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EMERGING ISSUES IN TRANSPORT

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**AN ENABLING ENVIRONMENT FOR THE DEVELOPMENT OF
TRANSPORT LOGISTICS**

Note by the secretariat

SUMMARY

Globalization of production and distribution has brought about a complete change in corporate thinking and in the centralized-planning systems of companies that were responsible for everything from raw material extraction/supply to manufacturing/production, sales/marketing and transport/distribution.

As new opportunities created by outsourcing became obvious, transport operators and intermediaries evolved to provide a range of sophisticated logistics services. While in some parts of the world logistics services are at an unprecedented level of performance, much work needs to be done in the ESCAP region in order to provide value adding services to trade and to optimize the potential of logistics development.

The present document proposes an approach for both Governments and industry to achieve a common objective, namely, the creation of an enabling environment for the development of competitive logistics services and related infrastructures as a means for economic growth.

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I. BACKGROUND

1. Logistics is not a new item on the ESCAP agenda. “Logistics and facilitation” was approved as a priority area in the New Delhi Action Plan¹ on Infrastructure Development in Asia and the Pacific by the Ministerial Conference on Infrastructure held in New Delhi in 1996.² At its fifty-fourth session, held in 1998, the Commission endorsed the refined strategy and revised subregional groupings for the implementation of the Asian land transport infrastructure development project,³ which included the improvement of transport logistics.⁴ The Ministerial Conference on Infrastructure, held in Seoul in 2001, maintained “logistics and facilitation” as a priority area for phase II (2002-2006) of the Regional Action Programme of the New Delhi Action Plan on Infrastructure Development in Asia and the Pacific.⁵

2. While countries have achieved progress within the framework of previous regional action plans, the full potential of logistics development in Asia and the Pacific and its benefits for trade and the economy have not yet been fully realized.

3. Logistics is easier to explain than to define. In practical terms, logistics is to have the right thing in the right place at the right time and at the right price. At a more complex level, logistics could be explained as the totality of ways and means concerning the organization of services and the flow of materials before, during and after production. At a practical level, logistics relates to the planning and management of the movement of people, materials and goods by road, rail, air and water, and the related professional and technical support services required. These services include inventory management, assembly, packaging and labelling. Logistics can thus comprise a wide array of services that are constantly evolving and range from the transportation and distribution of goods to the integrated management of supply and distribution chains.

4. The supply chain is the collection of steps taken to transform raw materials and components into the final product. It comprises producers, manufactures and the complete network of distributors, transporters, storage operators and retailers that participate in the production, delivery and sale of a product to the consumer. Supply chain management is the supervision of materials, information and financial flows through the production process until distribution to the consumer. Supply chain management is a process used by companies to ensure that their supply chain is efficient and cost-effective.

¹ Commission resolution 51/8 of 1 May 1995, annex.

² See E/ESCAP/1058. See also *Official Records of the Economic and Social Council, 1997, Supplement No. 18* (E/1997/38-E/ESCAP/1080), paras. 223-224.

³ See *Official Records of the Economic and Social Council, 1998, Supplement No. 20* (E/1998/40-/ESCAP/1117), para. 230.

⁴ See E/ESCAP/CTC(3)/2.

⁵ See E/ESCAP/1249. See also *Official Records of the Economic and Social Council, 2002, Supplement No. 19* (E/2002/39-E/ESCAP/1264), para. 246.

5. Logistics service providers are usually transport operators and intermediaries (freight forwarders) who have successfully developed capabilities beyond providing traditional forwarding and Customs clearing services. Initially, their services included cargo consolidation and the selection and combination of transport modes and operators. Subsequently, they provided multimodal transport, issuing a single transport document and accepting responsibility from door to door.

6. At a more sophisticated level, logistics service providers can become very involved in the functional design and operation of their clients' logistics systems. This would include labelling, packaging, warehousing, transport and materials management, operational planning, executing the shipment, controlling the tracking and tracing of the shipment, and keeping the shipper informed. They may also be involved in project management on behalf of their customers and may take strategic decisions. These services, as well as the internal processes, which today are supported mainly by information technology, are offered to the customer. The significance of logistics services will continue to evolve in view of technological advances and changes in business models, particularly those brought about by electronic commerce (both business-to-business and business-to-consumer).

