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Committee on Transport

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Major issues in transport**Facilitating transport and logistics in the era of sustainable development****Note by the secretariat***Summary*

There is a renewed urgency regarding the facilitation of transport and logistics with respect to the 2030 Agenda for Sustainable Development. Operationalizing an integrated intermodal transport system that enhances the sustainability of transport at the regional level, however, is inherently challenging and requires sustained efforts by member countries on multiple fronts. The present document contains a summary of recent important developments in facilitating transport in the Economic and Social Commission for Asia and the Pacific region, and a summary of the activities of the secretariat in support of regional transport operational connectivity to enhance intra- and interregional trade and people-to-people connectivity.

The document provides information on some of the persistent and emerging challenges to facilitating transport and logistics in the region, including how to meet the increasing demands for mobility sustainably, and includes suggestions for how to address them. With a view to strengthening transport operational connectivity in the region, the importance of further efforts to increase the efficiency of international road and rail transport and the integration of transport modes is reiterated. In order to achieve the efficient integration of transport modes, the operationalization of integrated intermodal transport corridors and the harmonization of rules and regulations for intermodal interchanges are suggested. The importance of leveraging the use of new technologies to facilitate transport and logistics and of building and strengthening partnerships with subregional organizations and multilateral development banks is also emphasized.

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** ESCAP/CTR/2018/L.1.

I. Introduction

1. Transport is critical to economic development. The creation of wealth in the past few centuries has happened concurrently with the rapid strides made in the transport arena. Though transport continues to contribute to economic development, its negative externalities have become increasingly apparent. Transport contributes to a quarter of global emissions, of which road contributes three quarters. Road accidents are a major challenge for every country around the globe, and road congestion and air pollution are an increasing concern for all developing countries, illustrating that the way in which transport is evolving is not sustainable.

2. The adoption of the 2030 Agenda for Sustainable Development clearly shows the need to make transport more sustainable for it to contribute effectively to the attainment of the Sustainable Development Goals. Making transport sustainable, however, is a formidable task, as it implies meeting the rising demands for mobility while reducing its negative externalities. This requires a fundamental shift in the way different modes of transport interact to provide sustainable transport solutions. In more concrete terms, it implies the operationalization of integrated intermodal transport systems at the regional level.

3. Operationalizing an integrated intermodal transport system at the regional level involves: (a) enhancing the efficiency of international road transport to reduce the non-physical barriers that continue to constrain cross-border and transit transport; (b) strengthening international railway transport to make international freight trains more reliable, by, inter alia, enhancing the efficiency of railway border-crossing processes; (c) integrating the modes of transport efficiently by harmonizing intermodal interchanges at inland locations, seaports and airports, operationalizing integrated intermodal transport corridors and using new technologies in facilitating transport and efficient transport logistics services to undertake these transport operations.

4. Given the magnitude of the task of operationalizing such a system effectively and efficiently, it would be a long-term task for the countries in the region, requiring sustained efforts by the stakeholders involved on multiple fronts including creating, supporting and harmonizing legal, regulatory and institutional frameworks governing transport and border agencies of the member countries of the Economic and Social Commission for Asia and the Pacific (ESCAP).

5. Working in this direction, the Commission adopted resolution 73/4 on the implementation of the Ministerial Declaration on Sustainable Transport Connectivity in Asia and the Pacific, in which it requested the Executive Secretary to accord priority to the implementation of the Regional Action Programme for Sustainable Transport Connectivity in Asia and the Pacific, phase I (2017–2021), and the activities contained therein aimed at creating an efficient integrated intermodal transport system among the countries in the ESCAP region.

6. Against this background, the present document contains a discussion of some of the persistent and emerging challenges to operationalizing an integrated intermodal transport system and the way forward at the regional level to support the rising demand for mobility in a sustainable manner.

II. Facilitating international road transport

7. The task of facilitating international road transport is inherently challenging as it involves coordination among the stakeholders not only behind the border but also across the border. Given that countries have different capacities in financial, human resources, institutional and other areas, the magnitude of the task at hand becomes evident. Over the past decades, the ESCAP member countries and their development partners have been making continued efforts to facilitate international road transport in the region. The intractable nature of the challenges coupled with the fragmentation of facilitation efforts mean that the results are often patchy and seamless international road transport continues to be a challenge.

8. To provide coherence to these efforts, in 2012, in resolution 68/4, the Commission endorsed the Regional Strategic Framework for the Facilitation of International Road Transport. In the Regional Strategic Framework, six fundamental elements of international road transport are identified along with seven key modalities for facilitating international road transport in the region.¹ The Framework remains a key document to guide countries in their attempts to facilitate international road transport. With the Framework, the secretariat was mandated to take proactive measures to foster cross-border and transit transport across the region in consultation with member States.

A. Recent initiatives on facilitating international road transport in the region

9. In December 2016, the Governments of China, Mongolia and the Russian Federation signed the Intergovernmental Agreement on International Road Transport along the Asian Highway Network, and steps are being taken for its ratification and eventual implementation. The secretariat supported the formulation and the signing of the Intergovernmental Agreement, and has been requested by the countries to support its implementation. In addition, a number of other countries have also expressed interest in joining the Agreement, which is open for accession to all the members of the Asian Highway network.

10. In South Asia, the Governments of Bangladesh, Bhutan, India and Nepal signed a Motor Vehicles Agreement in 2015. While the signatories have been taking steps to ratify the agreement, various trial runs have been organized along selected transport routes to assess the likely challenges with respect to the implementation of the agreement.

11. Moreover, the Governments of countries in South Asia are also making efforts to enhance transport linkages with those in Central Asia. In May 2016, the Government of India signed a tripartite agreement with the Governments of the Islamic Republic of Iran and Afghanistan, and, in February 2018, it joined the Ashgabat Agreement to expand its connectivity options with countries in

¹ The six fundamental elements are: (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 key modalities are: (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.

