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**Economic and Social Commission for Asia and the Pacific**  
Ministerial Conference on Transport**Third session**

Moscow, 5-9 December 2016

Item 3 (c) of the provisional agenda\*

**Major issues in transport****Regional transport operational connectivity****Note by the secretariat***Summary*

Together with building transport infrastructure, regional operational transport connectivity remains a long-term task for members and associate members of the Economic and Social Commission for Asia and the Pacific. The regional frameworks for facilitation of international road and railway transport adopted by the Commission provide common targets for regional harmonization of legal instruments, cross-border documents and formalities, operational standards, and facilitation measures.

In the present document, the implementation of these frameworks and logistics programmes as a means to accomplish the vision of operational integrated intermodal transport and logistics systems across the region is emphasized. It contains, a discussion of the model bilateral and subregional transport agreements and a model multilateral permit for international road transport, which were developed within the two regional frameworks for regional harmonization of legal instruments on cross-border and transit transport, as well as a standard model for logistics information systems to fully exploit the benefits of new technologies for the improvement of logistics performance. A response to the need for further assistance of members and associate members in developing and implementing cross-border and transit transport agreements and transport facilitation tools and measures is outlined in the present document. Further assistance in harmonizing operational and technical standards is also stressed.

**I. Introduction**

1. Members and associate members of the Economic and Social Commission for Asia and the Pacific (ESCAP) have made efforts to strengthen transport connectivity among themselves for many decades by improving both transport infrastructure and transport facilitation. Despite steady progress, the region still has a long way to go in realizing seamless regional transport connectivity. The region's fragmented approach, particularly for operational transport connectivity, has contributed to this slowness, leading to suboptimal results in terms of transport efficiency.

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\* E/ESCAP/MCT(3)/L.1.

2. Meanwhile, the demand for transport in the region has grown rapidly due to high economic growth in many countries, a trend that is likely to continue. However, this has occurred at the same time that the adverse impact of climate change and the role of transport in aggravating it have become a matter of concern for the international community.
3. This challenge, therefore, provides an opportunity for members and associate members to take proactive policy measures to develop integrated intermodal transport systems at national, subregional and regional levels and meet the increased demand while ensuring the sustainability of transport.
4. The present document describes key issues in operationalizing integrated intermodal transport systems to provide seamless operational transport connectivity across the region and beyond. It reiterates the importance of eliminating non-physical barriers for efficient international road and railway transport which, coupled with well-functioning intermodal nodes, can lead to the substantial reduction of the overall time and cost for moving goods along transport/transit corridors or networks.
5. The present document also underscores the key role of logistics information systems in reducing transport logistics costs in the region, which is imperative for enhancing the competitiveness of countries and unlocking their trading potential. This will attract more foreign direct investment, leading to a virtuous cycle of investment and economic activity.
6. To sustainably meet the increase in demand for transport, countries need to establish functional integrated intermodal transport systems that optimally combine the strengths of various modes of transport. At a regional level, enabling such systems implies undertaking numerous and complex legal, institutional and practical measures, some of which are indicated in the present document.
7. Seamless operational transport connectivity will foster regional economic cooperation and integration, which will support countries in achieving the Sustainable Development Goals.

## **II. Enhancing the efficiency of international road transport**

8. Given the dynamic nature of globalization and the emergence of new challenges for border agencies (such as those related to security), the facilitation of international road transport is a long-term endeavour for the region, and countries will need to make coherent, consistent and tenacious efforts to find an optimal balance between transport facilitation and controlling/regulatory measures.
9. In line with this objective, member States adopted the Regional Strategic Framework for the Facilitation of International Road Transport<sup>1</sup> in 2012, which comprehensively identified the non-physical barriers affecting international road transport. The Regional Strategic Framework identified six fundamental issues and suggested long-term targets for solving them; it also suggested seven modalities to support the facilitation of international road transport.
10. The six fundamental issues 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;

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<sup>1</sup> Available from [www.unescap.org/sites/default/files/Booklet\\_A\\_Strategic\\_Framework.pdf](http://www.unescap.org/sites/default/files/Booklet_A_Strategic_Framework.pdf).

(e) vehicle weights and dimensions; and (f) vehicle registration and inspection certificates.

11. 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 workers; (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.

12. Member States have made efforts to open more international routes on the Asian Highway network and to enhance the efficiency of border crossings for goods to move seamlessly across the region.

13. To this end, China, Mongolia and the Russian Federation are finalizing negotiations with regard to an intergovernmental agreement on international road transport along the Asian Highway network. Once in force, the agreement will be open for accession to all the members of the Asian Highway network. The secretariat has supported the formulation of the agreement by providing technical and financial assistance for the negotiations, undertaking relevant research and drafting the agreement and its annexes.

14. In South Asia, Bangladesh, Bhutan, India and Nepal signed a motor vehicle agreement in June 2015. Currently, the protocols for the agreement are being finalized. Once in force, this agreement will open a number of routes for international road transport in South Asia.

15. With the finalization of Protocol 7 to the Association of Southeast Asian Nations (ASEAN) Framework Agreement on the Facilitation of Goods in Transit on Customs Transit System in 2015, the pilot implementation of the ASEAN Customs Transit System in Malaysia, Singapore and Thailand was undertaken during 2016. It is expected that its full implementation will significantly facilitate transport among ASEAN member countries, thereby underpinning the objectives of the ASEAN Economic Community.

16. The member States of the Shanghai Cooperation Organization signed the Intergovernmental Agreement of the Shanghai Cooperation Organization Member States on the Facilitation of International Road Transport in September 2014. This Agreement will significantly promote regional and subregional connectivity and integration among China, the Russian Federation and Central Asian countries. Since its initiation in 2004, the secretariat has supported the negotiations for the Agreement through technical and financial assistance, relevant research and the drafting of the Agreement and its annexes.

