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Major issues in transport: creating an enabling environment for facilitating international transport and logistics

Creating an enabling environment for facilitating international transport and logistics

Note by the secretariat

Summary

The present document contains a summary of recent key developments in cross-border and transit transport by road and rail in the region. In the document, there is an emphasis on the importance of practical implementation of the Regional Strategic Framework for the Facilitation of International Road Transport, which was adopted by the Ministerial Conference on Transport in March 2012 and which provides overall guidance for member countries and their development partners to address the challenges in international transport and logistics through elaboration of common approaches that could be implemented by countries in a more coordinated way. The activities of the secretariat to promote implementation of the Framework are also highlighted.

The growing role of various innovative ways to use new technologies is also emphasized in the document. In particular, information and communications technology, for improving the efficiency of international transport and logistics, is highlighted as one of the important measures in creating an enabling environment for the facilitation of transport and improving logistics performance. The document contains a description of the four models developed by the secretariat in response to the move to use new technologies to help overcome the non-physical barriers to the smooth and efficient flow of people and goods across land borders; the activities undertaken by the secretariat to promote the application of these models are also presented. The comments of member countries on the models and their application are requested.

The document also contains a proposal to establish sustainable accredited training systems for freight forwarders, multimodal transport operators and logistics service providers in the region as another important component in creating an enabling environment for the facilitation of international logistics. Guidance is sought on their further development, as well as on proposals for introducing the systems into member countries.

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I. Introduction

1. Regional connectivity has been a main theme for most developing member countries in the Asia-Pacific region during the past decade. Transport-led regional connectivity plays a key role in regional and subregional integration, economic and trade cooperation, closing the development gap and sustainable development.

2. Infrastructure, as the “hardware” of connectivity, has for the most part improved significantly in the region. However, facilitation of cross-border and transit transport, namely the “software” of connectivity, has improved at a much slower pace than infrastructure development. In fact, it has become a significant barrier to regional and subregional connectivity.

3. The overview of development of cross-border and transit transport in Asia provided in the present document shows that much remains to be done in order to achieve effective “international” land transport across the region — together with connections to other regions — due to the extreme difficulties caused by various non-physical barriers. For most subregions, although physical infrastructure connectivity is in place, cross-border and transit transport either relies on transloading at border crossings or is expensive and time-consuming.

4. The present document contains a summary of the main measures taken by some of the member countries to overcome these difficulties. Details are also given of a set of mutually supported frameworks and tools for creating an enabling environment in order to facilitate international transport and logistics.

5. The latest technological developments, in particular information and communications technology (ICT), can help improve significantly the efficiency of border-crossing procedures and logistics. A number of developing member countries in the region have successfully introduced them into the transport and logistics sectors. The present document contains details of various ways in which new technologies in transport facilitation and logistics can be used.

6. Capacity-building is one of the fundamental pillars of the logistics industry. A proposed regional standard for training logistics service providers, as briefly summarized in the present document, will help achieve the same professional standards and use of terminology in this knowledge-intensive industry.

II. Development of international road transport in Asia

A. Status and challenges of international road transport

7. The degree to which border crossings and domestic routes for international road transport are open varies from country to country in the region. Among the 32 member countries of the Asian Highway Network, five countries have not opened cross-border transport operations mainly due to geographical constraints, four countries rely totally on transloading near border crossings and six countries partly rely on transloading near border crossings with certain neighbouring countries. The use of transport permits with designated routes is popular for cross-border transport. Meanwhile, there are also examples of bilateral or trilateral arrangements to allow cross-border movements by road without the need for transport permits, such as between Armenia, the Islamic Republic of Iran and the Russian Federation, and between the Lao People’s Democratic Republic, Thailand and Viet Nam.

8. In general, international road transport in the region continues to face numerous non-physical barriers, which significantly increase costs, travel times and uncertainty, and impede operational transport connectivity. The key common non-physical barriers in the region are the following:

- (a) Limited geographical scope for international road transport;
- (b) Continual transloading activities at/near border crossings;
- (c) Frequent use of single-trip transport permits;
- (d) Difficulties in arranging temporary importation and insurance of vehicles;

- (e) Difficulties for drivers in obtaining visas;
- (f) Less harmonized documentation, standards, formalities and procedures;
- (g) Complicated formalities and procedures for crossing borders;
- (h) Insufficient facilities and equipment at border crossings;
- (i) Shortage of skilled professional drivers.

B. Measures taken by member countries and development partners to address challenges in international road transport

9. Member countries and their development partners have made great efforts to reduce or eliminate non-physical barriers to international road transport. Measures include participation in international transport facilitation conventions, formulation and implementation of subregional and bilateral agreements, and improvements in efficiency at border crossings.