Central Asia.² In addition, China and India recently acceded to the Customs Convention on the International Transport of Goods under Cover of TIR Carnets to enhance transport connectivity with other countries.

B. Challenges to facilitating international road transport

Vehicles weights and dimensions

12. One of the fundamental issues identified in the Regional Strategic Framework for the Facilitation of International Road Transport as inhibiting seamless international road transport is the divergence in the permissible weights and dimensions of vehicles. These differences lead to extensive delays at border crossings as the transloading and trans-shipment of goods constrains smooth international road transport.

13. For example, country A allows 44 tons on an articulated vehicle, country B allows 38 tons and country C allows 40 tons. This means that trucks from country A must be loaded at a suboptimal level when delivering to country B or when transiting country B to reach country C. Equally, trucks from country B must do more trips when delivering to its neighbouring countries owing to its lower permissible weights.

14. Penalties or fines are usually imposed on the non-complying transport operators, leading to undesirable financial implications. Moreover, overloaded foreign vehicles can cause damage to transport infrastructure including roads and bridges, thereby posing a threat to road safety.

15. Given the significance of the issue and the complexity of harmonizing vehicle weights and dimensions across countries, the secretariat, with funding support from the Government of China, is undertaking a comprehensive study to develop recommendations to better address the challenge of divergence in vehicle weights and dimensions to facilitate international road transport in the region.

Traffic rights

16. No international road transport network can exist without traffic rights arrangements in place. Currently, traffic rights between ESCAP countries are regulated by bilateral transport agreements. Countries use different approaches for arranging bilateral road transport operations. The existing regimes range from having no exchange of traffic rights or limiting their geographic scope to routes in border areas to granting the right of performing international road transport operations throughout the territory of a given country without any permits needed.

17. As emphasized in ESCAP studies and policy recommendations on road transport, in the long term, the liberalization of international road transport operations and replacement of quantitative restrictions (such as permit quotas) with qualitative criteria for access to transport markets should be considered as a target to follow. However, since it may be a while before all countries in the

² The Ashgabat Agreement on an international transport and transit corridor, between the Governments of the Islamic Republic of Iran, Oman, Turkmenistan and Uzbekistan, was signed on 25 April 2011. Business Gateways International, “Ashgabat Agreement gets push with India joining the Central Asian transport corridor”, 25 February 2018. Available at <https://businessgateways.com/news/2018/02/25/Ashgabat-Agreement-gets-push-with-India-joining-it>.

region are able to achieve such a target, gradual steps for opening up international road transport operations may be considered.

18. Keeping in view both the long-term targets and existing differences in approaches to traffic rights and permit systems in the region, the secretariat developed the Model Bilateral Agreement on International Road Transport, in which countries' approaches to regulating traffic rights are harmonized using three options.³

19. The first option is addressed to countries that are not yet prepared to grant general access to their territories for international road transport operations and still prefer to limit the scope of such operations to designated routes and border crossings. This option also provides for the requirement of permits for most types of transport operations.

20. The second option has no reference to designated routes and border crossings, but provides for permits with quantitative restrictions (quotas) in respect of most types of international transport operations. This approach is common in the region.

21. The third option provides for a permit-free legal regime for occasional transport of passengers and for bilateral and transit transport of goods. Permits are required for regular transport of passengers and third-country transport of goods only. Many countries in the region currently follow a similar approach in their bilateral agreements for international road transport.

22. Member countries are encouraged to use the Model Bilateral Agreement for future agreements as well as for the purposes of reviewing existing agreements to ensure legal harmonization in this regard, paving the way to greater convergence and increased transparency in traffic rights regulations.

C. Implementing transport facilitation agreements effectively

23. The efficiency of international transport operations depends considerably on the existence of harmonized transport regulations and practices, as well as streamlined formalities among regulatory agencies. A number of member States have entered into bilateral or subregional transport facilitation agreements or have acceded to international conventions related to transport facilitation, yet these have not produced the expected positive effects. This is mainly because their implementation poses a continuous challenge to countries, as the skills and tools available to control agencies need to be further enhanced to achieve an optimal balance between instituting facilitation and control measures.

Transport facilitation models

24. Working in this direction, the secretariat developed various models to support the efficient implementation of transport facilitation agreements across the region. These include the following: (a) the Secure Cross-Border Transport Model, which demonstrates the use of new technologies in transport facilitation;⁴ (b) the Efficient Cross-Border Transport Models, which address developments in trucking industry practices that allow the tractor and trailer to be swapped to

³ The Model Bilateral Agreement (E/ESCAP/MCT(3)/11, annex III) was adopted by the Ministerial Conference on Transport at its third session, in Moscow in December 2016, and was endorsed by the Commission in its resolution 73/4.

⁴ ESCAP, "Secure Cross Border Transport Model" (Bangkok, 2012).

deal with non-physical barriers;⁵ (c) the Model on Integrated Controls at Border Crossings, which is aimed at streamlining the flow of information from various agencies at the border to avoid duplications;⁶ and (d) the Time/Cost-Distance Methodology, which includes a diagnostic tool and a method of monitoring the performance of transport corridors.⁷

Handbooks on cross-border transport along the Asian Highway network

25. Lack of information on the regulatory requirements for cross-border transport operations hinders the ability of transport operators to comply with regulations. Accordingly, the secretariat, with the financial support of the Government of China, implemented a project on enhancing the efficiency and effectiveness of cross-border transport on the Asian Highway network, with a view to documenting information on cross-border regulations. Following a region-wide survey in cooperation with relevant officials and other stakeholders in countries sharing land borders, the information collected has been compiled into the *Handbook on Cross-Border Transport along the Asian Highway Network*.⁸ The handbook provides information on the regulatory requirements, including required documentation, for cross-border road transport operations along the Asian Highway network, and can be used as a source of practical information and a tool for policymakers, transport operators and providers of logistics services on border-crossing processes and formalities.