17. The following paragraphs take stock of the situation with regards to the fundamental issues in international road transport identified in the Regional Strategic Framework.

18. Visas for professional drivers and crews of road vehicles continue to be a barrier to the smooth movement of goods and passengers across borders, as, in general, professional drivers and crews are treated like any other visa applicant. Although it could ease the visa issuance process for professional drivers and crew, the suggested target indicated in the Regional Strategic Framework of multiple-entry visas valid for one year for professional drivers together with a harmonized set of documents and basic procedures has not been attained.

19. Regarding the temporary importation of road vehicles, the Regional Strategic Framework recommends the application of relevant international conventions as the minimum regional standard. However, no tangible progress has been made since its adoption in 2012: no ESCAP member State acceded to the Customs Convention on the Temporary Importation of Commercial Road Vehicles (Geneva, 1956) and only two member States acceded to the Convention on Temporary Admission (Istanbul, 1990) but neither of them accepted without reservation annex C to the Convention on the temporary importation of means of transport.

20. Insurance for vehicles is another challenge that impedes efficient international road transport operations. It continues to be common to require insurance be purchased at each border crossing throughout the region. Only one member country acceded to a subregional insurance system (namely, Green Card) since the adoption of the Regional Strategic Framework; hence third party insurance of vehicles through the use of an appropriate insurance system as a minimum regional standard remains a target to be attained.

21. The harmonization of standards for permissible vehicle weights and dimensions still remains paramount for improving the efficiency of regional road transport operations. This objective has not been attained; hence intensified efforts are needed at a regional level.

22. For example, in Azerbaijan, the maximum permissible weight for a rigid vehicle is 32 tons, and for an articulated vehicle, 38 tons. In the neighbouring countries, including Georgia, the Islamic Republic of Iran, the Russian Federation and Turkey, the maximum permissible weight standards are 34 tons for a rigid vehicle (35 tons in the Russian Federation) and 44 tons for an articulated vehicle. Similarly, in Central Asia, Tajikistan has a maximum vehicle weight limit of 40 tons, while neighbouring countries such as Kazakhstan has up to 48 tons, and Kyrgyzstan and the Russian Federation up to 44 tons. In mainland South-East Asia, the maximum permissible weights and dimensions are harmonized to a large extent, with a permitted weight limit of 40 tons for articulated vehicles in Cambodia, the Lao People's Democratic Republic and Viet Nam. However, the weight limit in Thailand is 50 tons for an articulated vehicle.

23. Standards for maximum permissible vehicle weight that are different between countries oblige complying transport operators to load their vehicles suboptimally when undertaking transportation of goods and to take more trips with smaller vehicles. On the other hand, the non-complying operators are either fined or make informal payments to continue their trip, leading to delays and increases in transportation costs. Hence, the non-harmonized standards for vehicle weights have adverse effects on the efficiency of international transport operations and on the environment.

24. The Regional Strategic Framework recommends the adoption of the standards on vehicle registration certificates, number plates or marks, and country distinguishing signs, as contained in the Convention on Road Traffic (Vienna, 1968). However, only two ESCAP member States became contracting parties to that Convention since the adoption of the Framework, and vehicle registration and inspection certificates are, in many cases, not mutually recognized by countries in the region.

25. Less than efficient practices combined with the lack of traffic rights, excessive documentation and cumbersome procedures at borders make the facilitation of international road transport a continuing challenge for the region.

26. There is mixed success across the region in building an effective legal regime based on international conventions. Accession to the legal instruments suggested by the Regional Strategic Framework remained rather low; only two member States ratified the Customs Convention on the International Transport of Goods under Cover of TIR Carnets of 1975. Seven member States ratified the revised Kyoto Convention on the Simplification and Harmonization of Customs Procedures of 1999, but only two of them have also accepted specific annexes/chapters of the Convention. Finally, only one member State ratified the Convention on Road Signs and Signals (Vienna, 1968).

27. Efficient international transport operations depend largely on the degree of harmonization of transport regulations and practices, as well as on establishing streamlined institutional arrangements. Some member States have therefore entered into bilateral/subregional transport facilitation agreements or have acceded to international conventions related to transport facilitation, but the expected positive effects have failed to materialize. This may also be caused by the fact that the road sector, although predominant in many countries in the world, is not enjoying the same treatment as civil aviation and maritime shipping, in the sense that there are no global norms set by an international intergovernmental body that is recognized by countries globally. This penalizes cross-border road transport, preventing it from playing the role of growth enabler. This could be solved by establishing a global intergovernmental road organization to set standards and recommend regulations.

28. To support countries in implementing the transport facilitation measures included in the Regional Strategic Framework or deriving from it, the secretariat developed four mutually complementary transport facilitation models to address the operational challenges of regional transport connectivity. The models have the potential to address non-physical barriers in international road transport in the region by providing a complete package of solutions for diverse issues in cross-border and transit transport facilitation.

29. The four transport facilitation models are (a) the Secure Cross Border Transport Model,<sup>2</sup> which demonstrates the use of new technologies in transport facilitation; (b) the Efficient Cross Border Transport Models,<sup>3</sup> which addresses developments in trucking industry practices that allow the tractor and trailer to be swapped to deal with non-physical barriers; (c) the Model on Integrated Controls at Border Crossings,<sup>4</sup> which provides for streamlining the flow of information from various agencies at the border to avoid duplications; and (d) the time cost distance methodology,<sup>5</sup> which provides a diagnostic tool and a method of monitoring the performance of transport corridors.

