industries such as agricultural, industrial and service sectors. Secondly, a variety of measures are implemented to support supply chain visibility and development of logistics offering towards supply chain optimization. Greater efficiency in supply chain can be achieved through clustering, by encouraging standardization in the supply chain, and supporting associations in implementing efficient logistics management. Efficient transport systems for perishable and frozen goods are emphasized.

The Strategy offers key performance indicators for the achievement of the strategic agenda. Key performance indicators for enhanced logistics management techniques are lower logistics costs, greater customer responsiveness, increase in the number of logistics service providers, and greater understanding among entrepreneurs of the importance of logistics and the need for increased use of logistics services. For supply chain visibility and performance, progress is measured with two performance indicators: lower food transportation costs, and the number of business associations collaborating in the development of logistics services.

The second strategic agenda, transport and logistics network optimization, is focused on enhancing Thailand’s position as a regional hub for logistics. The integration of the logistics system refers in particular to the transport infrastructure. The motorways, feeder systems, logistics centres and container yards contribute to a more connected logistics system and support the development of regional manufacturing and trading centres. Additionally, the deep sea ports of the west coast are to be developed and connected with regional transport routes and major trading centres. Performance indicators include reduced transport times on main routes and lower investment costs of the private sector in the development of logistics centres.
The network is to be optimized also in terms of energy consumption through better management of transport. Central to the strategy is the promotion of rail transport, including improvement of infrastructure and the rearrangement of the State Railway Authority, with a more focused role on railway and passenger train networks. Meanwhile allocation of locomotives and bogeys, handling services and implementation of latest innovations is left to the private sector. Waterway and pipeline transportation is also considered to be the responsibility of the private sector. The key performance indicator is reduced logistics costs for companies, relative to their sales revenues.

Logistics service internationalization is included as a separate strategy, highlighting the perceived importance for maintaining the competitiveness of Thai logistics service providers and enhancing their value-added. Internationalization is supported through the promotion of commercial alliances where service complementarities exist. Joint ventures and alliances are encouraged, both between domestic companies and with international service providers, in addition to universities and the Thai Federation on Logistics. Business-matching, cost sharing and information exchange between companies is seen as a contributor to a more integrated logistics system. Progress is measured as an increase in the number of logistics service providers and increased cooperation between businesses.

There is also a focused strategy to support local industries through the development of logistics service providers serving SMEs and agricultural producers in particular. In addition, the development of human resources of domestic companies is enhanced by introducing a multimodal transport service and transport-insurance service, and by supporting the expansion of their business through updated investment-promotion criteria and other related rules and regulation. Specifically, the strategy aims to increase the sales revenues of logistics service providers with a majority Thai shareholding, and to increase the number of specific service providers.
Trade facilitation enhancement is included as a strategy to reduce operators’ import and export handling costs. This is to be achieved through the development of e-Logistics and Single Window Entry into a central system for importers, exporters and logistics service providers, linking the private sector and government agencies. As a result, reduced processing time in export and import are expected, as well as lower transaction costs for importers and exporters. Paper use is also reduced as part of a move towards a paperless system. E-commerce is encouraged by expediting the enactment of four Royal Decrees relating to electronic transactions, and by setting up information sharing standards.

Import and export processes are further facilitated through the improvement of trade-related taxation and customs clearance procedures, reducing costs and time of transporting import and export goods. Distribution and logistics centres also contribute to the facilitation of trade and increase the competitiveness of Thai businesses through lower distribution costs. Efficiency and service quality of inspections for pesticides, toxic substances and contaminants is also to be increased, with the aim of lower total export costs.
Table 4. Five Strategic Agendas, Thailand’s Logistics Development Strategy for 2007-2011

<table>
<thead>
<tr>
<th>Strategic agenda</th>
<th>Goal</th>
<th>Hosts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Business logistics improvement</td>
<td>Businesses in strategic industries will have an efficient logistics system that will be traceable throughout the supply chain.</td>
<td>Ministry of Agriculture and Cooperatives, Ministry of Industry, Ministry of Commerce, Ministry of Science and Technology, Ministry of Information Technology and Communications, National Economic and Social Development Board, and the Thai Federation on Logistics.</td>
</tr>
<tr>
<td>2. Transport and logistics network optimization</td>
<td>To set up an integrated logistics-management system to accommodate Thailand’s status as Indochina’s logistics hub in terms of gathering, transferring and distributing merchandise, both regionally and internationally.</td>
<td>Ministry of Transport, Ministry of Commerce, Ministry of Energy, Ministry of Science and Technology, National Economic and Social Development Board, and the Thai Federation on Logistics.</td>
</tr>
<tr>
<td>3. Logistics Service internationalization</td>
<td>To upgrade Thai logistics service providers so that they remain competitive and their services remain in the high value-added category.</td>
<td>Ministry of Commerce, Ministry of Industry, Ministry of Labor, Ministry of Education, National Economic and Social Development Board, and the Thai Federation on Logistics.</td>
</tr>
</tbody>
</table>