26. In addition, to support the implementation of the Intergovernmental Agreement on International Road Transport along the Asian Highway Network, between China, Mongolia and the Russian Federation, and to take stock of current cross-border infrastructure and formalities, the secretariat developed the *Handbook on Cross-Border Transport and Ancillary Facilities along the Asian Highway Network Routes 3 and 4*.⁹

27. Road transport in general and international road transport in particular have come under close scrutiny following renewed calls for a shift to more sustainable modes of transport. However, given the comparative advantage of international road transport in terms of its flexibility and agility, its role in first- and last-mile delivery and many other benefits, it plays and will continue to play a vital role in the movement of goods and people across the region. At the same time, moving forward, there is an urgent need to make international road transport more efficient by addressing the remaining non-physical barriers for international road transport, including visa issues for crew, third-party liability insurance for vehicles and temporary importation of vehicles. These barriers cause inordinate delays at borders with consequences that are not only economic but also social and environmental.

III. Facilitating international railway transport in the region and beyond

28. The adoption of the 2030 Agenda has highlighted the importance of sustainable transport solutions to achieve the Sustainable Development Goals. To move towards such a system at the regional level, there is a need for proactive

⁵ ESCAP, *Efficient Cross-border Transport Models* (Bangkok, 2015).

⁶ ESCAP, *Model on Integrated Controls at Border Crossings* (Bangkok, 2012).

⁷ See www.unescap.org/resources/timecost-distance-methodology.

⁸ ESCAP (Bangkok, 2017).

⁹ ESCAP (Bangkok, 2017).

policy initiatives to encourage energy-efficient and environmentally friendly modes of transport such as rail.

A. Rising volumes of international railway freight

29. Various estimates point to a rapid increase in railway freight, and current statistics in international railway freight transport are also showing rising trends. The number of container block trains organized along routes between China and Europe has risen rapidly, from 17 freight trains in 2011 to 3,673 in 2017, and from two routes in 2011 to 61 in 2017.¹⁰

30. To support the rising demand in overland transport, countries in the ESCAP region are implementing numerous national and regional initiatives to ramp up the transport infrastructure in order to further strengthen transport linkages among them.¹¹

31. Despite efforts to improve physical transport connectivity, railway networks remain underutilized owing to both technical and institutional factors. Efforts to bridge the missing links in the Trans-Asian Railway network are at varying stages of development. In the meantime, in order to strengthen and facilitate international railway transport in Asia and between Asia and Europe, it is imperative to develop and implement soft measures.

B. Harmonizing rules and regulations for the facilitation of international railway transport

32. The need for measures for the facilitation of international railway transport was recognized by the countries in the region in Commission resolution 71/7, on the adoption of the Regional Cooperation Framework for the Facilitation of International Railway Transport. In the Regional Cooperation Framework, the importance was underscored of member countries working together to develop efficient international railway transport by addressing four fundamental issues and working together in eleven areas for cooperation.¹² To

¹⁰ Agencia EFE, “Number of China-Europe freight trains highest in 2017”, 22 January 2018.

¹¹ For example, the Belt and Road Initiative, launched in China in 2013, aims to promote connectivity and support the development of transport connectivity networks. In Kazakhstan, the economic policy entitled “Nurly Zhol” (Path to the Future), announced in 2014, addresses the development and modernization of transport and logistics infrastructure, as well as other areas. The railway transport development strategy of the Russian Federation for 2030, first devised in 2008 and revised in 2013, defines strategic goals such as integrated transport space in the Russian Federation and integration into the international transport system.

¹² In the Regional Cooperation Framework, four fundamental issues and eleven areas for cooperation among members were identified for the facilitation of international railway transport. The fundamental issues are as follows: (a) standards for railway infrastructure, facilities and equipment; (b) break of gauge; (c) different legal regimes for railway transport contracts; and (d) coordination of regulatory controls and inspections at border-interchange stations. The eleven areas for cooperation are as follows: (a) participation in international railway organizations; (b) formulation of subregional and bilateral agreements on the facilitation of railway transport; (c) cooperation to standardize cross-border railway operations; (d) use of advance passenger/cargo information system(s); (e) arrangements for the exchange of wagons; (f) use of new technologies in train operations as well as in container tracking; (g) development of human resources for cross-border railway operations; (h) establishment of logistics centres/dry ports and maintenance hubs at or near border interchange stations, particularly along railway freight corridors; (i) simplification of the

implement Commission resolution 71/7, the secretariat undertook a project on the harmonization of rules and regulations for the facilitation of international railway transport in the region. Three studies were commissioned under the project.

33. Under the first study, on border-crossing practices in international railway transport,¹³ the processes at a number of selected railway border crossings in the region were documented and measures to enhance their efficiency proposed. Border-crossing processes play a vital role in the facilitation of international railway transport, and delays due to border-crossing formalities lead to increased transit time, adversely affecting the competitiveness of railway transport compared to other modes.

34. The legal arrangements with respect to international railway transport, customs and other regulatory requirements determine the operations and formalities at the border crossing. Given the divergence in countries' customs formalities for transit transport by railway, a case can be made for their harmonization through a regional arrangement. The study is expected to increase knowledge among member countries' railway and border officials regarding good practices and options to reduce border-crossing time to enhance the reliability of freight trains.

35. Under the second study, on enhancing interoperability to facilitate international railway transport,¹⁴ three dimensions of interoperability were identified: technical interoperability, defined by common technical parameters concerning railway infrastructure and rolling stock; legal interoperability, implying unified contractual obligations vis-à-vis customers from origin to destination; and operational interoperability, through harmonized operational practices over a railway corridor. Key technical parameters and operating practices in railway transport for various levels of technical and operational interoperability are also identified.

36. Greater interoperability requires closer coordination among countries' railway and border agencies. It implies common technical parameters for railway infrastructure and rolling stock and harmonized practices for railway operations. This study aimed to enhance the understanding of railway and border agencies in the region with respect to the range of options available to enhance interoperability among railways in all its dimensions to make international railway transport a preferred mode of transport.