30. Three national workshops were organized upon request by members and associate members of ESCAP to support them in implementing these models. The workshops enhanced the knowledge and skills of officials involved in cross-border transport and transit to address challenges in transport facilitation and provided information on available tools to deal with those challenges. Furthermore, the secretariat conducted a feasibility study on the pilot implementation of the Secure Cross Border Transport Model along the Bhutan-India transit transport corridor, at the request of some countries.

<sup>2</sup> See [www.unescap.org/resources/secure-cross-border-transport-model](http://www.unescap.org/resources/secure-cross-border-transport-model).

<sup>3</sup> See [www.unescap.org/resources/efficient-cross-border-transport-models](http://www.unescap.org/resources/efficient-cross-border-transport-models).

<sup>4</sup> See [www.unescap.org/resources/model-integrated-controls-border-crossings](http://www.unescap.org/resources/model-integrated-controls-border-crossings).

<sup>5</sup> See [www.unescap.org/resources/timecost-distance-methodology](http://www.unescap.org/resources/timecost-distance-methodology).

The study, finalized in October 2015 in cooperation with the Asian Development Bank, recommends the use of new technologies as a tool to facilitate transport along the concerned corridor and to reduce the time and costs of transit transport.

31. New technologies like satellite positioning systems, cellular communication systems and electronic seals with radio frequency identification technology have become more affordable and available. Hence they are already playing an important role in facilitating transport and logistics, which will increase even more with the advent of concepts such as the internet of things and intelligent transport systems. Consequently there is a proportionally increasing need among members and associate members for enhanced understanding and application of new technologies. Given the rapid changes in information and communications technologies and their impact on transport facilitation, sharing of experiences among countries can enrich the available options for addressing challenges to facilitate transport. In this regard, the secretariat can provide an appropriate forum for the sharing of experiences and the dissemination of good practices. This would also provide relevant inputs to the secretariat to update the transport facilitation tools to respond optimally to member States' needs.

32. The Vienna Programme of Action for Landlocked Developing Countries for the Decade 2014-2024 underscored the need for the effective implementation of transport and transit agreements for the development of reliable, secure and efficient transit system in these countries.<sup>6</sup>

33. To support members and associate members in fully harnessing digital technologies for transport facilitation, the secretariat conducted a study on a paperless transit system, under a United Nations Development Account tranche eight project. A training of trainers' workshop on paperless transit systems was organized jointly with the Asian and Pacific Training Centre for Information and Communication Technology for Development in Incheon, Republic of Korea, in June 2015 to enhance the understanding of the relevant stakeholders on key issues in implementing such systems.

34. The guide on paperless transit transport developed as part of the project will enhance the understanding of border officials on planning and implementing paperless transit transport systems in the region. This will particularly help landlocked and transit developing countries to increase the efficiency of transit processes and cross-border transactions, in line with the action proposed in paragraph 26 (h) of the Vienna Programme of Action.

35. In many cases, the progress made by countries in facilitating international road transport in the region cannot be measured because no baseline has been set. To provide countries with a tool for measuring progress in facilitating road transport, the secretariat has developed a handbook of regulatory requirements for seamless transport operations along the Asian Highway network. The handbook is expected to strengthen the capacities of decision makers in member States to take measures to remove bottlenecks and improve operational conditions for cross-border transport, as well as to plan and implement transport facilitation measures successfully in collaboration with neighbouring countries. It can also be used as a source of practical information for all stakeholders with regards to the processes and formalities for cross-border transport by road.

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<sup>6</sup> General Assembly resolution 69/137, annex II, paras. 22 (d), 26 (b) and 27 (a).

36. The handbook will be complemented by a set of performance indicators to assess the efficiency of cross-border transport by road and to propose measures for improvements. They will underpin the understanding of the performance of the countries along the Asian Highway network in terms of transport facilitation activities. More specifically, they will play an important role in highlighting existing problems, identifying trends, contributing to priority setting, policy formulation, and evaluation and monitoring of progress in line with the Regional Strategic Framework.

37. The Regional Network of Legal and Technical Experts on Transport Facilitation was established in February 2014 to assist member States in building more efficient legal regimes for international transport in the region as a key modality for enhancing the level of facilitation in international road transport.

38. As a fundamental premise, no international road transport can exist without traffic rights arrangements in place. In general, these arrangements are part of bilateral or subregional agreements regulating international road transport, but it was noted that many of the existing legal instruments have not been effectively implemented by the parties, or that one country has substantially different transport agreements with each of its neighbours. The latter situation creates challenges for authorities while enforcing them, and for transport operators in complying with the various sets of requirements.

39. Despite many bilateral and subregional agreements,<sup>7</sup> international road transport in the region continues to be challenging due to limited road transport permits and traffic rights arrangements. In many countries, notably in South Asia, loading/unloading at the borders continues to be the norm. Other countries allow foreign trucks to enter their territories only to unload at places close to the border. Such situations are the result of countries not granting each other traffic rights (including international transport and transit) which would allow goods to move in the same vehicle from origin to destination. Road transport permits and traffic rights are identified as one of the fundamental issues in international road transport in the Regional Strategic Framework; the target suggested in the Framework is to apply multiple-entry transport permits, valid for one year for use on multiple routes or road networks for interstate and transit transport operations. Experience suggests that there is a need for a substantive progress in this direction.

40. Several comparative studies on subregional and bilateral agreements on transport facilitation were undertaken by the Regional Network of Legal and Technical Experts on Transport Facilitation. On the basis of these studies, the secretariat developed a draft model subregional agreement on transport facilitation, and a draft model bilateral agreement on international road transport.