*Source: Based on Thailand’s Logistics Development Strategy (2007-2011)*
Finally, capacity building is required to produce competent logistics personnel. Training is encouraged by allowing tax deductions for companies for training expenses, by enhancing the capacity of training institutes, and by raising awareness of the benefits of logistics efficiency. The aim is to produce 100,000 logistics personnel at senior-executive, management and operator levels, and another 285,000 personnel in the logistics service industry by 2011. In addition, 1,379 trainers and lecturers with international-level logistics skills will be trained by 2011. The quality of research and training is also to be enhanced through cooperation between institutes, updating courses and teaching methods to international standards, and by creating a clear career path in the logistics industry. Logistics innovation is supported by development of tertiary education institutions. Progress is measured through an increase in the number of institutions offering logistics courses at international level, increase in number of research papers on logistics and the introduction of clear standards for logistics professionals and logistics labour skills.

As part of capacity building, it is also recognized that the collection and development of logistics data is a key element to the development of national logistics strategy. At the national level, data is collected on commodity flows, operating costs and added value into a logistics management data system. The plan also includes the establishment of a national logistics development committee to coordinate and monitor policy, including government agencies and the private sector.

(c) Logistics Development Strategic Plan (2013-2017)

There are many similarities between the first and second Logistics Development Strategic Plans. The second Logistics Development Strategic Plan (2013-2017) is titled Trade and Supply Chain Facilitation for Competitive Advantage Enhancement, highlighting its focus on the supply chain view of logistics and the importance of facilitation. The Plan consists of three missions: Supply chain enhancement, Trade facilitation enhancement and Capacity building and policy driving mechanism, which are to be implemented through nine strategies.
The first strategy focuses on the agricultural chain, which was also a key focus for business logistics improvement under the first Plan. Trade facilitation also includes network improvement, in addition to the improvement of facilitation at gateways. The services of logistics service providers are enhanced through increase in competitiveness in supply chain management and potential business (Strategy 2) and promotion of service improvement and expansion of logistics service provider network (Strategy 6). As shown in Figure 4, the foundation of development of the industry is formed in the last three strategies: a human resources development system, monitoring of performance and the institutions for strategy implementation. As a new area, special strategy is declared on promoting trade and services in border areas.

Figure 4. Second Logistics Development Strategic Plan (2013-2017)

Source: www.adbi.org/files/2013.05.10.cpp.sess6.2.paijitprapapon.thailand.manufacturing.logistics.pdf
B. Features of Coordinated National Policy

National logistics strategy or logistics policy can take many forms. However, the overarching purpose of a national logistics strategy is to set out the national priorities and goals in the area of logistics in the short-, medium- or long-term, and to bring together the key steps that are considered necessary for the achievement of the national aims. A key driver for the national logistics strategies is to increase policy coherence across the management of the industry and to systematically address the changing global environment.

A national logistics plan is often tied to the overall national economic strategy. It can be directly a part of the national plan, as in the cases of China and Malaysia. Otherwise, the consistency of the plan with other national incentives needs to be addressed, for example by acknowledging the linkages from logistics to other industries and trade. A national long term logistics strategy is necessarily high-level, and requires a more detailed implementation plan to ensure effectiveness. The strategy is therefore followed by a logistics (master) plan for a given time period, for example 10 years. Relevant authorities then translate the goals set in the plan into a detailed implementation plan for their areas of responsibility. This can include also the development of implementation plans by regions or provinces. The flow of implementation is shown in Figure 5.