37. Under the third study, on electronic information exchange systems for international railway transport, the existing systems for electronic exchange of information for international railway transport were reviewed. The European Commission's technical specification for interoperability relating to the telematics applications for freight subsystem of the rail system in the European Union, developed for railways in Europe, contains practical and institutional measures for the exchange of electronic information in railway transport. Many railways in the ESCAP region are also developing electronic information exchange systems based on leaflets issued by the Organisation for Co-operation

intermodal interface of railways with maritime, air and road transport; (j) promotion of the corridor approach in the facilitation of international railway transport; and (k) work towards paperless railway freight transport.

¹³ ESCAP, *Study on Border Crossing Practices in International Railway Transport* (Bangkok, 2018).

¹⁴ ESCAP, *Enhancing Interoperability for Facilitation of International Railway Transport* (Bangkok, 2018).

between Railways, and the countries of the Commonwealth of Independent States have established a council for railway transport in this regard.

38. The existence of electronic information exchange systems with different technical specifications and legal bases can potentially disrupt the flow of information along international railway corridors. This study aimed to enhance the understanding of railway and border officials with respect to the use of electronic information exchange systems for international railway transport.

C. Framework on enhancing the efficiency of railway border crossings along the Trans-Asian Railway network and beyond

39. At its fifth meeting, held in Busan, Republic of Korea, in June 2017, the Working Group on Trans-Asian Railway Network recognized that the operational readiness of the Trans-Asian Railway network would improve through measures such as the development of electronic data interchange and the easing of customs clearance formalities to facilitate international railway transport, and it suggested that a common regulatory framework could be defined in that regard.¹⁵

40. Accordingly, the secretariat, jointly with the Organisation for Co-operation between Railways, prepared a framework on enhancing the efficiency of railway border crossings along the Trans-Asian Railway network and beyond (as contained in the document ESCAP/CTR/2018/3). The preliminary draft of the framework was discussed at an expert group meeting held in Bangkok in September 2017. Recognizing the importance of the issues identified in fostering international railway transport, it requested the secretariat to work on the framework together with the Organisation for Co-operation between Railways. Subsequently, the draft framework was presented at the Regional Meeting on Harmonization of Rules and Regulations for Facilitation of International Railway Transport, held in Astana in December 2017. The Regional Meeting recommended that the finalized framework should be submitted to the Committee on Transport for its endorsement. The framework was then discussed at the High-Level Expert Group Meeting held in Ankara in May 2018. This meeting refined the framework and reiterated the recommendation by the Regional Meeting to submit the framework to the Committee for referral to the Commission for adoption in 2019.

41. In the framework, four specific issues are identified and targets and processes to achieve them are provided with a view to further enhancing the efficiency of railway border crossings along the Trans-Asian Railway network. The issues identified are (a) information exchange between railways; (b) customs and other government agency formalities; (c) break of gauge; and (d) measurement of the performance of railway border crossings.

42. The targets for the four identified issues are: (a) develop guiding principles on electronic information exchange between railways and among railways and control agencies; (b) harmonize customs formalities for international railway transport and formalize through appropriate arrangements between member countries; (c) frame standard operating procedures to efficiently deal with break of gauge for different possible situations; (d) develop comprehensive indicators to measure the performance of railway border crossings and use a standardized methodology to identify challenges and recommend solutions.

¹⁵ The report of the meeting is contained in document E/ESCAP/TARN/WG(5)/6.

43. The implementation of the proposed measures would help reduce the border crossing time in railway transport, making freight trains more reliable and increasing the modal share of railways.

IV. Efficient integration of transport modes for sustainable outcomes

A. Operationalizing integrated intermodal transport corridors

44. Given the vital role that transport corridors play to support global trade, the secretariat undertook a project on the comprehensive planning of Eurasian transport corridors. As part of the study conducted under the project, it was found that transport overland between Asia and Europe was heavily impeded by missing links and substandard transport infrastructure networks.¹⁶ Transport connectivity is also hindered by complicated border-crossing and transit formalities. In some cases, road traffic rights for transport do not exist, resulting in the need for trans-shipment or transloading at border areas.

45. There are many initiatives for the development of transport corridors in the ESCAP region. Some of the important road and railway corridors have been developed under the following organizations and programmes: the Economic Cooperation Organization, the Central Asia Regional Economic Cooperation Programme, the Greater Mekong Subregion Economic Cooperation Programme and the South Asian Association for Regional Cooperation. Initiatives to develop interregional transport corridors have been undertaken by ESCAP, the Economic Commission for Europe, the Transport Corridor Europe Caucasus Asia and the Organisation for Co-operation between Railways. There are also various national initiatives aimed at developing transport corridors.

46. While each corridor initiative has its own importance and meets the needs of the relevant countries in the subregion, the existence of numerous initiatives for transport corridor development has the potential for duplication and such initiatives may even conflict with each other, posing challenges, including with respect to implementation, leading to suboptimal outcomes for the efficiency and effectiveness of transport operations.

47. In 2014, the General Assembly adopted resolution 69/213 on the role of transport and transit corridors in ensuring international cooperation for sustainable development, in which it emphasized the need to harmonize and improve transport and border-crossing infrastructure and facilities and services along the international transport and transit corridors. It further called on Member States and international and regional organizations to further encourage enhanced networking and periodic consultation among related stakeholders involved in the development and operation of international transport and transit corridors.

48. In 2015, the General Assembly adopted resolution 70/197, entitled “Towards comprehensive cooperation among all modes of transport for promoting sustainable multimodal transit corridors”, in which it recognized the importance of transport and transit corridors in facilitating transport linkages on domestic routes and promoting urban-rural connectivity in order to boost economic growth at the local and regional levels, promote interconnections between cities, peoples and resources and facilitate intraregional and interregional trade. It also welcomed the efforts of international organizations,

¹⁶ www.unescap.org/resources/comprehensive-planning-eurasian-transport-corridors-strengthen-intra-and-inter-regional.

within their respective mandates, to develop and operationalize international and regional transport and transit corridors.