10. In 1992, the Commission adopted resolution 48/11 on road and rail transport modes in relation to facilitation measures, in which it recommended that countries in the region, if they had not already done so, consider the possibility of acceding to seven core international conventions related to transport facilitation.¹

11. Recent progress in this regard includes the accession in 2011 of Azerbaijan to the Convention on Road Signs and Signals and Tajikistan to the International Convention on the Harmonization of Frontier Controls of Goods. This means that Azerbaijan has joined Kyrgyzstan and Uzbekistan as the only countries in the region to have acceded to all seven conventions recommended in resolution 48/11. It also means that Tajikistan has now acceded to five of the seven conventions.

12. The member States of the Shanghai Cooperation Organization, with the assistance of the secretariat, concluded their negotiations on the draft agreement between the Governments of the Shanghai Cooperation Organization member States on facilitation of international road transport and its annexes in June 2012. Initially, about 15,500 kilometres of roads are to be opened as a consequence of this agreement, including a road from Lianyungang, China, to Saint Petersburg, Russian Federation. Under the agreement, two seaports in China and the Russian Federation can be used by transit traffic from Central Asian countries.

13. In 2012, the Lao People's Democratic Republic, Thailand and Viet Nam concluded an amended memorandum of understanding to extend the routes of the East-West Economic Corridor to their capital cities. The purpose of this move was to expand the geographical scope of transport services and offer more flexible choices of transport routes for operators.

¹ Convention on Road Traffic (Vienna, 8 November 1968); Convention on Road Signs and Signals (Vienna, 8 November 1968); Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention) (Geneva, 14 November 1975); Customs Convention on the Temporary Importation of Commercial Road Vehicles (Geneva, 18 May 1956); Customs Convention on Containers (Geneva, 2 December 1972); International Convention on the Harmonization of Frontier Controls of Goods (Geneva, 21 October 1982); and Convention on the Contract for the International Carriage of Goods by Road (CMR) (Geneva, 19 May 1956).

14. China and Mongolia renewed their agreement on international road transport, together with its protocol, in June 2011. The renewed agreement opened 36 transport routes through 13 border crossings between the two countries. The agreement also introduced long-term multiple entry permits for the carriage of goods, in addition to short-term, single-entry permits.

15. China and Viet Nam amended their bilateral agreement on road transport in October 2011 and signed a new protocol for the implementation of the agreement in May 2012. The extent to which foreign carriers can pass the frontier has been extended from about 20 kilometres to major inland cities in two provinces and one autonomous region of China, and six provinces of Viet Nam. Actual operations were inaugurated in August 2012. Through this amendment to the agreement and the new protocol, Chinese vehicles may travel to Hanoi and the seaport of Hai Phong in Viet Nam. Meanwhile, Vietnamese vehicles now have access to important economic centres in China, such as Guangzhou, Shenzhen, Kunming and Nanning.

16. China and Mongolia introduced pilot implementation of a unified customs manifest in November 2011 as a first step towards joint customs control between the two countries. Within one year, the customs authorities processed 180,000 unified customs manifests. After successful implementation, the pilot project was extended to the major border crossings between the two countries. Electronic data exchange was proposed to further simplify formalities at border crossings.

17. In April 2012, India opened its first modern integrated checkpoint at the border with Pakistan. It was part of the Government's plan to build 13 such checkpoints at its borders with Bangladesh, Myanmar, Nepal and Pakistan. The purpose of this plan was to enhance security and facilitate trade and transport between India and its neighbouring countries. An integrated checkpoint provides a single complex that is equipped with modern technologies; it houses all the control authorities, such as immigration, customs and quarantine, together with services, such as banks, clearing agents and cafeterias, and cargo facilities, including cargo inspection sheds, warehouses, parking and cargo processing. A dedicated authority, namely the Land Ports Authority, has been set up to provide administration, coordination and management of integrated checkpoints nationwide.

18. In August 2012, Kazakhstan and Kyrgyzstan began joint customs control at border crossings in a significant move towards simplification of border formalities and procedures. This measure provides for a single-stop inspection of vehicles, goods and passengers at border crossings. It was a result of the Agreement between the Government of the Republic of Kazakhstan and the Government of the Kyrgyz Republic on Joint Control at the Kyrgyz-Kazakhstan Borders, which was signed in 2006.

19. Kazakhstan and the Russian Federation together with Belarus formed a customs union in 2010. The customs union was launched as a first step towards broader economic integration for the three countries. The member States have removed the customs borders between each other. This move will significantly facilitate international road transport among the participating countries.

20. The Turkish Customs and Tourism Enterprises Co. Inc., formed in association with the Union of Chambers and Commodity Exchanges of Turkey and 137 individual chambers and commodity exchanges, began modernizing Turkish border crossings based on the principle of "build, operate, transfer". The private sector rebuilt facilities and provided inspection equipment for both the authorities and the public. It operated on a commercial basis. Up until June

2011, eight border crossings had been modernized and seven others were being renovated. Joint control was also planned to improve efficiency of clearances and inspection.

C. Regional Strategic Framework for the Facilitation of International Road Transport

21. Despite many measures taken by member countries and their development partners to address non-physical barriers, safe, smooth and efficient international road transport continues to be plagued by various impediments.

