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Emerging issues in transport:

Transport infrastructure

Transport infrastructure

Note by the secretariat

Summary

Asia's growing population and its position as a driver of the world's economic growth and trade continues to intensify the demand for efficient transport infrastructure and services. While considerable effort has already been made to address relevant issues, infrastructure networks are still under pressure to accommodate rising trade volumes. In particular, they are not yet capable of handling the increase in intra-Asian overland trade.

The Asian Highway and Trans-Asian Railway networks provide two important frameworks within which national transport policies can be coordinated to facilitate the realization of an international integrated intermodal transport and logistics system for the region. In this regard, the development of dry ports is essential for the integration of the two networks into an intermodal system that offers safe, efficient and reliable transport while also making effective use of existing infrastructure, distributing the benefits of economic growth more evenly, and reducing the environmental impact of the transport industry.

The document reviews recent progress in developing the Asian Highway and Trans-Asian Railway and discusses key issues in using the two networks as the building blocks for the realization of an international integrated intermodal transport and logistics network for the region through the development of a regional network of dry ports and international intermodal transport corridors.

The Ministerial Conference may wish to provide the secretariat with guidance on future activities for transport infrastructure development to be implemented during phase II of the Regional Action Programme for Transport Development in Asia and the Pacific.

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I. Introduction

1. The global economy was badly affected by the financial crisis that emerged in the second half of 2008 and continued with a contraction in world trade throughout 2009. However, by 2010 trade figures have shown that most economies of the ESCAP region recovered from the crisis earlier than expected and were in much better shape than those of other regions.

2. The region's continued economic dynamism is also highlighted by the Asian Development Bank, which predicts that Asia's share of the world's gross domestic product could grow from 27 per cent in 2010 to 51 per cent in 2050.¹

3. During the 2008-2009 crisis, it was in the developed countries that demand collapsed and therefore traditional trading partners of exporting economies in the region needed to be partially replaced by new markets of developing countries (within and outside the region) and by local demand.² As a result, while still recognizing that the European and North American markets will remain important in the near to medium term, many countries have started to consider a change of economic philosophy based on a greater exploitation of the region's internal market.

4. In fact, this has been an ongoing process over several decades, where the establishment of international and regional production networks and supply chains supported by free trade agreements has led to a

¹ Asian Development Bank, *Asia 2050 – Realizing the Asian Century*, May 2011.

² ESCAP, *Economic and Social Survey of Asia and the Pacific 2011: Sustaining Dynamism and Inclusive Development: Connectivity in the Region and Productive Capacity in Least Developed Countries* (United Nations publication, Sales No. E.11.II.F.2), p. 12.

significant increase in intraregional inter-industry trade. In 2010, bilateral trade between China and the Association of Southeast Asian Nations (ASEAN) totalled \$292.8 billion compared to \$39.5 billion in 2000. Over the same period, trade between India and China also jumped from \$2.91 billion to \$61.7 billion, while India-ASEAN trade grew from \$5.9 billion to \$50 billion.

5. Traditionally, however, the smooth flow of Asia's international trade has relied on the maritime and land transport networks of many countries, and has been oriented towards the coastal areas. As a result, intercountry transport linkages over land have not been well developed. Because of this underdeveloped land transport infrastructure, much of the economic development of the region has been concentrated in coastal areas, leaving deeper hinterland areas, including landlocked developing countries, behind in the region's economic and trade growth.

6. The Asian Highway and Trans-Asian Railway have played a pivotal role in assisting ESCAP member countries in improving inter-country and interregional transport links, in particular in addressing the specific transport challenges facing landlocked and transit developing countries in line with the Almaty Programme of Action.

7. While both networks need to be further expanded and upgraded, the region's continued economic growth and the rising share of intra-Asian trade in the region's overall trade volume are calling for countries to go beyond the mere development of transport infrastructure on a unimodal basis. Effective integration of the Asian Highway and Trans-Asian Railway, with connection to inland waterways, seaports, river ports, airports and dry ports, can offer seamless transport solutions for the region's vibrant industry to assemble agricultural and industrial inputs and distribute outputs to reach consumers.

