
**Thematic Working Group on Sustainable Transport, Transit and
Connectivity (TWG-STTC)**

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**Identification, isolation and elimination of major bottlenecks along international
transport routes**

(Item 4.4 of the Agenda)

Note by ECE/ESCAP

ECE activities on border crossing facilitation

1. The strategic importance of Central Asia makes it a unique region, and this is highlighted by its connective potential as a transport hub between two continents. The region also faces unique challenges, where all of the SPECA member countries are landlocked with divergent economic development.
2. Within the SPECA framework, ESCAP and the ECE offer capacity-building and other forms of technical assistance that contribute to the efficient and safe operation of regional transport infrastructures and the identification of bottlenecks. The numerous UN transport legal instruments administered by ECE, as well as ECE analytical, capacity building and technical assistance activities provide a solid basis for the development of harmonized regulatory frameworks for regional transport, particularly in the SPECA region.
3. Introduction, facilitation and development of international transport have always been a major objective of national Governments. However, since vehicles in international transport cross borders, facilitation and development of international transport raise specific problems, the solution of which requires cooperation and agreement among Governments. The objective of this cooperation is to develop coherent international infrastructure corridors and networks, simplified border-crossing and uniform rules and regulations that enable a high level of efficiency, safety and environmental protection in transport.

4. UNECE provides these indispensable intergovernmental cooperation platforms and addresses transport, across five key areas – accessibility, affordability, safety, security and environmental impact. Particularly as concerns SPECA countries, UNECE and its transport sub-programme has a special role to play in realizing these goals, given its long-standing expertise in the region and the availability of a vast array of tools and legal instruments.

International Convention on the Harmonization of Frontier Controls of Goods

5. Taking the international legal framework as a starting point, it should be mentioned that among the vast array of available UN transport legal instruments, several are aimed at the simplification and harmonization of procedures at border crossings and some are most prominent, broadly used in the SPECA region. For example, the International Convention on the Harmonization of Frontier Controls of Goods¹, generally known as the “Harmonization Convention” forms one of the most broadly accepted legal foundations of coordinated border management. There are 58 Contracting Parties² to it, including all SPECA countries except Afghanistan. Turkmenistan acceded to the Harmonization Convention on 27 November 2016, on the occasion of the first Global Sustainable Transport Conference convened by the Secretary-General of the United Nations. Contracting Parties are committed to streamlining administrative procedures at borders and reducing the number and duration of controls carried out by customs authorities.

6. On 30 November 2011, Annex 9 on rail border crossings to the Harmonization Convention entered into force. The Annex introduced key principles for the facilitation of border crossing procedures for international rail freight. Since that time, the Working Party on Rail Transport (SC.2) has developed an action plan for monitoring its implementation at the national level.

7. The plan includes actions to facilitate the issuance of visas for professionals in the railway industry; to develop cooperation mechanisms for border and other controls; to enhance risk assessment and evaluation procedures; and to set time limits for technical operations. The action plan was presented and approved at the sixty-ninth session of SC.2 (23–25 November 2015) and can be found in document ECE/TRANS/SC.2/2015/6. SC.2 continued discussions on this topic at its seventieth session in 2017. The secretariat emphasized the importance of carrying forward the

¹ Detailed information on Harmonization Convention, TIR Convention, eTIR project and other customs transit facilitation measures are available on http://www.unece.org/trans/main/itc/itc_doc_2015.html. Please refer to document ECE/TRANS/2015/17.

² https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XI-A-17&chapter=11&clang=_en

work in understanding the effectiveness of Annex 9 in member States (see ECE/TRANS/SC.2/228, para. 51).

8. In 2017, the Working Party on Customs Questions affecting Transport (WP.30), continued its discussions on the development of a new Annex 10 to the Harmonization Convention, to address facilitation of maritime port procedures. However, at its 146th session (June 2017), WP.30 established that, while fully respecting the clear request from the Inland Transport Committee (ITC) to develop such Annex and with due respect to all the efforts undertaken so far in preparing a suitable draft, the declaratory and repetitive nature of the text (in particular with regard to the International Maritime Organization (IMO) Convention on Facilitation of International Maritime Traffic (FAL)) led to the conclusion that there was insufficient support among the participants of WP.30 to continue this exercise. Thus, the Working Party requested the secretariat to remove this item from its agenda and report accordingly to ITC at its 2018 session.