41. These models can be used as guidelines by countries when they negotiate or renegotiate transport agreements, with a view to achieve the gradual region-wide harmonization of legal instruments on cross-border and transit transport at both multilateral and bilateral levels.

42. The draft model subregional agreement on transport facilitation and draft model bilateral agreement on international road transport were discussed at the Regional Meetings on Harmonization of Legal Instruments and Documentation for Cross-border and Transit Transport by Road held in Bangkok in December 2015 and in Dushanbe in May 2016. The Meetings

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<sup>7</sup> See [www.unescap.org/resources/database-agreements-international-road-transport](http://www.unescap.org/resources/database-agreements-international-road-transport).

recognized that the model agreements were useful tools. At the same time the need for a regional multilateral international road transport permit system was identified, as an accompanying tool for efficient implementation of cross-border transport and transit rights.

43. The Meetings proposed to submit the model subregional agreement on transport facilitation<sup>8</sup> and the model bilateral agreement on international road transport<sup>9</sup> for adoption at the Ministerial Conference on Transport.

44. The Regional Meeting on Harmonization of Legal Instruments and Documentation for Cross-border and Transit Transport by Road held in Bangkok in August 2016 also discussed the draft model multilateral permit for international road transport and acknowledged it as a useful tool for implementing in a simplified way existing and recently negotiated multilateral international agreements. At the same time the model could be used to incentivize increased professionalism of transport operators and improved technical conditions of vehicles. The Meeting agreed to submit the model<sup>10</sup> for adoption at the Ministerial Conference.

45. The secretariat is exploring further ways to support members' efforts to facilitate international transport in the ESCAP region. One possible way under consideration is the establishment of a multilateral permit system along the Asian Highway network. The Regional Meeting in Thailand in August 2016 also recognized that there was a need for a regional mechanism for issuing and managing such a system and suggested that the ESCAP secretariat could fulfil this role.

46. The existing and the proposed facilitation models aim to respond to the needs of members and associate members as reflected in the Regional Strategic Framework. Implementation of the models and economic and social developments in the region may mean that the Framework will need to be evaluated and reviewed in the future. It may need to be taken to a higher level as a regional intergovernmental agreement on transport facilitation, depending on the needs expressed by members and associate members.

### **III. Strengthening international railway transport in Asia and beyond**

47. Transport is a key driver for sustainable development. As per the estimates of the International Energy Agency, transport contributed to a quarter of global carbon dioxide emissions, and it is expected that this figure will reach 40 per cent by 2035<sup>11</sup> given the rising demand for transport. It is therefore imperative to decarbonize transport and reduce its carbon footprint to contribute to solutions for addressing climate change.

48. Railway transport is an energy efficient, environmentally friendly means of transport and therefore needs to be encouraged. With proper policy initiatives, railway transport can foster regional economic cooperation and integration, create employment opportunities and raise the productivity levels and competitiveness of economies by reducing transport costs. Railway transport is particularly important for the landlocked developing countries in providing them efficient access to sea.

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<sup>8</sup> E/ESCAP/MCT(3)/WP.2, annex II.

<sup>9</sup> E/ESCAP/MCT(3)/WP.2, annex III.

<sup>10</sup> E/ESCAP/MCT(3)/WP.2, annex IV.

<sup>11</sup> José Viegas, "Decarbonising Transport", 29 February 2016. Available from <https://transportpolicymatters.org/2016/02/29/decarbonising-transport/>.



49. The entry into force in 2009 of the Intergovernmental Agreement on the Trans-Asian Railway Network clearly demonstrated the willingness of member States to work collaboratively to develop international railway transport in the region. The rising inter- and intraregional trade, together with the 2030 Agenda for Sustainable Development and the Sustainable Development Goals, provides further impetus to strengthen railway transport linkages among countries.

50. During the past five years, the number of railway freight train routes connecting Asia and Western Europe has increased gradually. Apart from the main Trans-Siberian line, other routes through Central Asian countries are also being used. Since 2010, a weekly service has been carrying automotive parts for BMW from the manufacturer's site in Germany to its assembly plant in China. In 2014 and 2015, other ventures were tested with the launch of services between locations in China and Germany, Poland, Spain and the Netherlands. The first direct container train operated successfully between China and the Islamic Republic of Iran in January 2016. Passing through Kazakhstan, Kyrgyzstan, Uzbekistan and Turkmenistan, the 32-container train covered a distance of 10,399 km in 14 days.<sup>12</sup> Other services have also been put in place between Central Asia and ports of the Islamic Republic of Iran, as well as between the Islamic Republic of Iran and Pakistan and Turkey.

51. The existence of two different legal regimes for many years was a critical issue for international railway transport between Asia and Europe. There were two main railway consignment notes: the Agreement on International Railway Freight Communications for members of the Organisation for Co-operation between Railways and the International Convention concerning the Carriage of Goods by Rail for the members of the Intergovernmental Organisation for International Carriage by Rail. To overcome the challenges of reconsignment at border interchange stations, a common consignment note was introduced in 2006 and this has provided greater legal certainty and also reduced times at border crossings.

52. However, estimates by the Organisation for Co-operation between Railways suggest that it currently may still take up to 74 hours to complete the border crossing procedures. Freight trains stop at border crossings to complete regulatory procedures, such as customs, immigration and sanitary inspections and visa formalities for the crew. They also need to complete operational requirements such as wagon and locomotive inspection, checks for dangerous goods and dealing with break-of-gauge. This clearly indicates room for substantial improvement in reducing times for completing formalities at the borders, strengthening coordination among different regulatory agencies and railway authorities to eliminate duplication, and starting unrelated operations in parallel to reduce the overall time required to complete the formalities.