7. Notwithstanding the above, transportation continues to be a major focus of logistics service providers. Being commercially driven and seeking cost-effective transport solutions for their clients, they are well placed to commercialize and optimize the transport networks that are being developed by Governments across the ESCAP region. Success stories in the region demonstrate how logistics service providers can bring together different modes of transport to offer a package of services combining road and rail with appropriate maritime connections.

8. Many international shipping lines, freight forwarders and multimodal operators already provide logistics services within the region. The logistics industry can generate employment, as freight forwarders evolve through business development or through mergers into fully fledged logistics service providers offering more of the value added components in the supply chain.

9. With the Intergovernmental Agreement on the Asian Highway Network,⁶ which entered into force on 4 July 2005, and the Intergovernmental Agreement on the Trans-Asian Railway Network⁷ as major building blocks of integrated international transport systems, there is an increasing demand for proper logistics services to ensure high quality transport services.

II. CREATING AN ENABLING ENVIRONMENT

10. The key factors required to establish and develop the logistics industry can be identified as infrastructure (transport and information technology (IT), intermodal logistics facilities, recognition of logistics service providers, suitable regulatory regimes, institutional arrangements and expertise. Within the region, however, only a few countries have been fully successful in putting all of these

⁶ See Commission resolution 60/4 of 28 April 2004.

⁷ Commission resolution 62/4 of 12 April 2006, annex.

elements in place. As a result, transport and logistics costs in Asia are significant when compared with those in Europe and North America.

11. A comprehensive approach is required in order to create an enabling environment for efficient logistics. Mutual awareness of the roles of Government and private industry in meeting each other's needs in the international supply chain is paramount for successful cooperation. Public sector bodies thus need to work closely with the private sector through regular dialogue. The national trade and transport facilitation mechanisms being established or strengthened in the region could be the forums for real public-private partnerships.

A. Principal actors and the need for the recognition of service providers

12. In the public sector, several government ministries, departments and agencies are responsible for the formulation and the implementation of policies relating to infrastructure development, including land use planning and the formulation and the enforcement of regulations. Public entities also have a stake in promoting efficient transport operations in order to ensure capacity meets demand.

13. In the private sector, logistics service providers, many of whom have evolved from transport operators, freight forwarders and multimodal transport operators, bring together a range of services and facilities that can be presented as a single comprehensive package to meet the needs of shippers. In the last decade, to meet the challenges of globalization, some of these players have provided increasingly sophisticated services in addition to basic transportation, warehousing and inventory management by synchronizing technology and forming domestic/international networks and alliances. However, these parties are often intermediaries who do not own the mode of transport and, as such, are often not recognized legally. While countries in North America and in Europe and the more advanced countries of the ESCAP region are initiating sophisticated logistics concepts beyond multimodal transport, the majority of the countries in Asia and the Pacific are battling hurdles that restrict intermediaries, such as freight forwarders, in order to establish multimodal transport and logistics services. Governments could encourage the development of national enterprises specializing in logistics services.

14. Governments, however, cannot act alone: they need to cooperate with the private sector through win-win strategies. A weak private sector will not be able to take advantage of the full benefits of the enabling development measures put in place by Governments. Accordingly, the industry should consider selection criteria for its members and should admit only reliable players. Criteria could include professional competence, financial standing and a good fiscal record.

B. The issues

15. There seem to be several general reasons for the slow emergence of logistics specialists in some countries of the ESCAP region. These include the failure of the public authorities to promote logistics programmes, the lack of awareness of and education on the merits and benefits of supply chain management solutions, the low propensity of small and medium-sized enterprises to outsource non-core

activities, such as transport and distribution, and the lack of IT standards with poor systems integration and equipment.