Development of a new Convention on rail border crossings for passengers and their luggage

9. In 2017 and 2018, further to the road map established by the Working Party on Rail Transport (SC.2) at its seventieth session (November 2016), the Working Party continued its deliberations of the draft text of a new convention on the Facilitation of border-crossing procedures for passengers, luggage and load-luggage carried in international traffic by rail (see ECE/TRANS/WP.30/2018/6/Rev.1 for the full text). At various sessions, the delegation of the European Union stated that it was not likely for it or its member States to accede to the draft convention, as the draft did not seem to bring any advantages for the European Union policies on railways and customs and could even be in conflict with the European Union acquis on border management. On the other hand, OSJD continued to advocate the need for the development of a new convention, mainly because the existing 1952 convention was outdated and did not fulfil modern railway requirements. He further mentioned that, while this project is actuality for European States, at the same time it serves the specific interest of countries like China, Kazakhstan, Mongolia and other countries of Central Asia. The delegation of the Russian Federation supported the position of OSJD, stressing its relevance for the Eurasian continent as a whole. In its view, the draft convention would serve as a base document for concluding multilateral and bilateral agreements.

10. At the June 2018 session of the Working Party, the delegation of Azerbaijan reiterated its support to continue discussing the draft convention but reported that interagency consultations on a final position were still ongoing. The delegation of Iran (Islamic Republic of) stated that due to ongoing legal issues a final position was still under consideration. The delegation of Armenia

expressed its support for the draft convention. The delegation of the European Union stated that internal procedures on a common position had not yet been finalized. The delegation of Switzerland informed the Working Party that interagency consultations were taking place but that the Federal Transport Ministry had challenge the advocated advantages of the draft convention. The delegation of the EEU stated that the drafter had taken all comments by EEU into account and that, therefore, the Eurasian Economic Commission and the EEU member States were ready to adopt the draft Convention. The delegation of Turkey expressed its support for the draft convention, while pointing at alternative proposals for Article 27, introducing a distinction between contracting parties having accepted amendments and those that considered themselves not being bound by them. The delegation of the Russian Federation stated that, at a first glance, a number of proposals seemed of an editorial nature or were already covered by other provisions of the draft convention. The proposals for Article 27 merited further study in order to come to a mutually satisfactory wording..

The Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention)

11. The Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention), of 1975, sets up the procedure that permits the international carriage of goods by road vehicles or containers from one customs office of departure to a customs office of arrival, through as many countries as necessary, without intermediate check of the goods carried and without the deposit of a financial guarantee at each border. The procedure includes the use of secure vehicles, an international guarantee chain, set up under the Convention, to cover duties and taxes at risk throughout the journey and each vehicle must carry an international customs document (TIR Carnet) which certifies the contents of the cargo as checked at the customs office of departure. All this results in minimum procedures and delays at borders and in lower transport costs, which in turn results in lower export and import costs.

12. It should be noted that, since the previous report, the TIR Convention has acquired three new Contracting States namely the State of Palestine, Qatar and Saudi Arabia. The Convention now has 74 Contracting Parties, whereas TIR operations can be established with 61 countries.

13. In 2017, WP.30 and the TIR Administrative Committee (AC.2) sustained their efforts towards considering and finalizing a comprehensive set of amendment proposals to the TIR Convention. At its sixty-sixth session (October 2017), AC.2 adopted the set, which includes, inter alia:

- The increase of the recommended maximum amount to be claimed from the guaranteeing association from 50,000 \$ to 100,000 euros;
- The introduction of reinforced possibilities for AC.2 to examine the audited financial statements submitted annually by the international organization authorized to manage the international guarantee system and to print and distribute TIR Carnets, including the right to request additional examinations;
- Amended requirements for the international organization with regard to record keeping and engaging an independent external audit;
- The insertion of the term “customs” before “frontier” in Article 2 of the convention, clarifying that for the TIR Convention to become applicable at least one customs border needs to be crossed.