22. Lack of a long-term vision for and comprehensive approach to transport facilitation in the region led to many facilitation efforts being carried out in relative isolation. These efforts yielded fragmented results, created new barriers due to conflicting agreements, projects and measures, and had a minimal impact on transport facilitation in the region.

23. Given the need to provide a strategic vision and common approach to address the many challenges to international road transport in the region, the Ministerial Conference on Transport, held in Bangkok in March 2012, adopted the Regional Strategic Framework for the Facilitation of International Road Transport.²

24. Six fundamental issues for the facilitation of international road transport are identified in the Regional Strategic Framework, which also specifies long-term targets together with a process to achieve them. Seven modalities for addressing the challenges to smooth and efficient road transport in the region are also identified.

25. The six fundamental issues cover: (a) road transport permits and traffic rights; (b) visas for professional drivers and crews of road vehicles; (c) temporary importation of road vehicles; (d) insurance of vehicles; (e) vehicle weights and dimensions; and (f) vehicle registration and inspection certificates. The seven modalities include: (a) building an effective legal regime; (b) wider application of new technologies; (c) development of professional training for international road transport; (d) establishment/strengthening of national facilitation coordination mechanisms; (e) promotion of joint control at border crossings; (f) promotion of economic zones at border crossings, dry ports and logistics centres; and (g) further application of facilitation tools.

26. The Framework will serve as a primary policy document on transport facilitation initiatives for member countries and their development partners to increase coordination among different facilitation agreements, projects and measures in order to avoid inconsistency and conflicts in planning, formulation and implementation, and thereby increase the effectiveness of facilitation efforts. The synergistic effect of such facilitation measures will benefit member countries and their development partners.

27. Implementation of the Framework will contribute significantly to the achievement of regional and subregional transport connectivity. In doing so, it will help improve road safety, transport security and efficiency. In addition, it will help reduce transport costs and inordinate delays, including at border crossings, and help in controlling pollution as well as vehicle emissions caused by long transit times and the large number of empty runs.

² See E/ESCAP/68/9, chap. I, annex.

28. After adoption of the Framework, the secretariat created a webpage at www.unescap.org/ttdw/common/TFS/RSF/RSF.asp. In addition, a flyer was prepared and circulated at relevant international events.

29. At the International Road Transport Union's 7th Euro-Asian Road Transport Conference and Ministerial Meeting held in Amman, on 12 and 13 June 2013, the Framework was included in the Joint Statement on the Results of the Coordination Meeting between the Heads of International Organisations and Financial Institutions on the Future Development of Transport Linkages between Europe, Asia, Middle East and Africa.

30. The secretariat also promoted the Framework as a useful tool in the formulation of a proposed subregional master plan for enhancing transport connectivity at the Policy Dialogue on Strengthening Transport Connectivity among the South and South-West Asian Countries, which was held in Dhaka on 26 and 27 June 2013. The Policy Dialogue welcomed the secretariat's proposal to formulate a master plan for strengthening transport connectivity in South and South-West Asia and was of the opinion that such a connectivity plan should cover not only strengthened connectivity among the countries of the region but also their connectivity with other subregions.

31. As part of the Framework process, the Regional Network of Legal and Technical Experts on Transport Facilitation has been established.³ The Network is a key modality for building an effective legal regime and technical capacity for transport facilitation in the region. It is aimed at assisting member countries in increasing the professionalism of their officials and experts involved in transport facilitation, providing legal support for accession to international facilitation conventions, formulating relevant agreements, measures and projects, and promoting the harmonization and coordination of different legal instruments on transport facilitation.

32. As of 30 June 2013, more than 80 officials and experts from 27 member countries had applied for membership of the Network and seven studies on transport facilitation had been commissioned. The first regional meeting of the Network together with a workshop on inter-subregional cooperation are planned to be held in Bangkok in December 2013.

III. Development of international railway transport in Asia

33. International railway transport is constrained by missing infrastructure links in Asia. The use of railways for intercountry transport varies among member countries according to the physical connections that are available. In most parts of North-East and Central Asia, railways are used extensively for international transport. Such transport links also extend to Europe. In other subregions, railways are used in a relatively limited way for intercountry transport, both in terms of traffic volume and distances travelled.

34. The major challenges for international railway operations in the region include the following factors:

- (a) Congestion and delays at stations where the gauge of the track changes;
- (b) Different legal regimes;
- (c) Difficulties for drivers and crew in obtaining visas;

³ www.unescap.org/ttdw/common/TFS/LegalNetwork/Legal-Network.asp.

- (d) Lengthy procedures for crossing borders;
- (e) Lack of harmonization in the documents that are required by different countries;
- (f) Inspections on both sides of border crossings;
- (g) Different technical standards for rolling stock, power supply, braking systems and signalling systems;
- (h) Different operating rules and tariff structures;
- (i) Different requirements for train drivers and crew.

35. Many initiatives have been seen to be effective in expanding the use of railways in international transport over recent years.