49. In 2017, the General Assembly adopted resolution 72/212 on strengthening the links between all modes of transport to achieve the Sustainable Development Goals. In this resolution, the General Assembly reiterated the importance of transport and transit corridors in promoting urban-rural connectivity in order to boost economic growth at the local and regional levels, and emphasized the importance of multi-stakeholder partnerships in delivering sustainable modes of transport.

Establishing a regional hub for transport corridors

50. Given the renewed emphasis on cooperation for developing and operationalizing transport corridors among the relevant stakeholders, the need for a multi-stakeholder approach and the imperatives of sustainable development, there is an urgent need to monitor the initiatives for transport corridor development from the regional perspective to provide the policymakers involved in the development and operation of the corridors with detailed analysis of the issues at stake, possible solutions and good practices for countries to make informed decisions.

51. This would entail creating a regional hub for transport corridors within the secretariat. The Regional Policy Dialogue on Strengthening Transport Connectivity in Southern and Central Asia, held in Bangkok in February 2018, recommended the secretariat to set up an intergovernmental group of experts on transport corridors to prioritize their development and operations for optimal outcomes.¹⁷

B. Harmonization of rules and regulations for intermodal interchanges

52. The intermodal terminals, seaports and dry ports in the region have divergent practices for the clearance of goods that often entail repetitive procedures, cumbersome or non-standardized documentation and multiple inspections. This leads to inefficiencies in intermodal exchanges and substantially increases the time taken for and cost of transporting goods, particularly for least developed and landlocked developing countries. Streamlined formalities for clearance and transit transport of goods among the intermodal facilities, dry ports and seaports could substantially enhance the efficiency of transport processes, reducing transportation costs for the movement of goods along the international transport corridors.

53. The entry into force of the Intergovernmental Agreement on Dry Ports in April 2016 demonstrates the willingness of countries to cooperate on the coordinated development of dry ports as the key element for operationalizing an efficient integrated intermodal transport system in the region. The Vienna Programme of Action for Landlocked Developing Countries for the Decade 2014–2024 has among its specific objectives to significantly improve intermodal connectivity with the aim of ensuring efficient transfers from rail to road and vice versa and from port to rail and/or road and vice versa, and to significantly simplify and streamline border-crossing procedures with the aim of reducing port and border delays.¹⁸

¹⁷ See www.unescap.org/sites/default/files/Key%20Highlights_RPD_7-8%20Feb%202018_200318.pdf.

¹⁸ General Assembly resolution 69/137, annex II.

54. Experience suggests that the issues that need to be considered for strengthening intermodal interfaces between modes of transport include: standardized information exchange between gateway ports and inland ports; efficient and effective guarantee management systems for the movement of goods between gateway ports and inland ports; streamlined border-crossing processes, for general inspections at origin or destination only and not at border crossing or ports for transit cargo; use of trusted transport operators; efficient and standardized trans-shipment procedures at gateway ports and intermodal locations; simplified and modern customs procedures, covering pre-arrival intimation, risk management and coordination among agencies; standardization of clearance procedures; mutual recognition of control measures; and the efficient flow of information between different modes of transport.

55. For efficient intermodal interfaces at sea-, air- and dry ports, there is a compelling need for the harmonization of rules and regulations for intermodal interchanges.

C. Leveraging the use of new technologies to facilitate transport and logistics

56. The new technologies spawned in part by the Internet-led revolution are beginning to have a large impact on various aspects of transport connectivity. Technologies such as satellite positioning systems, cellular communication systems and electronic seals with radio-frequency identification technology, following their commercialization, have started to play an important role in transport facilitation and logistics. Coupled with emerging concepts such as the Internet of things, artificial intelligence and blockchain, these technologies will play an increasing and crucial role in facilitating transport in the coming years.

57. Countries in South Asia have been taking steps to use new technologies to facilitate transport. Based on the concept provided by the Secure Cross-Border Transport Model developed by the secretariat, steps have been initiated for a pilot project for the electronic tracking of goods and vehicles along the transit route between India and Nepal.¹⁹ The scaling-up of the pilot project is expected to reduce transit transport cost for landlocked Nepal.

58. Electronic cargo-tracking systems are being increasingly used in transit transport facilitation. Many subregional agreements contain provisions for the electronic tracking of cargo. Several companies in the private sector are now offering solutions for the electronic tracking of goods and vehicles. Tracking technologies and related software are evolving rapidly, leading to better and economical versions coming onto market at regular intervals.

59. The diverse solutions that lack interoperability have the potential to increase costs, as has been experienced in countries in other developing regions, such as East Africa. As the national electronic cargo-tracking systems could not facilitate seamless transit, East African countries set up a regional cargo-tracking system to further improve the cargo predictability and security.²⁰ This has led to lower insurance premiums, lower transport costs and has generally reduced the

¹⁹ India, Ministry of Finance, “Memorandum on pilot project for electronic cargo tracking system to facilitate transit cargo movement between India and Nepal to be signed”, 30 March 2017. Trial runs done earlier on the transit transport route between India and Bhutan, with technical assistance from the secretariat, validated the technical and economic feasibility of these technologies in transit facilitation.

²⁰ World Customs Organization, “Kenya, Rwanda and Uganda officially launch Regional Electronic Cargo Tracking System”, 27 February 2017.

cost of doing business along the transit corridor. Given the potential of such systems in facilitating transit transport, it would be desirable to standardize and harmonize parameters for the key components of the electronic vehicle-tracking system for use in transit transport facilitation.