16. Some of the more specific issues that need to be addressed in countries of the ESCAP region are identified below.

1. Common standards governing the operation of logistics service providers

17. Although today almost all parties involved appear to have learned to cope with complicated national legal systems, the actual liability of the service providers remains unpredictable. A clear liability regime in keeping with international norms is far from being achieved. Liability insurance for transport intermediaries has been traditionally provided through transport insurers. The premium is high, and small and medium-sized enterprises are thus prevented from obtaining suitable liability insurance cover.

18. The lack of common standards guiding the operation of freight forwarders, multimodal transport operators and logistics service providers impedes progress in the industry. It is therefore important that Governments and industry work together to manage effectively the changes that will facilitate improved performance.

2. Development of infrastructure and intermodal connections

19. While developments in the Asian Highway and the Trans-Asian Railway networks provide countries with increasing transport options, the lack of intermodal connections with comprehensive services, the lack of “last mile connection”, particularly for rail, and the lack of suitable equipment all hamper the development of logistics. In some countries of the ESCAP region, logistics service providers have serious problems in accessing finance for the purchase of equipment.

20. Connecting government agencies and private industry with a joint IT network could allow for greater efficiency in the transport chain, for example, by implementing the “single window” concept.⁸ Correspondingly, Governments must keep pace with development in IT, including tools that enable the monitoring of goods from origin to destination, for example, radio-frequency identification.⁹

21. Where logistics service centres have already been established, their locations have often been determined in an ad hoc manner, as opposed to building a series of interconnected centres in a honeycomb or web network pursuant to a national strategy. The locations of logistics service centres need to be considered within the context of wider national transport plans. Ideally, centres should be situated where transport modes intersect.

⁸ A “single window” is a facility that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfil all import, export and transit-related regulatory requirements. (See Economic Commission for Europe, United Nations Centre for Trade Facilitation and Electronic Business, *Recommendation and Guidelines on Establishing a Single Window* (ECE/TRADE/352) (United Nations publication, Sales No. E.05.II.E.9), p. 3).

⁹ Radio-frequency identification is a technology developed in the 1940s and has recently been adapted to keep track of goods moving through a supply chain.

3. Exchange of experiences and partnerships within the region

22. There is a need for information sharing between public and private sectors on the current status of logistics in the ESCAP region and on the present and future trends in trade flows, including type and volume, as well as the time those goods spend in transit. The private sector, eager to develop its business, may be more willing to consider relocating inland and extending logistics services if information is readily available, reliable and transparent. Sharing experiences and success stories within the region where logistics service providers and Governments work together would encourage the industry to propose innovative ways of utilizing new infrastructure and intermodal connections.

4. Capacity-building in logistics

23. Local knowledge and skills, networking at national, regional and subregional levels, and access to a network of international contacts are the key components for success in freight forwarding, multimodal transport and logistics services. It is therefore paramount that Governments in developing countries assist their freight forwarders in evolving so that the latter can contribute to the economic growth of their country. In general, no standardized or comparable vocational training in the field of logistics exists, and there is a lack of “intermodal-driven” thinking.

24. To this end, capacity-building programmes could be developed in order to ensure regular training of new and existing entrants to the transport industry, including specific training programmes resulting in competence-based certification. Attendance by both the public and private sectors would enable each to acquire a greater understanding of the other’s role and provide an informal networking platform for mutual feedback.

III. EXPANDING THE BENEFITS OF LOGISTICS SERVICES INLAND

25. In some countries in Asia goods tend to travel by a single mode of transport, usually trucks, from seaports to inland locations. This is partly attributed to the lack of suitable infrastructure and intermodal interchange points and the absence of intermodal culture. This unimodal method of distribution is strikingly similar to that of the liner shipping industry prior to the development of the hub-and-spoke system of ports¹⁰. It seems likely therefore that key principles of the hub-and-spoke system could be adopted for application on land through the use of logistics service centres/dry ports.