36. After the opening of the container train operation between Chongqing, China, and Duisburg, Germany, via Kazakhstan, the Russian Federation, Belarus and Poland, in October 2010, a number of international connections have been opened, such as: Wuhan, China, to Pardubice, Czech Republic, in October 2012; Qingdao and Lianyungang (in December 2012)/Harbin and Ningbo (in January 2013), China, to Horgos (on the border with Kazakhstan); and Chengdu, China, to Łódź, Poland, in April 2013.

37. In South Asia, Bangladesh, India and Nepal are planning a test run of a container train through the three countries sometime in 2013.

38. In August 2012, a memorandum of understanding on cooperation — in particular as concerns transportation and the promotion of the 6,566-kilometre-long Istanbul-Tehran-Islamabad freight line — was signed by the Governments of the Islamic Republic of Iran, Pakistan and Turkey. The line has the potential to be extended to other Central Asian and European countries.

39. At the Third International Rail Business Forum “1520 Strategic Partnership: Central Asia”, which was held in Astana from 12 to 14 November 2012, Russian Railways announced a plan to establish a joint venture among the railway companies of Belarus, Kazakhstan and the Russian Federation to provide transport within a “unified economic space”.

40. A common consignment note was prepared under a joint project run by the International Rail Transport Committee and the Organization for Cooperation between Railways to bridge the practical differences between the regimes of the International Convention concerning the Carriage of Goods by Rail (CIM) and the Agreement on International Railway Freight Communications (SMGS). The Organization for Cooperation between Railways has been organizing seminars and workshops to promote the common consignment note. On 21 February 2012, the Organization ran a seminar in Beijing on the practical use of the common CIM/SMGS consignment note in Euro-Asian rail freight traffic. Transport between Asia and Europe increasingly uses the common CIM/SMGS consignment note.

41. The Economic Commission for Europe has proposed a new initiative to unify the different systems in Europe and the Euro-Asian transport corridors. In March 2011, the Commission’s Inland Transport Committee approved the vision and strategy laid out in a position paper entitled “Towards unified railway law in the pan-European region and on Euro-Asian transport corridors” (ECE/TRANS/2011/3). It contains a step-by-step approach, starting with the preparation of a memorandum of understanding, a resolution or a declaration on general terms, and conditions for Euro-Asian rail transport contracts,

including a common consignment note, followed by model regulations for international rail transport, before concluding with an international convention on international rail transport.

42. The Inland Transport Committee's Ministerial Meeting on "Making the Euro-Asian Transport Network Operational", which was held in Geneva, Switzerland, from 26 to 28 February 2013, adopted a Joint Declaration on the promotion of Euro-Asian rail transport and activities towards unified railway law (see ECE/TRANS/2013/2). In the Joint Declaration, Ministers expressed a desire to establish a unified set of transparent and predictable provisions and legal rules for Euro-Asian rail transport operations in all countries concerned and to develop unified international railway law with the objective to allow rail carriage under a single legal regime from the Atlantic to the Pacific.

43. The secretariat has been conducting a study on the facilitation of international railway transport since December 2012. The objectives of the study are to identify issues/areas of cooperation and coordination among member countries, which will lead to a regional strategy/framework for the facilitation of international railway transport. The study will include legal, institutional and technical issues to improve the capacity of railway authorities, railway operators and border control authorities to formulate policies and plans for the facilitation of international railway transport. The study is expected to be completed by the end of 2013. A regional meeting will be organized in 2014 to evaluate the findings and recommendations of the study.

IV. Use of transport facilitation tools to help address non-physical barriers

44. In order to support intercountry initiatives to improve the efficiency of international transport by road and railway and overcome the existing difficulties in international land transport, the secretariat developed three transport facilitation models in 2011-2012, namely: Efficient Cross-border Transport Models, the Secure Cross-border Transport Model and the Model on Integrated Controls at Border Crossings. The three models, together with the Time/Cost – Distance Methodology introduced by the secretariat in 2004, provide a complete set of facilitation tools in planning, implementing and monitoring the effects of facilitation measures or projects along a corridor or a group of countries.

45. Efficient Cross-border Transport Models provide a methodology to assess more efficient transport arrangements across borders and options for such arrangements. The Secure Cross-border Transport Model uses combined technologies to provide real-time monitoring en route. The Model on Integrated Controls at Border Crossings helps simplify and streamline procedures at border crossings. The Time/Cost – Distance Methodology can be used to identify barriers and monitor performance. The four models may be used to establish a complete and efficient land transport system or individually to address a particular problem in international land transport.

A. Efficient cross-border transport models

46. The models provide a methodology to evaluate various options for and practical solutions to the difficulties encountered in cross-border land transport operations. With few or no requirements under intergovernmental arrangements as a consequence of these models, goods and passengers can be moved more efficiently across borders.

47. Using the various models, Governments are free to make an overall assessment of the various options for cross-border transport, such as negotiating an agreement or organizing transport using manual transloading, or trailer or container swaps at border crossings. Each assessment should consider the overall cost to Governments and the business sector, operational efficiency, the difficulty of implementation and transport reliability.