Figure 5. Flow of implementation for national logistics strategy

While generally under one ministry, such as the ministry for transport or a ministry in charge of economy or commerce, the development process can involve the participation of a wider range of stakeholders. In addition to relevant government
agencies, such as customs, ministry of trade and ministry of industry, private sector actors (most commonly represented by logistics associations and chambers of commerce) and academics can also contribute to the development of the strategy. In addition, national logistics operators, such as the railway company authority, port operator or national carrier, need also to be included in the strategy development process.

The exact content of the national policy depends on the priorities of the country in question. However, some common features emerge from the examples presented in Section A, which are presented in Table 5.

Many national policies identify priority infrastructure developments. The priorities can be determined by the identification of transport corridors, key terminals (in particularly ports), preferred transport modes (for example rail or inland waterways) or priority facilities (e.g. logistics centres), or be directed through the selection of key industries. Infrastructure development contributes to the creation of a more efficient and effective logistics system and promotes intermodality, which is recognized in the plans as a key element to modern logistics. For this reason, logistics centres and terminals are emphasized in several national logistics plans.

A national strategy can also outline the required steps for the streamlining of logistics regulation and policy. Facilitation measures, such as the introduction of national single windows and review of customs procedures, contribute to the efficiency of the logistics sector and enhance the competitiveness of the country as a contributor to global supply chains.
Many national logistics strategies recognize that logistics is an international industry, and emphasize the need for the national logistics policy to support the international potential of the domestic logistics industry. This can include the support and implementation of subregional initiatives, such as the ASEAN Economic Community, and programmes supporting the expansion of domestic companies internationally. The potentially beneficial impact of partnerships with foreign companies and employment of foreign experts is recognized. In several national strategies, the relaxation of immigration policies for logistics experts is suggested to promote further development of the industry.
Many national strategies recognize the changing nature of logistics service providers, and commit to the development of domestic industry in line with international trends. This may involve assistance for companies entering 3PL services, preferential treatment of companies expanding their service offering, and support for mergers and acquisitions to improve efficiency and competitiveness of domestic companies. Public institutions may also be encouraged to outsource their logistics functions as a way to offer more opportunities for the domestic industry to develop their services.

The importance of ICT makes it a key element of any national strategy. The national policy can outline details of single window and information platform initiatives, as well as general policies to improve the usage of technology for greater efficiency in logistics. Promotion of ICT is also connected with national capacity development plans, as ICT literacy is crucial for the successful use of technology. In several strategies, the need to improve logistics databases and data collection is addressed, in recognition that industry data is crucial for the development of the economy. Comprehensive data can also be an important resource for the private sector in the development of their services and management of their businesses.

The industry can be promoted through initiatives and aims relating to skills and qualifications. This can include plans to introduce professional accreditation and promoting further education in the industry, in addition to the measures aimed at liberalizing the employment of foreign nationals to fill in gaps in national know-how. Domestic logistics courses may be upgraded to international standards to provide more opportunities for capacity development. While focusing on industry-specific skills, general business skills may also be included to take into account the need for a change in the skillset for the logistics workforce.

As a related aim, the development of the industry can be supported with the promotion of harmonization and minimum standards in the industry, either through development of regulation or other means, such as providing incentives to those who adopt standardized systems. The working conditions of employees working in the
logistics sector, particularly truckers, may be addressed through a national strategy and master plan.

National strategies may also develop new forms of institutional support for the development of the logistics industry. The most comprehensive approach can be the development of a national logistics council/committee in charge of the implementation and further development of logistics policy. Institutional support can also include establishment of logistics research institutes to promote innovation and creation and sharing of knowledge.

Finally, national plans may outline the plans for implementation, including timeline and implementing agencies. According to national priorities, additional categories can be added, such as support for SMEs, promotion of e-logistics or the enhancement of green logistics.

While the development of a national strategy can be a time-consuming and costly exercise, a national logistics plan has several benefits. Firstly, it outlines a common understanding of national priorities in the fields relevant to logistics. Coordination of actions by various government agencies and the private sector is very complicated, and the various stakeholders may have different views on the appropriate action at different stages of industry development. By going through the consultation processes related to the development of a national strategy, stakeholders can agree on a common direction, and thus better determine their own contribution to the development of the industry. A related benefit is the use of logistics capacity development funds in a more efficient way, because actions are consistent and do not duplicate work by other agencies. A high-profile national strategy can also serve as a sign of government commitment to the development of the logistics industry and national and international connectivity. By setting concrete targets, the performance of the relevant agencies can be measured against the national strategy and implementation plans.