14. The intergovernmental process towards the computerization of the TIR procedure (eTIR), has gained momentum. In Geneva, TIR Contracting Parties, including SPECA countries, have concluded the work on the technical and conceptual aspects of eTIR and established a dedicated expert body to work on developing the appropriate legal framework for computerization. The legal Expert Group concluded its mandate in 2017 and transmitted, to the governing bodies of the TIR Convention, a proposed comprehensive legal framework for the operationalization of eTIR in the form of a new optional Annex (Annex 11) to the TIR Convention, for the consideration of Contracting Parties and its, eventual, adoption. At the same time, the two pilot projects successfully demonstrated the feasibility of eTIR. A Memorandum of Understanding (MoU) and a Contribution Agreement were concluded between UNECE and the International Road Transport Union (IRU) on 6 October 2017, which provide, inter alia, funding for UNECE Information and Communication Technology (ICT) related activities for future projects to be launched in the framework of this MoU. The aim of the collaboration is focused on devising and launching new projects to further explore all aspects related to the computerization of the TIR procedure and find synergies between existing projects. An intermodal eTIR project between Azerbaijan, Georgia, Kazakhstan and Ukraine is being considered.

Developments in cross-border transport facilitation in ESCAP region

15. In order to improve the efficiency of international transport routes and corridors, both transport infrastructure and operational connectivity issues need to be addressed. Major bottlenecks along international transport routes ought to be identified, isolated and eliminated.

16. The existence of non-physical barriers negatively affects the efficiency of international road transport and increases logistics costs. Going forward, effective regional road transport will require political commitment and institutionalization of the integration processes, including removal of non-physical barriers to transport and ensuring harmonization of regulations and norms along with standardizing technical and operational requirements and cross-border procedures.

17. The Third Session of the Ministerial Conference on Transport held on 5-9 December 2016 in Moscow, Russian Federation adopted a set of new transport facilitation tools, namely the model bilateral agreement on international road transport, the model subregional agreement on transport facilitation, the model multilateral permit for international road transport and the standard model of logistics information systems. These raise to eight the number of mutually complementary transport facilitation models developed by ESCAP. More detailed information about ESCAP transport facilitation frameworks and tools are available in Annex 1 of current document.

18. During the Conference, China, Mongolia and the Russian Federation signed the Intergovernmental Agreement on International Road Transport Along the Asian Highway network. It is the first agreement to formalize the use of the Asian Highway for international road transport operations. The agreement will be open for accession by other Asian Highway member countries to further enhance regional connectivity. Please see: <http://www.unescap.org/events/ministerial-conference-transport-third-session>

19. As for railway transport, due to imperatives of sustainable development and consequently to encourage sustainable modes of transport many countries in the region are developing railways as a preferred mode of transport. These initiatives need to be supported as railway transport is energy efficient and environmentally friendly, however railways require huge investments and therefore railway transport projects need to be planned and implemented so as to create maximum synergies.

20. To exploit transit potential between Asia and Europe most countries in Central Asia and those adjoining it are making efforts to improve railway transport and numerous projects are underway to provide connectivity between Asia and Europe through Central Asia and the South

Caucasus. However, challenges persist, many related to the complexity of formalities and procedures. In order to support members and associate members in implementing the 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) commonly agreed technical standards and harmonized operational procedures for efficient international railway transport and (b) a model/manual of railway border crossings practices to reduce time for regulatory controls for international railway transport operations.

21. The situation regarding technical and operational interoperability of railways is not clear and there appears to be a divergence in various technical standards and operational procedures among countries that challenges international railway transport in the region and beyond. Further, to help modal shift and 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 administrative burdens and delays.

ESCAP activities for cross-border transport facilitation

22. Asia-Europe connectivity remains dominated by sea and air routes. Transport over land is underutilized because land routes are heavily impeded by missing and substandard links in the infrastructure networks as well as by complex and non-harmonized cross-border and transit transport documentation, formalities and procedures. These are not hampering the inter-regional exchanges only, but also impact the intra-regional connectivity along the Eurasian corridors. In this connection, ESCAP is undertaking a study to identify infrastructure gaps and challenges, assess existing operational status, and propose mechanisms and measures to improve the efficiency, effectiveness and seamlessness of transport and logistics along three major corridors connecting Asia and Europe by road and railway under the project “Comprehensive planning of Eurasian Transport Corridors”. In this connection, two Expert Group Meetings were organized in Beijing, China on 5-6 July 2017 and in Istanbul, Turkey on 20-21 September 2017.