48. With recent developments in the trucking industry, the models use the prime mover-trailer system and commercial cooperation to overcome institutional barriers and conflicts of commercial interests in international land transport. They significantly reduce concerns over safety and security because of the entry of foreign vehicles to the region. They can also minimize the need for difficult cross-border arrangements, such as those that concern visas for drivers, driving licences, vehicle insurance, temporary importation of vehicles, vehicle standards and transport permits. Similarly, the models also provide examples of good practice for efficient intercountry railway operations.

49. Information on the models is available at www.unescap.org/publications/detail.asp?id=1511.

B. Secure cross-border transport model

50. The model provides a conceptual basis and standard for the design of cross-border vehicle monitoring systems using new technologies, including ICT, satellite positioning systems, cellular communication systems and electronic seals. The model prescribes standardized components, their interaction and institutional requirements for their application in cross-border transportation.

51. It demonstrates how the use of these technologies can facilitate trade and transport, while responding to the concerns of the control authorities, and giving them the confidence they need to open up more land routes for international transport and to apply simplified procedures. It also allows transport operators to manage safe and efficient operations with real-time tracking information for customers.

52. Information on the model is available at www.unescap.org/publications/detail.asp?id=1498.

C. Model on Integrated Controls at Border Crossings

53. The Model on Integrated Controls at Border Crossings provides more efficient information flows and sharing among various agencies at border crossings by using modern technologies and streamlined processes of documentation and other procedures. It can help minimize the interventions of the various agencies in the process of crossing borders while maintaining tight control.

54. The model considers the procedures at border crossings as information flows, since any border checks require information collection and processing and subsequent decision-making based on the results of such processing.

55. The model offers a new concept in integrated use of ICT-based systems and equipment at land border crossings on the basis of sharing less sensitive information among the border management agencies. The key component of the concept is the Border Crossing Management Information System, which is based on integration of information flows and application of modern equipment and technological solutions to capture and process the required

information concerning goods, vehicles and drivers (crew) crossing land borders, mainly by road.

56. Application of the model will enhance the functioning of all control authorities and expedite their procedures to release vehicles, passengers and goods at border crossings.

57. Information on the model is available at www.unescap.org/publications/detail.asp?id=1509.

D. Promoting the application of transport facilitation tools

58. The secretariat made a presentation on new transport facilitation tools at the World Bank Global Facilitation Partnership for Transportation and Trade Meeting held in Colombo on 1 November 2012, the 3rd Annual Meeting of the CAREC (Central Asia Regional Economic Cooperation) Federation of Carrier and Forwarder Associations, held in Bangkok on 4 and 5 December 2012, and the SASEC (South Asia Subregional Economic Cooperation) Trade Facilitation Week, held in Bangkok from 25 to 28 March 2013.

59. In cooperation with the CAREC Institute and the Governments concerned, the secretariat organized two national workshops on possible application of the facilitation tools in Beijing on 22 November 2012 and in Astana on 28 February 2013.

60. At the Policy Dialogue on Strengthening Transport Connectivity among South and South-West Asian Countries held in Dhaka on 26 and 27 June 2013, the secretariat presented the four transport facilitation tools together with the Regional Strategic Framework for the Facilitation of International Road Transport as part of the formulation of a proposed subregional master plan for enhancing transport connectivity.

61. The Asian Development Bank (ADB) and the secretariat of ESCAP are jointly organizing a Workshop on Secure and Efficient Cross-border Transport for the SASEC Programme in Bangkok from 9 to 11 October 2013. The workshop will explore the possibility of applying the Secure Cross-border Transport Model and the Time/Cost – Distance Methodology to cross-border and transit transport among the SASEC countries.

V. Harnessing information and communications technology together with other technologies in the facilitation of international land transport and improvements in the efficiency of logistics

A. Real-time tracking of vehicles and goods

62. Developments in ICT, satellite positioning systems, cellular communication systems, radio-frequency identification technology and geographical information systems offer tremendous potential to deal with major challenges in cross-border and transit transport. Combined use of these technologies can secure and track vehicles and goods in real time, thereby allowing control authorities, transport companies and shippers to take timely action. Meanwhile, such use provides an opportunity for carriers to enjoy simplified formalities and a greater range of operations across borders.

63. Many countries in the region use either all or some of these technologies in various aspects of transport. For example, China and Viet Nam

have made installation of satellite positioning systems compulsory for vehicles carrying passengers or dangerous goods. Such devices are also required for transit transport in the new agreement on transit between Afghanistan and Pakistan. Electronic seals (e-seals) are being used extensively to secure and track the movement of containers in China, the Republic of Korea and Thailand. The customs authorities in Shenzhen, China, and Hong Kong, China, and Thailand are using tracking systems based on these technologies to facilitate the movement of bonded goods between customs stations and for the transport of containers from inland places to border crossings.

1. Use of electronic seals and tracking with satellite positioning systems in China

64. Shenzhen Customs introduced the Trans-customs Express Clearance system in 2007. The objective of the project was to expedite the clearance of vehicles at land ports and at the same time ensure secured control of goods and vehicles in transit. Currently, two separate systems are used by the customs authorities of mainland China and Hong Kong, China, respectively.