53. To make railways attractive to shippers on a regular basis, it is critically important to increase the reliability and predictability of freight train services. To this end, railway border crossing procedures need to be streamlined to reduce delays. International railway transport can be further facilitated in the region by developing common minimum technical standards for cross-border railway operations in critical areas, including rolling stock, axle load, signalling, electric traction, minimum clearance space requirements and restrictions over bridges.

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<sup>12</sup> Stephen Burgen, "The silk railway: freight train from China pulls up in Madrid", *The Guardian*, 10 December 2014. Available from [www.theguardian.com/business/2016/feb/15/chinas-silk-road-revival-steams-ahead-as-cargo-train-arrives-in-iran](http://www.theguardian.com/business/2016/feb/15/chinas-silk-road-revival-steams-ahead-as-cargo-train-arrives-in-iran).

54. During its seventy-first session, held in Bangkok in May 2015, the Commission adopted resolution 71/7, which contained the Regional Cooperation Framework for the Facilitation of International Railway Transport. This Framework comprehensively addressed facilitation issues specific to international railway transport. In the resolution, the Commission affirmed the commitment of member States to work together to develop efficient railway transport in Asia and between Asia and Europe.

55. The Regional Cooperation Framework identified four fundamental issues and eleven areas for cooperation among members for the facilitation of international railway transport. The fundamental issues identified are (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.

56. The eleven areas for cooperation indicated in the Regional Cooperation Framework are:

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

57. In order to support members and associate members in implementing the Regional Cooperation Framework, the secretariat is undertaking a project on the harmonization of rules and regulations for the facilitation of international railway transport. The project aims to develop (a) common minimum technical standards for the operational and technical parameters required for efficient international railway transport and (b) a model/manual of good practices at border interchange stations to reduce times in regulatory controls for international railway operations.

#### **IV. Operationalizing integrated intermodal transport systems**

58. Road and rail remain dominant transport modes together or individually for the majority of the members and associate members. In many cases, the comparative advantages of each of these modes are not fully utilized to the benefit of national economies. Efficient road and rail transport are critical for the functioning of integrated intermodal transport systems. However, to operationalize such systems, countries will need to establish

strong intermodal interfaces among all modes of transport so as to use each mode of transport according to its strengths. Planning and developing efficient multimodal transit and transport corridors may help to hasten the operationalization of integrated intermodal transport systems, as it may be comparatively easier to bring all stakeholders together and agree on facilitated procedures for their implementation along the selected transport/transit corridors.

#### **A. Establishing strong intermodal interfaces**

59. The Intergovernmental Agreement on Dry Ports entered into force in April 2016. Together with the existing Intergovernmental Agreements on the Asian Highway Network and Trans-Asian Railway Network, it will provide renewed impetus to the coordinated development of dry ports of international importance. Efficient operations at the dry ports will play a vital role in realizing the vision of an integrated intermodal transport system for the region.

60. For seamless transport under an integrated intermodal transport system it is critical to enhance the efficiency of dry ports/seaports/airports/intermodal terminals where mode changes take place. Studies have consistently shown that the time taken for cargo to move from a dry port/sea port to rail/road and vice versa constitutes a major part of the overall transport time.

61. A recent ESCAP study on the planning, development and operation of dry ports found that delays due to multiple border procedures can be substantial. It also found that if the average dwell time of import containers is reduced from seven to three days the annual throughput of a typical container terminal can be expanded by 150 per cent, thereby reducing the overall transport costs.<sup>13</sup>

62. The dry ports in the region have divergent practices for clearance of goods that lead to the duplication of procedures/cumbersome documentation/multiple inspections, which all increase the time and cost of transportation of goods. There is therefore a need to harmonize rules and regulations for dry ports to strengthen the critical links of the intermodal supply chains.

63. The issues that need to be addressed to increase the effectiveness of dry ports include, but are not limited to, standardized and advance information exchange between gateway ports and dry ports and between dry ports; efficient and effective guarantee management systems for the movement of goods between dry ports and gateway ports as well as between dry ports; streamlined border crossing processes and/or inspections only at origin or destination, no inspections at border crossings or ports for transit cargo; introduction of the concept of trusted transport operators; efficient and standardized trans-shipment procedures at gateway ports and dry ports; simplified and modern customs procedures, such as pre-arrival intimation, risk management and coordination among agencies; standardization of clearance procedures at dry ports of international importance; mutual recognition of control measures; and efficient linkages with railways/waterways/air transport modes.

<sup>13</sup> See [www.unescap.org/resources/study-planning-development-and-operation-dry-ports-international-importance](http://www.unescap.org/resources/study-planning-development-and-operation-dry-ports-international-importance).

64. Streamlined rules and regulations for dry ports will contribute substantially to increasing the efficiency of transport/transit corridors in fostering regional cooperation and pave the way for sustainable development among countries.

65. At the request of members and associate members, the secretariat plans to undertake studies and organize meetings/seminars to share good practices among and develop guidelines for efficient operations at dry ports of international importance.

## **B. Moving towards integrated intermodal corridors**

66. International conventions and regional, subregional and bilateral agreements on transport facilitation play an important role in harmonizing legal and regulatory frameworks for international transport in the region. However, signing an agreement is only the first step in the process; further approval formalities are needed for its entry into force and implementation.

67. Ratification or approval procedures differ from country to country and can be complex and time consuming. Some countries need to amend existing domestic laws or regulations prior to ratification or approval. If corresponding laws or regulations do not exist, new laws or regulations have to be prepared and enforced first. As a result, many agreements have not been duly ratified or approved, which impedes further steps towards practical implementation; as a result, regional operational transport connectivity remains patchy and fragmented.