60. In addition, electronic tracking of goods and vehicles makes real-time enforcement possible, reducing the perceived risk by the customs authorities and related guarantee requirements. The electronic tracking systems, coupled with the electronic transit transport system,²¹ have the potential to provide secure transit and reduce guarantee costs, as the costs can be related to the reduced risks. Such systems could support the establishment of flexible guarantees as compared with the rigid guarantees of some of the existing transit systems. To enhance the knowledge of government officials on such systems, the secretariat developed the *Guide on Establishing an Automated Customs Transit Transport System*,²² and further intends to undertake policy support and capacity-building at the request of the member countries.²³

61. Furthermore, many countries in the region have high logistics costs owing to lack of coordination among various stakeholders in the logistics sector. This reduces the competitiveness of the countries involved. Given the rapid expansion of electronic commerce and related challenges for logistics, the role of digital logistics platforms is increasingly becoming important for sharing information among the stakeholders.

62. For example, in Singapore, a national electronic logistics platform called TradeXchange was established to facilitate the sharing and exchanging of information among trade and logistics stakeholders. Similarly, in India, an integrated logistics platform is being set up that will connect buyers as well as logistics service providers with all government agencies such as customs, port community systems, sea- and airport terminals, shipping lines and railways, with the objective of reducing logistics costs.²⁴

63. With ever increasing cross-border trade and transport movements, transnational logistics information systems are becoming increasingly crucial. To maximize their positive effects on intra- and interregional transport facilitation, such systems must be interoperable, based on harmonized standards. To support such initiatives within and among countries, the secretariat developed the Standard Model of Logistics Information Systems, which was adopted by the Ministerial Conference on Transport and endorsed by the Commission in its resolution 73/4.²⁵

64. Given the fast evolution of these technologies and their impact, particularly on transport facilitation, the sharing of experiences among members and associate members can enhance their understanding and expand their options for addressing the challenges of facilitating transport. The secretariat provides a forum for the organization seminars and workshops to share experience,

²¹ This system is being implemented among member States of the Association of Southeast Asian Nations (ASEAN) as the ASEAN Customs Transit System, based on the European Union's New Computerized Transit System.

²² ESCAP (Bangkok, 2016).

²³ The secretariat proposes to undertake activities related to the ASEAN Customs Transit System among the ASEAN member States in which it is being implemented.

²⁴ "Commerce Ministry plans integrated logistics portal", *The Hindu Business Line*, 17 January 2018.

²⁵ See E/ESCAP/73/15/Add.1.

disseminate good practices and prepare guidelines for the use of new technologies in enhancing transport connectivity.

D. Strengthening maritime connectivity

65. The promotion of efficient maritime transport connectivity in the region forms part of the measures to address the increasing concerns related to sustainability of transport. Maritime transport connectivity is important to all countries in the ESCAP region, especially the least developed countries and landlocked developing countries which need to integrate their land transport networks with seaports. At the same time, maritime connectivity needs to be addressed as part of overall transport connectivity, addressing such issues as efficiency of ports and their hinterland connections.

66. Many ESCAP member countries have been upgrading ports and undertaking programmes to strengthen maritime connectivity. In 2016, India launched a port-led development programme entitled Sagarmala, which aims to increase the capacities of existing ports, enhance port-hinterland connectivity and promote port-led industrialization.²⁶ Port linkages with the hinterland remain weak in many landlocked developing countries and least developed countries for multiple reasons. A World Bank report on the competitiveness of South Asian container ports found that despite progress made since 2000, there was substantial room for improvement as shipping still cost more and took longer in South Asia.²⁷ Increasing the competitiveness of South Asian exports would require improvement in container ports, as over three quarters of trade is transported through seaports.

67. Inefficient operations of port community systems at many seaports in this region is one important factor impeding port efficiency.²⁸ A recent report by Dun & Bradstreet on port logistics issues and challenges in India identified that port community systems in their current state were not able to bring together stakeholders at ports for the real-time exchange of information. Accordingly, there is a need to undertake a comprehensive review of the port community systems in the region with a view to providing guidelines on the efficient use of port community systems in such areas as message exchanges and linkages with single-window, e-customs and logistics platforms to enhance the efficiency of port clearance processes.

68. To harness the full benefits of port modernization, it is imperative to simplify the port management and clearance processes by using new technologies that can reduce paperwork and the related inefficiencies in the transport process. In this regard, Maersk and IBM have been working on an industry-wide cross-border supply-chain solution using blockchain that could help manage transactions electronically among shippers, freight forwarders, ocean carriers and port and customs authorities. The solution is designed to help

²⁶ “Sagarmala is a very ambitious project of the Indian Government: Rajive Kumar, Shipping Secretary”, *Economic Times*, 23 March 2017. Available at http://sagarmala.gov.in/sites/default/files/Sagarmala%20is%20a%20very%20ambitious%20%20project%20of%20the%20Indian%20Government_%20Rajive%20Kumar%20%20Shipping%20Secretary%20-%20The%20%20Economic%20Times_0.pdf.

²⁷ World Bank, “Competitiveness of South Asia’s container ports”, 27 April 2017. Available at www.worldbank.org/en/news/press-release/2017/04/27/port-performance-south-asia-better-still-expensive-slow-report.

²⁸ A port community system is a neutral and open electronic platform enabling intelligent and secure exchange of information between public and private stakeholders in order to improve the competitive position of the seaports’ communities.

reduce fraud, errors and time products spent in the transit and shipping process, leading to improved inventory management.²⁹

69. The planned solution could help shippers reduce trade and transport documentation and processing costs and eliminate delays associated with the physical movement of paper documents. It would also provide visibility of the container as it advanced through the supply chain. The solution would provide customs authorities with real-time visibility, and the information for risk analysis and targeting would lead to increased safety and security as well as greater efficiency in border inspection clearance procedures. The secretariat intends to build partnerships with these organizations to bring the benefits of blockchain technologies in the facilitation of transport to its members.

70. Despite long coastlines in many countries in the region, land transport is usually the dominant mode used in the movement of goods. The share of coastal shipping in domestic freight movement for most countries in the region remains marginal. Coastal shipping is well suited to the long-distance transportation of bulk cargoes such as coal, minerals and petroleum products at a lower cost per unit. The increasing levels of congestion on road and rail networks provide an opportunity for coastal shipping to improve its share and contribute to the sustainability of transport.