65. In mainland China, it was reported that 3,300 vehicles used the system in April 2011. Fast lanes for such users have been opened at checkpoints. The transport operators that use the system are required to register with the customs authorities based on specified criteria. The vehicles or containers that use this system need to meet the specifications set by the customs authorities. As reported by officials from Shenzhen Customs, the system — together with advance submission of documents — reduced overall clearance time from between two and three hours to one hour. At the checkpoint, the system takes a few minutes to clear a vehicle.

66. In Hong Kong, China, the system, named the Intermodal Transshipment Facilitation Scheme, was launched in 2010 for use at airports and seaports for onward transport by road to land ports. The cargo is inspected only once, either at the airport or at the land ports. The users have to register with the customs authorities and use accredited electronic seals and satellite positioning systems equipment in their vehicles, which are also registered in the Road Cargo System.

2. Use of radio-frequency identification technology seals and Internet-based tracking in Thailand

67. In 2006, TIFFA⁴ EDI Services Co. Ltd., a value-added network provider, partnered with a team of Singapore-based engineers (currently with Ascent Solutions) to launch a Secure Free Zone project. The project was supported by Royal Thai Customs, and sponsored by Western Digital (Thailand) Co. Ltd. The purpose of the project was to facilitate movement of customs-bonded goods among the free trade zones. Western Digital worked with Royal Thai Customs and TIFFA EDI Services to design and deploy the electronic cargo-tracking system. The project was implemented in phases. Phase 1 of the project provided electronic cargo tracking and surveillance between the free trade zones. In August 2009, Western Digital and Royal Thai Customs initiated Phase 2 of the project — by extending Phase 1 to Suvarnabhumi International Airport. In July 2011, Western Digital and Royal Thai Customs initiated Phase 3 — by extending Phase 1 and Phase 2 processes from Thailand to Malaysia. Recently, it was proposed to extend the system that exists between Thailand and Viet Nam to the Lao People's Democratic Republic.

⁴ Thai International Freight Forwarders Association.

B. Use of technologies at border crossings

68. In addition to technologies related to tracking vehicles and goods, numerous others have also been widely adopted at border crossings, such as vehicle/container scanners, automatic vehicle/container recognition systems, automatic radiation detection systems, automated passport control systems and portable passport readers, automatic systems for measuring vehicle weights and dimensions, automatic health-check equipment and portable detection and laboratory test equipment. The most comprehensive application of new technologies at border crossings is at electronic border crossings. However, most electronic border crossings have not been well integrated with the results from inspection equipment and other control authorities.

69. The main objectives of inspections using vehicle/container scanners are the following:

- (a) To expose fraudulent declarations of goods;
- (b) To prevent the smuggling of drugs, arms and ammunition, weapons, historical and cultural artefacts, poisonous substances, furs, tobacco and other sensitive commodities.

70. The scanners are mostly used by customs authorities. A number of large border crossings are equipped with fixed vehicle scanners and even freight train scanners. Other, less busy, border crossings are equipped with mobile vehicle scanners.

71. Automatic vehicle/container recognition systems are used mainly at seaports. The introduction of such systems to land border crossings has been limited but there is great potential to improve the efficiency of clearances at land border crossings.

72. The systems typically used can capture images of container codes and/or vehicle licence plate numbers in real time, and then encrypt and transmit them to computerized operating systems. At the same time, the images of licence plate numbers or container codes can be displayed on the screen of the officer operating the system at the border crossing. The officer can thus remain at the workstation and does not need to approach the vehicle or container to take note of the licence plate number or code, nor input it into the computer system. Cross-referenced with the relevant database, a licence plate number can be used to verify the country of the vehicle (container) registry, the carrier's previous export/import operations, transport permit and operating licence, as well as the driver's records. The database may also contain information about the carrier's previous infringements. Risk assessment and decisions regarding the appropriate control measures for a particular vehicle can thus be made. In some cases, intelligent cards containing electronic information about vehicles are used for vehicle recognition.

73. In the main, China uses electronic border crossing systems for customs clearances. With the use of intelligent cards at border crossings and advanced electronic declaration, vehicles not requiring a physical inspection can be automatically released within a few seconds at the border gate. As of the end of 2012, most large land border crossings in China employ automatic clearance and release systems. In Ruili, Yunnan Province of China, such systems were launched in May 2011. In Manzhouli, Inner Mongolia Autonomous Region of China, more comprehensive automatic vehicle clearance systems were developed in 2012. Moreover, this system is set to be expanded from just the customs authorities to the Administration of Quality Supervision, Inspection and Quarantine.

C. Use of information and communications technologies for improved efficiency and effectiveness in logistics

74. As economic globalization continues, large quantities of goods are flowing into the international supply chain, and transport providers need to offer high-quality logistical services to satisfy the demands of customers. The development of ICT has provided numerous opportunities to improve and integrate the processes involved in electronic logistics, both internationally and domestically.