23. ESCAP organized a Subregional Meeting on Rail-based Intermodal Transport in Northeast and Central Asia from 18 September 2017 to 19 September 2017 in Bangkok, Thailand under a project entitled “Development of seamless rail-based intermodal transport services in Northeast and Central Asia for enhancing Euro-Asian transport linkages”. Under the project, ESCAP has prepared study reports on “Documentation and Procedures for the Development of Seamless Rail-Based Intermodal Transport Services in Northeast and Central Asia”, including a proposed unified multimodal transport document, and on “Information Technology for Seamless Rail-

Based Intermodal Transport Services in Northeast and Central Asia to Enhance Euro-Asian Transport Linkages”. The Final Expert Group Meeting on Comprehensive Planning of Eurasian Transport Corridors and Intermodal Transport in North-East and Central Asia was also held from 7 November to 8 November 2017 in Bangkok, Thailand to finalize the studies undertaken under the projects on “Comprehensive planning of Eurasian Transport Corridors to strengthen the intra- and inter-regional transport connectivity” and “Development of seamless rail-based intermodal transport services in Northeast and Central Asia for enhancing Euro-Asian transport linkages”.

24. As part of its work to establish an international integrated intermodal transport and logistics system for the region ESCAP has conducted two studies under the project entitled “Development of seamless rail-based intermodal transport services in Northeast and Central Asia for enhancing Euro-Asian transport linkages”. They were related to (i) the simplification of documentation, and (ii) the deployment and use of information technology for rail-based intermodal transport services, including a number of recommendations which were reviewed and adopted by the countries concerned at a subregional meeting held in Bangkok on 18-19 September 2017. With a view to summarize the outcome of the project, ESCAP, in partnership with the Ministry of Transport of the Russian Federation, Russian University of Transport and Coordinating Council on Trans-Siberian Transportation, organized the Seminar on Development of Rail-based Intermodal Transport for Enhancing Euro-Asian Transport Connectivity in Moscow on 7 December 2017 as a side event to the “Transport Week-2017” organized by the Ministry of Transport of the Russian Federation. The Seminar discussed the way forward towards implementing the recommendations of the study, in particular those relating to the exchange of electronic data among intermodal transport operators to enhance intermodal transport services along the corridors connecting countries of Northeast and Central Asia to Europe.

Harmonizing rules and regulations for facilitation of international railway transport

25. Despite the efforts for improvement of physical transport connectivity, the railway networks remain underutilized due to both technical and institutional factors. The comparative advantages of the railway transport are still not fully harnessed, and more initiatives need to be undertaken to strengthen international railway transport. The missing links on Trans-Asian Railway Network are under various stages of development. In the meantime, to strengthen railway transport in Asia and between Asia and Europe, it is imperative to develop and implement ‘soft’ measures to facilitate international railway transport.

26. The need for such measures for facilitation of international railway transport was recognized by the countries in the region with the adoption of ESCAP resolution 71/7 on Regional Cooperation Framework for the Facilitation of International Railway Transport. The Framework underscores the importance for member countries to work together to develop efficient international railway transport by addressing four fundamental issues identified and working cooperatively on eleven areas suggested in the framework. To implement resolution 71/7, the secretariat undertook a project on Harmonization of rules and regulations for facilitation of international railway transport in the region. Three studies were commissioned under the project.

27. The first study on border crossing practices in international railway transport³ documents the processes at few selected railway border crossings in the region and proposes measures to enhance the efficiency of the railway border crossings. Border crossing processes play a vital role in facilitation of international railway transport and the delays caused due to completion of border crossing formalities leads to increase transit time, adversely affecting competitiveness of railway transport compared to other modes. The study is expected to increase knowledge of the railway and border officials of the member countries regarding good practices and options to reduce border crossing time to enhance reliability of freight trains.