71. Recognizing the need for cooperation among countries in coastal shipping, the countries of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation began discussions on an agreement to promote coastal trade and shipping.³⁰ Coastal shipping requires smaller vessels and less draught, and therefore involve lower costs. Once the agreement becomes operational, a lot of cargo movement between the member countries of the Initiative can be done through the cost-effective, environmentally friendly and faster coastal shipping route.³¹

E. Enhancing the efficiency of transport logistics in the region

72. Logistics service providers, including freight forwarders and transport operators, undertake practical transport and logistics operations. The importance of capacity-building by improving the professional skills of transport and logistics professionals is widely recognized. The secretariat finalized guidelines for establishing sustainable accredited training systems for freight forwarders, multimodal transport operators and logistics service providers in Asia and the Pacific.

73. Furthermore, since 2007, the secretariat has been organizing the annual Regional Conference for Logistics Service Providers in collaboration with the International Federation of Freight Forwarders Associations in the Asia-Pacific region to provide an enabling platform for logistics service providers in Asia and the Pacific to share knowledge and experience and discuss emerging issues and

²⁹ IBM, “Maersk and IBM unveil first industry-wide cross-border supply chain solution on blockchain”, 5 March 2017.

³⁰ “BIMSTEC countries discuss draft pact on coastal shipping”, *The Hindu Business Line*, 1 January 2017.

³¹ India, Ministry of Shipping, “BIMSTEC Member States discuss draft text of Coastal Shipping Agreement”, 1 December 2017.

possible solutions and initiatives to deal with the challenges of promoting the development of efficient transport and logistics services in the region.³²

74. The Conference also provides the opportunity to maintain a continuous dialogue, cooperation and technical engagement between ESCAP and the private sector, to share experience and information, and to find new ways forward for the logistics sector. The secretariat intends to continue to engage the logistics community to support more sustainable logistics practices.

V. Strengthening transport connectivity in the subregions

A. South and South-West Asia: master plan on transport connectivity

75. The countries in the South and South-West Asia subregion have been unable to harness the benefits of their geographic proximity owing to a lack of efficient transport linkages. To raise awareness among policymakers on the lost opportunities and steps that could be taken to enhance transport connectivity, the secretariat has organized a series of policy dialogues, during which support has been expressed among countries for the development of a master plan to strengthen transport connectivity in the subregion.³³

76. The proposed plan would be developed in close consultation with member countries and development partners, and would prioritize the operationalization of road/rail and intermodal transport corridors between countries to enhance the transport connectivity in the subregion by using, among others, ESCAP transport facilitation tools and frameworks. During the regional policy dialogue held in Bangkok in February 2018, the Government of Thailand put forward this proposal as a main action point, requesting the secretariat to take lead in developing and finalizing a transport connectivity master plan for the subregion to integrate the various elements of transport infrastructure and facilitation.³⁴

B. South-East Asia: action plan on transport connectivity for Cambodia, the Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam

77. Over the past several years, countries in South-East Asia have improved their transport and logistics efficiency by taking practical action to develop such areas as the following: dry ports and special economic zones; coastal shipping; port electronic data exchange systems, to improve maritime-hinterland connectivity; single-stop inspections and customs control areas at border crossings; and the pilot application of automated customs transit transport systems for transport facilitation.

78. In August 2017, a pilot project was initiated between the Mae Sot and Myawaddy border crossings between Thailand and Myanmar that involved

³² The annual Regional Conference has been held in Bangkok (2007, 2009, 2011, 2012, 2015 and 2017), New Delhi (2008), Bali (2010), Negombo (2013), Beijing (2014), Jakarta (2016) and Busan (2018).

³³ The first in the series of policy dialogues took place in Bangladesh in June 2013, the second in Pakistan in December 2013, the third in India in November 2014, the fourth in the Islamic Republic of Iran in December 2015 and the most recent one in Thailand in February 2018.

³⁴ See www.unescap.org/sites/default/files/Key%20Highlights_RPD_7-8%20Feb%202018_200318.pdf.

trailer swapping at the border crossing. The customs formalities were shifted to inland locations and the bonded goods were electronically tracked between the border crossing and the inland locations. The pilot demonstrated that the time taken to transport goods between the two countries could be reduced by half using trailer swap.³⁵ Earlier, in February 2015 in Viet Nam and the Lao People's Democratic Republic, a single-stop and single-window inspection system was launched at the Lao Bao-Dansavanh checkpoint in a move to facilitate trade and transport between the two countries.

79. While such achievements are certainly noteworthy, transport facilitation between Cambodia, the Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam still faces numerous challenges, including a lack of transport and transit rights that enable seamless movement of vehicles across borders, weak port-to-hinterland connectivity, and complex regulatory procedures. This prevents these countries from taking advantage of their geographic proximity to further enhance trade and people-to-people connectivity.

80. Against this background, the secretariat organized workshops to strengthen operational transport connectivity among these countries in Cambodia in September 2017 and in Viet Nam in December 2017, to raise awareness among policymakers on the opportunities lost due to inadequate transport connectivity.

81. To exploit the benefits of geographic proximity, these countries require sustained efforts to enhance their transport connectivity, taking into consideration the socioeconomic differences between them. An agreed action plan containing priority measures on facilitating transport could further enhance transport connectivity between these countries, and the need for such a plan has been echoed by Thailand.³⁶

C. Central Asia: integrated programme on enhancing transport connectivity

82. Within Central Asia, notable measures are also being taken to facilitate transport. In March 2018, the Governments of Uzbekistan and Tajikistan signed an intergovernmental agreement on international road transport. In May 2018, a passenger bus service that was discontinued in 1992 was reintroduced on the Tashkent-Khujand-Tashkent route between Uzbekistan and Tajikistan. It is further planned to open more regular routes between the two countries. Measures have also been initiated to activate a road corridor between China, Kyrgyzstan and Uzbekistan with the organization of a pilot car rally on the Tashkent-Andijan-Osh-Irkeshtam-Kashgar route with vehicles from Uzbekistan and Kyrgyzstan in 2017.