75. Electronic logistics provide a dynamic set of communication, computing and collaborative technologies that transform key logistical processes into customer-centred operations by sharing data, and transferring knowledge and information electronically with supply chain partners. The ultimate objective of electronic logistics is to deliver the right products in the right quantities at the right place and time to the right customer. The functions of electronic logistics include, among others, order forecasting, interactive tracking, inventory alerts, performance evaluation and report notification. Additionally, a transport plan from a visual logistics system can be converted into an “event list” with links to exception alerts.

76. The state of development of electronic logistics systems varies widely in the Asia-Pacific region, with some countries having well-developed systems while others are still in the early stages of rolling out such systems.

1. National electronic logistics networks

77. In China, a national electronic logistics network was started in 2009. The system, named the National Transport and Logistics Information Platform, is an electronic data exchange network developed by the Ministry of Transport and the authorities in Zhejiang Province, with the participation of the business sector. It provides an interface for logistics information-sharing and querying. Participation in the network encourages companies and other logistics partners to harmonize their internal data management systems to comply with the framework and standards provided by the network, through which individual users can access and share information relevant to the supply chain, thus increasing its transparency and efficiency.

78. In Indonesia, the National Logistics System Blueprint, which was approved in 2012, outlines the integration of the National Single Window (incorporating Government to Government and business to Government interaction) with an advanced customs system and an e-trade logistics system (offering a business to business interface). The National Integrated Trade, Logistics and Intermodal Transport Messaging Hub system will therefore bring together both the trade system (flow of documents) and the port system (flow of goods). The expected benefits include both faster export/import document clearance, and accelerated cargo handling of export/import goods traffic.

79. In Nepal, a special Logistics Management Information system was introduced into the health sector in 2000; it was upgraded in 2011 with a web-based logistics management information and mailing system. It provides support for a more efficient supply chain for medicines, vaccines, equipment and other essential materials.

80. In the case of the Republic of Korea, to support the development of e-trade in general and electronic logistics in particular, an enabling legislative framework was introduced. This included enactment of an e-Trade Facilitation Act, a Digital Signatures Act and an Electronic Transaction Act, together with

amendment of the Foreign Trade Act and customs law. The logistics network's shipping and port business solution included establishing a port management information system, a container terminal operations system, a general cargo terminal operations system and a port logistics system for maritime business.

2. Subregional initiatives related to electronic logistics systems

81. Supply chains and transport operations are becoming increasingly complex. At the same time, the increasing use of ICT in all aspects of life creates an expectation of instantaneous information and transparent processes. However, to achieve this requires considerable effort in terms of information management. To ensure the visibility of the entire supply chain, it is necessary for private companies to connect with other information nodes such as ports, terminals and other companies, and set up a system of information-sharing. Without a unified information system, all these connections need to be made separately, with different interfaces. In the case of tracking containers, for example, a company may have to connect its management system to hundreds of ports around the world merely to achieve visibility in the maritime shipping phase alone. This results in heavy workloads, low efficiency, high costs and inconsistencies. Subregional initiatives have been observed to increase cooperation for more efficient international logistics.

82. The Third China-Japan-Korea Ministerial Conference on Transport and Logistics, in 2010, established the Northeast Asia Logistics Information Service Network (NEAL-NET). NEAL-NET was designed as a cooperation mechanism, to promote sharing of logistics information among the North-East Asian countries. The primary mission of NEAL-NET is to unify the basic standards of logistics information exchange, in addition to promoting research and technical exchange among participating countries. NEAL-Net members cover a range of stakeholders in the logistics system, including logistics companies, ports, research institutes, information technology vendors, associations, government agencies and academic institutions.

83. In order to achieve a unified interface, the logistics chain was broken down into nodes (for example, ports), with specified objects (such as containers or vessels) and events (for example, estimated time of arrival). For each node, the data items to be shared were identified and a code set agreed for each data item. In the process of coding, priority was given to compliance with existing international standards. The interface was then implemented in the participating ports.

84. In addition to reducing the cost of information-sharing through unified standards, NEAL-NET aims to increase the timeliness of the information provided. Under the traditional system, a relay-relay system was in place for information management, meaning that information was passed from one stakeholder to another, for example from a port to a shipping agent and subsequently a shipping company. Under the integrated system, information can be shared directly, thus reducing delays. Currently, the NEAL-NET system focuses mainly on maritime transport, although there are plans to extend it to other modes of transport in the future.

85. In cooperation with the Ministry of Transport of China, the secretariat organized the Regional Seminar on Development of Efficient and Effective Logistics Systems, which was held in Hangzhou, China, on 7 and 8 May 2013. The seminar focused on the use of ICT in improving the efficiency of logistics services. Among various suggestions, the seminar recommended that the secretariat undertake a study to support the development of regional standards for data-sharing in the application of ICT to logistics services.