68. The process of operationalizing the infrastructure connecting countries in the region and beyond seems to take the longest time of all transport facilitation efforts. Planning and developing efficient transport/transit corridors facilitation agreements can obviate some of these challenges. As most of the international freight traffic flows on well-known routes, it may be comparatively easier to bring all stakeholders together and agree on facilitated procedures for their implementation along the selected transport/transit corridors.

69. The connection between transport/transit corridors and sustainable development has been emphasized in General Assembly resolution 69/213 of 19 December 2014.

70. Despite geographic proximity, intraregional trade in South and South-West Asia is among the lowest within the ESCAP region; one of many reasons for this is the lack of efficient transport linkages among the countries. To enhance transport connectivity in South and South-West Asia, the secretariat, together with member States, has held a series of policy dialogues on strengthening transport connectivity. The first was held in Dhaka in June 2013, the second in Lahore, Pakistan, in December 2013, the third in New Delhi in November 2014, and the fourth in Tehran in December 2015.

71. During these policy dialogues, countries have strongly supported the development of a master plan to strengthen transport connectivity for the subregion, in close consultation with ESCAP members and development partners. Such a master plan would prioritize the operationalization of road/rail and intermodal transport corridors to enhance transport connectivity in the subregion through, inter alia, the use of ESCAP transport facilitation tools and frameworks.

## C. Maritime transport connectivity

72. Maritime transport is the backbone of international trade. Eighty per cent of the total global trade volume and 70 per cent of total trade, when measured in monetary value, is seaborne cargo. The United Nations Conference on Trade and Development's *Review of Maritime Transport 2015* also reported that 9.8 billion tons of cargo was loaded in international seaborne trade, an increase of 3.4 per cent from 2013.<sup>14</sup>

73. Maritime transport is one of the key engines driving inter- and intraregional trade, given that important trade routes traverse the Pacific and Indian Oceans. Hence, maritime connectivity is an important enabling factor to promote trade and economic development. Among small island developing States as well as large archipelago countries such as Indonesia and the Philippines, maritime linkages are survival lifelines.

### 1. International shipping

74. The importance of maritime transport also applies to mainland countries; international maritime transport has a profound importance in supporting international trade and exchanges, thus contributing immensely to socioeconomic development. Leading economies like China, France, Germany, the Republic of Korea and the United States of America rely heavily on seaborne cargo for their imports and exports. Major trading economies usually have good maritime transport connectivity. According to the Liner Shipping Connectivity Index of the United Nations Conference on Trade and Development 2016,<sup>15,16</sup> China (167 over 100), Singapore (122) and the Republic of Korea (115) are among the world best performers.

75. Recognizing the importance of international maritime transport, some ESCAP members and associate members have invested heavily in ports infrastructure. Import/export regulations have been streamlined to facilitate efficient clearance of cargo. Information and communications technology is also widely deployed to create e-port logistics systems to improve port services and increase transparency by allowing cargo tracing and tracking, thereby fulfilling administrative requirements and sharing relevant transport and logistics information.

76. Nevertheless, in some countries, heavy infrastructure investment and facilitation efforts stop at the ports. Hinterland infrastructure connectivity and facilitation remain weak; in the end this creates bottlenecks in the immediate areas connecting to the ports and indirectly affects the functioning of the ports. There is no use unloading and clearing cargo in a fast and efficient manner if the cargo cannot be transported out of the ports effectively. Therefore, more efforts are needed to include hinterland connectivity as part of national port investment/improvement plans.

<sup>14</sup> United Nations publication, Sales No. E.15.II.D.6.

<sup>15</sup> The index is computed based on five components: number of ships, container carrying capacity, maximum vessel size, number of services and number of companies that deploy container ships in the country's port. See <http://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=92>.

<sup>16</sup> The index is based on the maximum value of the year 2004, which is 100; namely, China's 2004 value equaled index 100.

## 2. Coastal shipping

77. Many countries located on the Asian continent have long littoral lines. Despite having long coast lines, land transport is usually the dominant mode used in the movement of goods.

78. Overall, the share of coastal shipping in domestic freight movement is minor in the ESCAP region. For example, in India coastal shipping accounted for only 7 per cent of the total weight tonnes of domestic cargo movement.<sup>17</sup> In Australia, 17 per cent of freight is moved by coastal shipping. Cargoes transported are usually bulk cargoes such as coal, minerals and petroleum products.<sup>18</sup>

79. In Japan, according to the statistics published by the Ministry of Land, Infrastructure, Transport and Tourism in 2011, the share of coastal shipping was merely 7 per cent when measured by weight tons. However, if the cargo distance is factored in, the share of coastal shipping increased to 41 per cent (measured in ton-km).<sup>19</sup> This clearly shows coastal shipping as the preferred mode, over trucks, for long distance transportation of freight.

80. Coastal shipping is particularly well suited for long distance transportation of bulk cargoes at lower cost. Increasing congestion on road networks and rail infrastructure indicates that coastal shipping is a more and more attractive, viable and sustainable alternative, which can complement land transport. The Governments of Bangladesh and India are among the first to have recognized the potential of coastal shipping, and they signed an agreement on coastal shipping between their two countries in 2015.

## 3. Capacity-building

81. As part of the wider work programme to enhance the knowledge and human resource capacity of ESCAP members and associate members, as well as of the private sector, for the implementation of measures to improve the efficiency of international transport operations and logistics, the secretariat will undertake a project to update the ESCAP Training Manual on Maritime Transport. The Training Manual will be updated to provide relevant information and training on legal aspects of cargo shipments for maritime transport. The target audience includes national logistics service providers involved in maritime transport. The Training Manual will be divided into several modules to focus on particular topics of relevance, such as shipping documents preparation, packaging standards, requirements on carriage of dangerous goods, classification of ships and shipboard operations among others.