28. The second study on enhancing interoperability to facilitate international railway transport⁴ along the international railway corridors identifies three dimensions of interoperability. Technical interoperability defined by common technical parameters of railways infrastructure and rolling stock; legal interoperability implying unified contractual obligations vis-a-vis customers from origin to destination; and operational interoperability through harmonized operational practices over a railway corridor. This study aims to enhance the understanding of railways and border agencies of the region on the range of options available to enhance interoperability among railways in all its dimensions to make international railway transport a preferred mode of transport.

29. The third study on electronic information exchange systems for international railway transport reviews the existing systems for electronic exchange of information for international railway transport. Telematics Applications for Freight – Technical Specifications for Interoperability (TAF-TSI) developed for railways in Europe and mandated by European Commission provides practical and institutional measures for use of electronic information exchange in railway transport. Many railways in ESCAP region are also developing electronic

³ <https://www.unescap.org/sites/default/files/Study%20on%20Railway%20Border%20crossings%2046218.pdf>

⁴ <https://www.unescap.org/sites/default/files/Study%20on%20enhancing%20interoperability%20for%20Facilitation%20of%20International%20Rail%20Transport.pdf>

information exchanges systems based on the OSJD leaflets. The Commonwealth of Independent States(CIS) countries established a council for railway transport and have system for exchange of data for railway transport among these countries. The existence of electronic information exchange systems with different technical specifications and legal basis have a potential to disrupt flow of information along international railway corridors. The study would enhance the understanding of the railway and border officials on the use of electronic information exchange systems for international railway transport.

The Thematic Working Group may wish to:

- Support and encourage Member countries to actively participate in the abovementioned activities of the ECE secretariat, as far as border crossing facilitation is concerned, particularly by engaging actively in the TIR computerization process;
- Invite SPECA countries to think about introducing new technologies in the implementation of the UN transport legal instruments by joining those electronically processed (Additional Protocol to CMR (e-CMR), e-TIR);
- Encourage SPECA countries to take actions to support the implementation of the Ministerial Declaration on Sustainable Transport Connectivity in Asia and the Pacific, including a Regional Action Programme for Sustainable Transport Connectivity in Asia and the Pacific, phase I (2017-2021);
- Increase the effectiveness of facilitation programmes and projects and accelerate the development of international road transport through long-term targets in SPECA countries as stipulated in the Regional Strategic Framework for the Facilitation of International Road Transport;
- Support the implementation of the Regional Cooperation Framework for the Facilitation of International Railway Transport to tackle challenges and strengthen cooperation to promote international railway transport;
- Take note and encourage Member countries to use the studies developed by the Secretariat to foster international railway transport in the ESCAP region;
- Encourage the SPECA countries to apply the ESCAP transport facilitation tools.

Regional Strategic Framework for the Facilitation of International Road Transport

25. Keeping in view the need to provide a strategic vision and common approach to address challenges to international road transport in the region, member states adopted the Regional Strategic Framework for the Facilitation of International Road Transport (RSF) at the ESCAP Ministerial Conference on Transport held in Bangkok in March 2012.

26. The RSF identifies six fundamental issues for the facilitation of international road transport and provides long-term targets along with the process to achieve them. It also provides for seven modalities for addressing the challenges to smooth and efficient transport by road in the region.

27. The RSF serves as a primary policy document on transport facilitation initiatives for member countries and their development partners to increase coordination among different facilitation agreements, projects and measures to avoid inconsistency and conflicts in planning, formulation and implementation, and thereby increase the effectiveness of facilitation efforts. This will provide synergistic effect of facilitation measures benefiting member countries and their development partners.

Regional Cooperation Framework for the Facilitation of International Railway Transport

28. Development of international railway transport in the region is confronted with numerous challenges. Typical non-physical barriers include regulatory issues that relate to control measures by various agencies, such as Customs, which take significant time of train operations. There are also legal issues that underlie the legal and contractual basis among countries and various stakeholders in railway transport. The different legal regimes need to be unified or at least harmonized. Technical and operational issues involving standards and specifications for the rolling stock, signaling systems, data exchange, repair, maintenance and use of railway infrastructure, and break of gauge also need to be addressed to promote cross-border railway transport operations.