83. Many initiatives to facilitate transport in Central Asia are being undertaken by subregional organizations, notable among which are those of the Shanghai Cooperation Organization and the Economic Cooperation Organization. The secretariat has worked collaboratively with the Shanghai Cooperation Organization in transport facilitation and provided technical and legal support for the finalization of the Agreement of the Shanghai Cooperation Organization Member States on the Facilitation of International Road Transport,

³⁵ PressReader, "Pilot scheme speaks volumes about potential of Mae Sot-Myawaddy trade", 28 August 2018. Available at www.pressreader.com/myanmar/the-myanmar-times/20170828/281599535629976.

³⁶ "Somkid urges Thai-CLMV master plan", *Bangkok Post*, 24 March 2017.

which was signed in Dushanbe in 2014, and continues to support its implementation,³⁷

84. The Economic Cooperation Organization works actively with many countries in Central Asia to facilitate transport, and in this regard formalized the Transit Transport Framework Agreement among its members. At the ninth Meeting of the Ministers of Transport of the Economic Cooperation Organization Member States, the Turkmenbashi Declaration was adopted, under which the first decision is on implementation of the Transit Transport Framework Agreement to facilitate cross-border and transit transport by removing non-physical barriers arising from cumbersome administrative formalities in transit transportation, in line with international practices. The Meeting also decided to make efforts towards reducing transport-related charges by facilitating cross-border procedures.

85. Moreover, in June 2018 the General Assembly adopted resolution 72/283 on strengthening regional and international cooperation to ensure peace, stability and sustainable development in the Central Asian region, in which it noted the importance of developing an advanced transportation system in the vast area of Central Asia and the wide use of the transit potential of the region as a necessary condition for sustainable development.

86. Given the numerous initiatives to enhance connectivity that are being undertaken by the countries and organizations in Central Asia, an integrated programme to prioritize those initiatives would benefit all countries. Such a proposal has already been advocated at the highest level by Uzbekistan.³⁸ The secretariat could lead this initiative in partnership with relevant organizations and in consultation with countries in Central Asia.

D. Enhancing transport connectivity for small island developing States in the Pacific

87. As small island developing States, ESCAP countries in the Pacific face unique challenges in their efforts to strengthen sustainable transport connectivity, including their small size, remoteness from major markets, limited resources, and vulnerability to climate change, natural disasters and external economic shocks.

88. Recognizing these challenges, the Commission, at its seventieth session, adopted resolution 70/7 on the implementation of the Suva Declaration on Improving Maritime Transport and Related Services in the Pacific, in which it expressed agreement that maritime transport and related services in the Pacific were public policy issues of major concern that required strong political commitment and effective interventions.

89. In this context, the secretariat would partner with the Pacific Community and undertake studies to develop policy options and recommendations for

³⁷ Following signature, the secretariat provided technical assistance at the first meeting of the Joint Commission on Facilitation of International Road Transport under the Agreement, held in Beijing in May 2017, and at the round table on the prospects of the implementation of the Agreement held in Beijing in July 2017.

³⁸ The President of Uzbekistan proposed that the countries of Central Asia should develop and adopt a unified programme for the development of transport connectivity in the region at an international conference entitled “Central Asia: One Past and a Common Future – Cooperation for Sustainable Development and Mutual Prosperity”, held on 10 and 11 November 2017 in Samarkand, Uzbekistan.

enhancing maritime transport connectivity among small island developing States with a view to supporting sustainable development in these countries.

VI. Conclusions

90. The 2030 Agenda contains some of the most ambitious global commitments of our times to provide better opportunities for all our peoples. Transport is a vital enabler for achieving the Sustainable Development Goals, and is a means to an end rather than an end in itself. In the present document, countries' progress in facilitating transport and logistics has been acknowledged, while the enormity of the task ahead has been highlighted. It contains a number of tangible suggestions to further enhance transport operational connectivity in the region.

91. In the regional road map for implementing the 2030 Agenda for Sustainable Development in Asia and the Pacific, adopted by ESCAP member States, connectivity for the 2030 Agenda was identified as one of the priority areas for cooperation. Accordingly, the secretariat would continue to provide technical assistance, policy support and capacity-building to member countries with a view to fostering sustainable transport operational connectivity, focusing particularly on the needs of the least developed and landlocked developing countries in the region.

92. The facilitation of transport and logistics in the region is a highly challenging task that requires financial, technical and policy input from a wide range of development partners and transport stakeholders. As referenced throughout this document, ESCAP has established strategic partnerships with the key organizations, including development banks, subregional organizations and regional and global transport bodies. The secretariat would continue reinforcing the existing collaboration and building new partnerships to create synergies and value for ESCAP member countries to meet their increasing demands for mobility in a sustainable manner.

VII. Issues for consideration

93. The Committee may wish to share information on progress with respect to the facilitation of transport and logistics, and provide guidance to the secretariat on its future work for the following purposes:

(a) To endorse the framework on enhancing the efficiency of railway border crossings along the Trans-Asian Railway network and beyond, as contained in the document (ESCAP/CTR/2018/3), for adoption by the Commission in 2019;

(b) To establish an intergovernmental group of experts on transport corridors to support member countries in planning and operationalizing international transport and transit corridors in the ESCAP region and beyond;

(c) To continue to support member countries in developing and operationalizing transport facilitation agreements, particularly the least developed countries, landlocked developing countries and small island developing States;

(d) To promote the use of new technologies to facilitate transport and logistics in the region by sharing experience, developing knowledge products, including transport facilitation tools, and undertaking pilot demonstrations;

(e) To assist member countries in reducing logistics costs by promoting digital logistics platforms, inter alia.