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<sup>17</sup> The Indian Express, “Coastal shipping: A much needed boost”, 2 September 2015. Available from <http://indianexpress.com/article/india/india-others/coastal-shipping-a-much-needed-boost/>.

<sup>18</sup> Australia, Department of Infrastructure and Regional Development, “Coastal Shipping”. Available from [https://infrastructure.gov.au/maritime/publications/pdf/Shipping\\_Reform\\_Fact\\_Sheet.pdf](https://infrastructure.gov.au/maritime/publications/pdf/Shipping_Reform_Fact_Sheet.pdf).

<sup>19</sup> See <http://www.jpmac.or.jp/img/relation/pdf/epdf-p09-10.pdf>.

## V. Enhancing the competitiveness of transport logistics services in the region

### A. Setting up logistics information systems to reduce logistics costs

82. Most developing countries in the region suffer from high logistics costs owing to the poor performance of the logistics sector, which is a serious impediment to more significant, sustained economic growth.

83. According to the 2016 Logistics Performance Index,<sup>20</sup> the region has an overall score of 2.9 (5.0 being the highest), which is below North America (4.0) and the European Union (3.6). Within the region, there are substantial differences between performers in the logistics sector, reflecting the logistics services divide among members and associate members. Australia, Japan, Singapore and Hong Kong, China were ranked among the world's 20 best, but on the other end of the spectrum, five members or associate members were in the world's lowest ranking. It is worth noting that similar results were reflected in the World Economic Forum's Enabling Trade Index 2014 rankings, confirming the importance of the transport and logistics sector as the rudder to better trade facilitation and economic development.

84. The East and North-East Asia subregion outperformed other subregions in the Logistics Performance Index, with a score of 3.6, followed by South-East Asia and the Pacific with a score of 3.0. In 2016, South and South-West Asia had an average score of 2.7, while North and Central Asia scored 2.3. Landlocked developing countries collectively performed relatively weakly, with an average score of 2.3. Underdeveloped infrastructure, complex cross-border formalities, frequent and unpredictable changes of regulations, and the quality of logistics service providers are among the factors that impact logistics performance. The overall Logistics Performance Index figures show there is room for substantial improvement in many of the ESCAP member and associate member countries.

85. It is no coincidence that countries that were ranked favourably established early on systems using information and communications technology (ICT) solutions for the exchange of logistics information. For example, at the national level, Singapore is one of the pioneers in establishing a secured national electronic logistics platform that facilitates the sharing and exchange of information among trade and logistics stakeholders to serve its national interest. The platform also allows for documentation submissions, enquiries, and payment of duties and fees to relevant entities. With ever increasing cross-border trade and transport movements, transnational logistics information systems become increasingly crucial. In order to maximize their positive effects on intra- and interregional transport facilitation, such systems ought to be interoperable, based on harmonized standards.

86. Private and public logistics information systems exist in the region, but their functionalities are different and members and associate members are at various stages of developing such systems. Even at the national level, there are countries with limited consistency in approaches to the development of logistics information systems, with different data and technical standards being adopted in different countries.

<sup>20</sup> Components which are considered in the calculation of the Logistics Performance Index include: efficiency of customs and border management clearance, quality of trade and transport infrastructure, ease of arranging shipments, service reliability and traceability. Available from <http://lpi.worldbank.org/> (accessed July 2016).

87. In order to support members and associate members in their efforts to use ICT as a key to efficient and effective trade and transport logistics systems, the secretariat organized a group of experts to undertake a comprehensive study to review the technical aspects of existing logistics information systems, identify best practices and draft recommendations on regional technical standards in the establishment and utilization of such systems.

88. The experts met four times and drafted a comprehensive regional study, *The Use of Logistics Information Systems for Increased Efficiency and Effectiveness*,<sup>21</sup> which was discussed at a regional meeting held in Bangkok on 10 and 11 December 2015. The meeting proposed that the study conclusions and recommendations, including the standard model of logistics information systems<sup>22</sup> be submitted for adoption by the Ministerial Conference on Transport. General recommendations to be considered by countries when envisaging to develop logistics information systems include:

(a) The utilization of logistics information technology systems or other ICT resources related to logistics services, in order to establish national logistics information systems as a public platform providing effective and efficient information services as well as future transnational interchanges;

(b) The establishment of a regional mechanism promoting cooperation among countries in the development of national logistics information systems; ideally include therein the coordination of standards and the development of cooperation through a legal framework;

(c) The consideration of government investment or public-private partnerships to fund the development of logistics information systems;

(d) The adoption of the standard model of logistics information systems in the development of national systems.

89. The secretariat benefited from the experiences of the Governments of China, Japan and the Republic of Korea, inter alia, which established the first subregional logistics information interchange platform within the ESCAP region in December 2010, to facilitate trilateral sharing of logistics information.

90. The importance of adopting appropriate technologies to promote seamless international transit transport was highlighted in General Assembly resolution 70/197 of 22 December 2015. The regional standard model of logistics information systems can provide opportunities for easier and greater connectivity, both within and between countries, by laying out a common level of harmonized features as a prerequisite for future systems' interconnectivity.

## **B. Capacity-building for logistics development**

91. The logistics sectors in many ESCAP countries face challenges associated with poor performance and high costs. Low levels of human resource capacity within the sector is identified as one of the main hindrances to developing efficient and effective logistics systems in the region. Logistics service providers in some countries lack access to quality training programmes. In addition, standards for training programmes differ widely within and across countries.