29. ESCAP at its seventy-first session, held in Bangkok, Thailand from 25 to 29 May 2015, adopted the Regional Cooperation Framework for the Facilitation of International Railway Transport (RCF). RCF identifies four fundamental issues and eleven potential areas for cooperation to promote international railway transport aimed to:

- Increase effectiveness of facilitation measures/projects
- Increase coordination among different facilitation measures/projects
- Avoid inconsistency in facilitation efforts

- Avoid conflict between different facilitation agreements/measures
- Provide direction of future possible development
- Serve as reference and guide

Transport Facilitation Tools

30. Many countries in the region and their development partners have been trying various ways to improve efficiency of cross-border transport by road and rail. However, overall progress is slow. The eight models developed by ESCAP as a complete package can help address non-physical barriers through more flexible and practical arrangements for transport movement en-route and at border crossings, and also for identification and monitoring of bottlenecks. The models together provide a comprehensive package of solutions for cross-border and transit transport among countries. The brief introduction of the models is presented in the following sections.

31. The **Model Subregional Agreement on Transport Facilitation**⁵ has been elaborated on the basis of comparative studies between major sub-regional agreements on transport facilitation to which various ESCAP member States are parties. The Model Subregional Agreement is intended to serve as a common framework for agreements on transport facilitation. The Model can be used for drafting and negotiating new agreements as well as for bringing amendments to existing ones, which will help to expedite the negotiation process of a subregional agreement and to facilitate its subsequent practical implementation. The Model Subregional Agreement provides a checklist of issues typically addressed in sub-regional agreements on transport facilitation. The focus of the model has been on international road transport; hence the checklist of issues is related to a large extent to road transport rather than other modes. It proposes a structure and a brief description of the main elements and specific substantive issues that would be covered by a sub-regional agreement but does not contain uniform wording to be used for all issues. The Model includes a list of recommendations for issues to be settled through additional sub-regional agreements, due to their complexity or specific nature.

32. The **Model Bilateral Agreement on International Road Transport**⁶ has been elaborated based on comparative studies of existing bilateral agreements concluded between the countries of the Asia-Pacific region. The Model proposes ways to harmonize the provisions of existing bilateral agreements which ESCAP member States could follow while negotiating new bilateral agreements or amending the existing ones. Due to different approaches to arranging international road

⁵ <http://www.unescap.org/resources/model-subregional-agreement-transport-facilitation>

⁶ <http://www.unescap.org/resources/model-bilateral-agreement-international-road-transport>

transport operations, it would be hardly possible to propose a uniform model bilateral agreement which all countries of the region would be prepared to follow in respect of traffic rights, at least within a short-term perspective. Keeping in mind both the long-term target and currently existing differences in approaches to traffic rights and permit system, the Model Bilateral Agreement on International Road Transport provides three options.

33. The **first option** of the Model is addressed toward countries which 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 of the Model also provides for permits being required for most types of transport operations.

34. The **second option** of the Model 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.

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

36. The wording of other provisions of the Model is uniform in all the three options, to provide the countries with a reference guide that could be followed during negotiations of new bilateral agreements.

37. The **Model Multilateral Permit for International Road Transport**⁷ is recommended at a time when insufficient transport facilitation measures are still a serious issue in the region. Implementing Multilateral Permit for International Road Transport will help to eliminate the existing inefficient trans-loading practices at borders, which currently increases transport and logistics costs. Transport operations would be accomplished directly which would contribute equally to an uninterrupted and clear line of contractual responsibility for the final delivery of the cargo in time and in an undamaged state. The driver of the originally contracted carrier remains in full control from the point of loading to the point of unloading at final destination. On this basis,

⁷ <http://www.unescap.org/resources/model-multilateral-permit-international-road-transport>

transport security increases and the relationship of trust between business partners is considerably improved.