26. The first major impact of logistics’ development was visible at seaports. Some seaports have evolved into logistics centres, with port activities being upgraded from pure cargo handling at terminal points to the provision of comprehensive transport services, and then to a logistics platform acting as a storing and sorting centre and providing the opportunity for value adding services, such as labelling, packaging, branding, tracking and tracing, and stock keeping. In recent years the location of logistics service centres (also known as logistics parks, distribution centres or distriparks) has been widely taken

¹⁰ The hub-and-spoke system is a system of distributing goods through nodal points whereby increases in the total distance travelled are offset by a lower unit cost through economies of scale.

into account in designing new terminals at ports. Inland logistics service centres/dry ports can perform functions similar to those of seaports, for example, bringing together container (and possibly bulk) handling facilities, intermodal infrastructure connections, a geographical grouping of independent companies and bodies dealing with freight transport (freight forwarders, shippers, transport operators), and accompanying services (Customs inspections, tax payment, storage, maintenance and repair, banking and IT).

27. The location of these centres has been based largely upon proximity to the seaport, although they can be located at other nodal points in the transport chain. Related concepts include logistics service centres, inland container depots, load centres, freight villages, free zones and dry ports. Recent studies by ESCAP¹¹ provide examples of the changes and trends taking place in ports from a logistics and supply chain perspective and identify benefits and potential limitations in developing logistics services for ports.

28. Many countries in the ESCAP region have included in their national development programmes measures aimed at ensuring balanced development between coastal and inland areas and between urban and rural areas. To this end, the infrastructure projects provide the opportunity to shape the development process. The feasibility of creating logistics centres at inland locations, however, has not been assessed in many countries, perhaps because the direct and indirect benefits of such centres have not yet been fully understood. One possible example could be the perishable cargo business, in which enormous losses are believed to occur annually. According to the data available, between 30 and 40 per cent of some countries' fruit and vegetable production suffer damage, principally because of improper post-harvest care. Essentially, this means failure in storage and in distribution.

29. The efficient flow of goods between inland and coastal regions is the key first step in connecting underdeveloped inland regions to the globalization process. The Asian Highway and Trans-Asian Railway networks across the ESCAP region provide intermodal interchange points, some of which could be a "starting point" in considering locations for logistics service centres. In this regard, countries have identified a number of terminals that could handle containers of at least 20 feet in length that meet the requirements of the International Organization for Standardization. These terminals, with connections to the Asian Highway network, could be examined as potentially suitable locations to develop into logistics service centres, complemented by national networks, which could form a part of an international integrated intermodal transport system in the region.

30. The demand-driven development of dry ports, around which industries and businesses could be located, could provide an enabling environment. This would be similar to the process that has occurred naturally along coastal regions, attracting international interest and stimulating local economic activity

¹¹ ESCAP, *Commercial Development of Regional Ports as Logistics Centres* (ST/ESCAP/2194), 2002; and ESCAP, *Free Trade Zone and Port Hinterland Development* (ST/ESCAP/2377), 2005.

for the benefit of the local people. Ultimately, dry ports could potentially act as “growth poles”¹² similar to seaports, which could lead to increased employment, higher living standards and improvements in geographic income distribution.

31. Improved transport infrastructure between inland and coastal regions, especially those routes designated by the Intergovernmental Agreement on the Asian Highway Network and by the Intergovernmental Agreement on the Trans-Asian Railway Network, should be accorded high priority by Governments. The initial research by the secretariat has shown that access to markets and suppliers is of paramount importance to businesses that are seeking to establish new premises. When such businesses have a reliable inland connection with the seaport industry, they may be more confident about relocating inland.

32. The timely flow of goods along corridors linking inland and coastal regions could help industry to expedite the transport process through the scheduling of shipments, thereby avoiding the need to carry excess inventory. Clear, concise and transparent guidelines on procedures at international border crossings would enable industry to standardize its procedures and to better plan its activities.

33. A step-by-step action plan should be made, with the support of central Governments and the active participation of local governments and of business communities, detailing the processes for attracting business to inland locations. The plan should include a summary of the costs and benefits available.