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<sup>21</sup> See [www.unescap.org/resources/regional-study-use-logistics-information-systems-increased-efficiency-and-effectiveness](http://www.unescap.org/resources/regional-study-use-logistics-information-systems-increased-efficiency-and-effectiveness).

<sup>22</sup> E/ESCAP/MCT(3)/WP.2, annex V.



92. The importance of building capacity by improving the professional skills of the personnel involved in transport and logistics is widely recognized, and so are the benefits of establishing regional standards in training certification. The secretariat created guidelines for establishing sustainable accredited training systems for freight forwarders, multimodal transport operators and logistics service providers in Asia and the Pacific region. The guidelines explore ways to establish regional standards for training programmes for transport and logistics service providers, in cooperation with relevant national authorities and private stakeholders. Successful participants in accredited training programmes will be awarded ESCAP certifications, which are recognized by countries within the region.

### **C. Regional Conference for Logistics Service Providers**

93. Acting to fulfil the need to enhance professionalism and competence of logistics service providers, the Regional Conference for Logistics Service Providers, previously known as the Regional Conference/Forum for Freight Forwarders, Multimodal Transport Operators and Logistics Service Providers, is an annual event that has been held since 2007 in conjunction with the International Federation of Freight Forwarders Associations Region Asia-Pacific Field Meeting. The Conference provides a platform where challenges in transport facilitation and logistics are discussed and solutions are often identified. It enables the secretariat and national associations of logistics service providers (such as freight forwarders associations) as well as ESCAP members and associate members to share knowledge and experience, and discuss emerging issues, challenges and achievements related to the development of logistics services in the Asia and Pacific region. Issues raised during the Conference that may be of general relevance are collected and disseminated widely. For example, in June 2015, the secretariat released policy briefs on container deposits and block exemptions to address Conference participants' concerns.

## **VI. Issues for consideration**

94. The delegations may wish to adopt the model subregional agreement on transport facilitation, the model bilateral agreement on international road transport, the model multilateral permit for international road transport and the standard model of logistics information systems.

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

96. The delegations may wish to provide further guidance on the following elements proposed for inclusion in the draft regional action programme for sustainable transport connectivity in Asia and the Pacific, phase I (2017-2021).

97. The demand for transport connectivity in the region has grown rapidly owing to high economic growth in many countries. Progress has been made in developing transport infrastructure but more needs to be done in terms of its operationalization. A fragmented approach, lack of integration, high logistics costs and inefficiency are the main obstacles to seamless regional transport operational connectivity.

98. Eliminating non-physical barriers to international transport, developing integrated intermodal transport systems at the national, subregional and regional levels that optimally combine the strengths of various modes of transport and reducing transport logistics costs will help to achieve regional transport operational connectivity in the region.

### **Immediate objectives**

1. Regional transport operational connectivity is to be enhanced through strengthened transport facilitation measures, including harmonization of transport technical and operational standards, regulations and practices; understanding and use of new technologies; as well as implementation of transport facilitation tools and frameworks;
2. Integrated intermodal transport systems are to be developed and operationalized by using existing capacities and infrastructure more effectively, enhanced network connectivity resulting from better interconnected and compatible transport networks throughout the region, transfer facilities, harmonization of technical standards and the definition of common legislative frameworks;
3. Transport logistics services are to be increased in the region by building capacity and establishing logistics information systems to improve logistics efficiency and reduce costs.

### **Outputs**

1. Studies/workshops/technical assistance on the implementation of the Regional Strategic Framework for the Facilitation of International Road Transport and the Regional Cooperation Framework for the Facilitation of International Railway Transport;
2. Studies/workshops/advisory services for assessing, designing and implementing integrated intermodal transport systems as a key element of sustainable transport connectivity, including maritime, land and air transport;
3. Assistance/advisory services/workshops on the formulation and implementation of legal instruments and on the harmonization of technical standards for operationalizing transport connectivity;
4. Studies/workshops on the application of new technologies to facilitate international maritime, road, rail and intermodal transport;
5. Updating of transport facilitation tools to reflect technological progress and the evolving needs of operational connectivity and related studies/workshops/advisory services on their application;
6. Studies/workshops on strengthening intermodal interfaces at dry ports, intermodal terminals, sea and air ports and for operationalizing integrated intermodal transport corridors;
7. Technical assistance/workshops/seminars/training courses for capacity-building for logistics services professionals and in establishing effective mechanisms for efficient logistics services, including regional meetings of logistics service providers and their national associations;
8. Study/workshop/advisory service on enhancing maritime operational connectivity.

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**Indicators of achievement**

1. An increased number of measures/initiatives taken under the regional frameworks for the facilitation of international road and railway transport for establishing an efficient integrated intermodal transport system to support regional economic cooperation and integration.
  2. Operationalization of an integrated intermodal transport system at the regional level as a key element of sustainable transport connectivity, including maritime, land and air transport.
  3. Enhanced knowledge and skills among members and associate members on formulating and implementing legal instruments and technical standards for operationalizing regional transport connectivity, regional transport operational connectivity, including transport facilitation, integrated intermodal transport, maritime transport connectivity and logistics.
  4. Increased support to members and associate members in the application of transport facilitation tools reflecting technological progress and the evolving needs of operational connectivity.
  5. Enhanced use of information and communications technology and related new technologies to facilitate international maritime, road, rail and intermodal transport.
  6. Enhanced regional transport operational connectivity, including transport facilitation, integrated intermodal transport, maritime transport connectivity and logistics.
  7. Strengthened capacity of members and associate members in establishing effective mechanisms for providing efficient logistics services through the improved skills of freight forwarders, multimodal transport operators and logistics service providers and their national associations.
  8. Improved maritime operational connectivity.
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