38. Well-functioning multilateral permits will create a virtuous circle: solving the traffic rights problems translates into enhanced access to international road freight transport markets along the Asian Highway Network and beyond. Permits as transport facilitation measures may give impetus to vehicle fleet modernization, improved vehicle technical, environmental and safety standards, reduced exposure to border crossing bureaucracy and possible illegal activities (rent-seeking, bribes, etc.), and increased physical cargo security.

39. While facilitating road transport by exchanging permits, governments will continue to keep full control of issuing permits to domestic and foreign transport operators; they have the right to carry out regular checks of permit use and apply specific disciplinary action against non-complying operators.

40. The **Standard Model of Logistics Information Systems**⁸ provides a comprehensive list of relevant technical standards, proposes common technical standards for the establishment of logistics information systems that would enhance operational connectivity across the ESCAP region, and outlines practical guidance in the overall architecture of logistics information systems. It was developed as part of the “Regional Study: The use of Logistics Information Systems for increased efficiency and effectiveness” which aimed at promoting good practices on the use of logistics information systems and to support capacity building in member countries to increase the efficiency and effectiveness in the movement of goods. The study reviews the technical aspects of selected existing national and transnational logistics information systems and identifies good practices, proposes a Standard Model of Logistics Information Systems and provides recommendations on technical standards in the establishment and operation of such systems. The study is available at <http://www.unescap.org/resources/regional-study-use-logistics-information-systems-increased-efficiency-and-effectiveness>

41. The **Secure Cross-Border Transport Model**⁹ provides a conceptual and standard basis for design of a cross-border vehicle monitoring system using new technologies, including ICT, satellite positioning and electronic seals. The model prescribes standardized components, their interaction and institutional requirements for its application in the cross-border transport.

⁸ <http://www.unescap.org/resources/standard-model-logistics-information-system>

⁹ Available at <http://www.unescap.org/resources/secure-cross-border-transport-model>

42. It demonstrates how the use of these technologies can secure and facilitate the trade and transport, while taking care of the concerns of control authorities, giving the control authorities the confidence they need, to open up more international land routes for international trade and transport. It also allows transport operators to manage safe and efficient operation.

43. **The Efficient Cross-Border Transport Models**¹⁰ provide practical solutions to the difficulties in cross-border operations of land transport. With limited requirements of inter-governmental arrangements or absence of such arrangement, goods and passengers can be more efficiently moved across borders and for onward carriage based on the models.

44. With recent developments of trucking industry and technologies, the models use prime mover-trailer system and commercial cooperation to overcome institutional barriers and conflicts of commercial interests in international land transport. It can also largely reduce concerns on safety and security with entry of foreign vehicles in the region. It can also minimize the need for difficult cross-border arrangements, such as visa for driver, driving license, vehicle insurance, temporary importation of vehicles, standards of vehicles and transport permits. Similarly, the models also provide good practices for efficient inter-country railway operations.

45. **The Model on Integrated Control at Border Crossing**¹¹ provides more efficient information flow and sharing among various agencies at border crossings by application of modern technologies (including ICT as a centre) and streamlined process of documentation and procedures. It can help minimize interventions in the process of crossing borders by various border agencies while maintaining good controls.

46. The model promotes optimized use of modern equipment by different agencies and multiple usage of the results of inspections. It also helps streamline and simplify formalities and procedures for crossing border with re-aligned integrated scheme for a border crossing rather than different schemes for different agencies at the same border crossing.

47. **The Time/Cost-Distance Methodology**¹² is based on the graphical representation of data collected with respect to the cost and time associated with the transport process. The methodology enables easy comparison and evaluation of competing modes of transport operating on the same route and comparison of alternate transport routes. The methodology is based on the premise that the unit costs of transport may vary between modes, with the steepness of the cost/time curves reflecting the actual cost, price or time. At border crossings, ports and inland terminals, delays

10. Available at <http://www.unescap.org/resources/efficient-cross-border-transport-models>

11. Available at <http://www.unescap.org/resources/model-integrated-controls-border-crossings>

12. Available at <http://www.unescap.org/resources/timecost-distance-methodology>

occur and freight/document-handling charges and other fees are usually levied without any material progress or movement of the goods being made along the transport route. This is represented by a vertical step in the cost curve. The height of the step is proportional to the level of the charge or time delay.