34. The creation of facilities that ease the movement of goods between transport modes, for example, logistics service centres or dry ports, creates a focal point for the development of ancillary services and may lead to the development of industrial clusters and synergies, which would lead to exponential growth.

35. Many factors need to be brought together in order to develop and strengthen logistics services in a country. The improvement of inland locations and the development of logistics service centres cannot be considered without bearing in mind the needs of users. By creating a basis from which industry could operate, Governments would help the private sector to develop without requiring high start-up capital.

IV. ISSUES FOR CONSIDERATION

36. The logistics industry in some countries of the ESCAP region is at a relatively early stage of development, and there are lessons to be learned from both successful and unsuccessful operations within and outside the region. These lessons include the practical implementation of logistics, integrated infrastructure and policy development, the removal of impediments, information and communication technology, the maximization of the benefits of foreign investment and the management of the change.

¹² A concept coined by François Perroux in 1949 to describe isolated quasi-autarkic pockets of development.

37. The development of an efficient national logistics system can be encouraged through the sharing of knowledge and experiences of the private sector with Governments in national, subregional, regional and international forums. A comprehensive assessment of the logistics scenario in the ESCAP region would be beneficial. This, together with appropriate capacity-building programmes, would lead to improved professionalism and skills within the industry. There is a need for research on how logistics services can be extended inland through corridors, which would create a natural formation of industrial clusters.

38. The Senior Officials are invited to comment on the views expressed in the present document and to consider the following elements in a regional programme that could be implemented in the period up to 2015 to strengthen regional cooperation in creating an enabling environment for the development of transport logistics.

Guidelines for the operation of logistics service providers

Immediate objective: To create common standards for the operation of logistics service providers and to harmonize approaches of regional member countries with a view to raise the profile of freight forwarders, multimodal transport operators and logistics service providers as professionals in and an integral part of the professional transport industry

Outputs:

1. The publication of codes of conduct and minimum standards based on best practices and experience in registration requirements and liability regimes for the operations of freight forwarders, multimodal transport operators and logistics service providers

Indicators of achievement:

1. Countries incorporate aspects of the codes and standards in the rules of their national industry associations, national regulations and legislation

Development of logistics service centres

Immediate objective: To promote the development of efficient logistics service centres and industrial clusters throughout the region

Outputs:

1. The publication of research and study findings on corridor development and best practices for the operation of logistics service centres
2. Subregional and regional seminars and workshops, including representatives of the public and private sectors to discuss research findings and to share opinions and experiences

Indicators of achievement:

1. Countries participate in research and contribute information on latest developments and best practices for the development of logistics service centres
2. Countries involve both public and private sector stakeholders when planning the operations of logistics service centres and industrial clusters

Promoting partnerships and exchange of experiences within the region

Immediate objective: To create local, subregional, regional and international networks to strengthen the logistics service industry's capacity to create partnerships, share experiences and improve its competitiveness

Outputs:

1. Regional meetings of national freight forwarders, multimodal transport operators, logistics service providers and shipowner associations
2. The sharing of private sector experiences with Governments through meetings and publications

Indicators of achievement:

1. Exchange of experience and best practices are documented, partnerships are created
2. Issues of common interest are identified in order to be brought to the attention of Governments for consideration

Capacity-building in logistics

Immediate objective: To enhance national competencies and skills within the logistics industry through sustainable education programmes that target freight forwarders, multimodal transport operators, logistics service providers and civil servants

Outputs:

1. Seminars on the role and development of the logistics industry for senior government officials
2. Training of trainers workshops and seminars, with training material developed by the secretariat of ESCAP, to develop national capacities and skills
3. Support provided to Governments for the establishment of national sustainable programmes on multimodal transport and logistics

Indicators of achievement:

1. Government policies reflect awareness of the need of the logistics industry to provide efficient services
2. Local trainers deliver and implement training programmes to enhance national competencies and skills in multimodal transport and logistics
3. Countries establish sustainable training programmes on multimodal transport and logistics

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