VI. Establishment of sustainable accredited training systems to enhance national capacity in the logistics industry

86. Operators in the logistics industry face a complex market filled with many different practices and regulations, involving international law, economics, finance, trade and transport. As a consequence, the development and maintenance of skills and knowledge is of great importance in delivering professional and competent services. Much of the required learning takes place at work, but relevant training programmes can offer useful knowledge and skills for professionals in the field. Some universities run programmes on transport and logistics that are of great relevance to the industry. Industry associations have also played a very active role in promoting and organizing training.

87. The diploma course of the International Federation of Freight Forwarders Associations (FIATA) has long been recognized by industry. For this reason, industry associations in many countries encourage their members to take the FIATA training course in order to obtain the FIATA diploma. In addition, short-term training programmes, ranging from one weekend (two days) to several weekends, and long-term training are organized.

88. Despite the substantial progress made in offering training on freight forwarding and logistics in some member countries, challenges remain in the establishment of long-term and regular training programmes with appropriate accreditation and wider recognition across the region. The majority of training is organized on an ad hoc basis, with no clear pathway from basic training, such as a two-day introductory course, to the FIATA diploma. Many countries in the Asia-Pacific region do not have the capacity to introduce the FIATA programme. The lack of a certified training programme for middle-level professionals that is recognized by industry, Governments and international partners is hampering progress in raising the quality of human resources and services. The key solution for appropriate accreditation is therefore the establishment of a regional standard for regular training programmes to close the gap between introductory training and the highest-level training on the FIATA diploma course.

89. In this context, the secretariat has developed an accredited training system for freight forwarders, multimodal transport operators and logistics service providers, so as to propose the way forward in further enhancing regional training and capacity-building in member countries.

90. The proposed training system is divided into three levels, namely introductory, advanced and diploma levels (as outlined in the table below). The syllabuses of the courses are to be developed jointly by the secretariat and national experts, in cooperation with FIATA, and in principle will follow the FIATA diploma modules, while taking into account national and regional characteristics and practices.

91. With no rigid restrictions on entry at the introductory level, trainees gain a broad knowledge of the industry. At the advanced levels, there are seven stand-alone certificate courses. A trainee may take one or more than one course, depending on its relevance and the available resources. At the same time, the national industry can prioritize those certificates that are most in demand in the national context. The completion of all certificates prepares the candidate for the third level, the FIATA diploma. At each level, trainees are required to pass an exam in order to obtain a certificate. A model certificate is shown in the annex.

92. The courses and certification examinations are delivered by national logistics training centres and accredited by the relevant government agencies responsible for vocational training based on regional standards. Running the training courses regularly would lay the foundation for introducing the diploma course on a nationwide basis. The course also complements the former Programme on Training Development in the Field of Maritime Transport of the United Nations Conference on Trade and Development, while expanding the scope of training to cover all modes of transport.

93. The establishment of a regional training system can contribute towards a more sustainable and consistent approach to training across the Asia-Pacific region. Reaching a common understanding on training standards can also promote mutual recognition of national training systems and support regional cooperation for developing capacity in the logistics industry. In addition to assisting Asia-Pacific countries in developing training courses, training materials and training plans, the secretariat may further strengthen its training-of-trainers programme to help countries develop a pool of professional and competent trainers and thus enhance the quality of the training programme.

Table
Proposed regular trainings in the region

FIATA^a diploma	Over 300 hours according to the latest requirements						
<i>Advanced level</i>	Certificate course on water transport	Certificate course on land transport	Certificate course on air transport	Certificate course on multimodal transport and insurance	Certificate course on carriage of dangerous goods	Certificate course on customs procedures and safety and security	Certificate course on logistics, supply chain management and ICT ^b
	Equivalent to FIATA modules 2, 3 and 8	Equivalent to FIATA modules 6 and 7	Equivalent to FIATA module 5	Equivalent to FIATA modules 4 and 11	Sea (24) air (24) + road (3) + rail (3)	Equivalent to FIATA modules 9 and 13	Equivalent to FIATA modules 10 and 14
	Total hours 65 + 3 (test) = 68	Total hours 70 + 3 (test) = 73	Total hours 50 + 3 (test) = 53	Total hours 31 + 3 (test) = 34	Total hours 54 + 3 (test) = 57	Total hours 40 + 3 (test) = 43	Total hours 42 + 3 (test) = 45
<i>Introductory level</i>	Foundation course on freight forwarding, multimodal transport and logistics (FIATA module 1, 30 hours (training) + 3 hours (test) = 33 hours)						

^a International Federation of Freight Forwarders Associations.

^b Information and communications technology.

VII. Issues for consideration

94. The delegations may wish to share information on the progress made in the field of transport facilitation and logistics at the national level.

95. The Forum may also wish to provide the secretariat with guidance on its future work for the following purposes:

- (a) To assist members and associate members in the implementation of the Regional Strategic Framework for the Facilitation of International Road Transport;
- (b) To enhance regional cooperation for facilitation and expanded use of international railway transport;

- (c) To further develop transport facilitation tools and promote their applications;
- (d) To promote the use of ICT and other technologies in the field of transport facilitation and logistics, and enhance regional cooperation in this regard;
- (e) To introduce sustainable accredited training systems for the logistics industry in members and associate members.