8. The vision of an international integrated intermodal transport and logistics system articulated by the ministers in the Busan Declaration on Transport Development in Asia and the Pacific (E/ESCAP/63/13, chap. V), and reiterated in the Bangkok Declaration on Transport Development in Asia, which was adopted by the Forum of Asian Ministers of Transport, held in Bangkok from 14 to 18 December 2009 (E/ESCAP/66/11, chap. IV), provides a broad framework within which physical connectivity between member States can be enhanced and a single intermodal network that integrates road, rail, sea, air and river transport can be established. The need for such a network is becoming more and more evident. However, its realization will be complex, require substantial investment and necessitate a high-level of regional cooperation and coordination between countries and stakeholders.

9. The present document reviews the progress achieved in the implementation of the activities of the secretariat regarding the Asian Highway and Trans-Asian Railway. It also discusses key issues involved in using the two networks as the building blocks for the realization of the vision of an international integrated intermodal transport and logistics system through the development of a regional network of dry ports and international intermodal corridors.

II. Recent progress in the development of regional and interregional transport networks

A. The Asian Highway and Trans-Asian Railway networks

10. The Asian Highway and Trans-Asian Railway play a pivotal role in fostering the coordinated development of regional road and rail networks. This collaborative work of ESCAP culminated in the formalization of the two networks through the Intergovernmental Agreement on the Asian Highway Network³ and the Intergovernmental Agreement on the Trans-Asian Railway Network,⁴ which entered into force in July 2005 and June 2009, respectively. There are now 28 parties and one signatory yet to become a party to the Intergovernmental Agreement on the Asian Highway Network and 16 parties to the Intergovernmental Agreement on the Trans-Asian Railway Network.

11. In accordance with the terms of the Intergovernmental Agreements, the secretariat has established separate working groups for the Asian Highway and Trans-Asian Railway as important forums to facilitate the implementation of the agreement and to discuss issues and exchange information relating to the future development, upgrading and operational efficiency of transport in the region.

12. The Third Meeting of the Working Group on the Asian Highway, held in Bangkok on 4 September 2009, adopted amendments to annex I of the Intergovernmental Agreement that were proposed by China, India and Kazakhstan. These amendments include: (a) the Yarantai – Takeshkan road in China on the AH4, (b) the Jaigaon – Phulbari road in India on the AH48 and (c) the Martuk – Zhaisan road in Kazakhstan on the AH61.⁵

13. The Second Meeting of the Working Group on the Trans-Asian Railway Network, held in Busan, Republic of Korea, on 14 and 15 June 2011, adopted amendments to annex I of the Intergovernmental Agreement that were proposed by China, the Islamic Republic of Iran, Mongolia and Uzbekistan. The adopted amendments reflect: (a) new route alignments in China between Kunming and the border points with the Lao People's Democratic Republic and Myanmar; (b) completion of missing links in the Islamic Republic of Iran and Uzbekistan; (c) designation of new routes in Mongolia; (d) designation of new stations able to handle ISO containers of at least 20 feet in length in China and Mongolia; and (e) the change of name of a station in Uzbekistan.

14. The Asian Highway and Trans-Asian Railway are not static or time-bound, but are evolutionary by nature and consequently require frequent relevant policy guidance. For example, with the inclusion of the Jaigaon – Phulbari section in India, which links to Bhutan, a total 142,000 km of the Asian Highway network now connects to all landlocked developing countries of the region. Similarly, the adoption by the second meeting of the Working Group on the Trans-Asian Railway Network of the new Trans-

³ United Nations, *Treaty Series*, vol. 2323, No. 41607.

⁴ United Nations, *Treaty Series*, No. 46171.

⁵ ESCAP, *Report of the Third Meeting of the Working Group on the Asian Highway, 4 September 2009, Bangkok*, para. 5, available from http://www.unescap.org/ttdw/common/TIS/AH/files/wgm3_AHReport_e.pdf.

Asian Railway routes in Mongolia increases the total length of the Trans-Asian Railway Network from 114,000 km to 117,000 km.

15. The Intergovernmental Agreement on the Asian Highway Network is making it easier for countries to secure financial resources to upgrade relevant roads and highways through their territories. Similar benefits are expected for the Trans-Asian Railway Network. Development of the networks has also been incorporated into national plans or strategies in a number of countries (see annexes 1 and 2). In this regard, the secretariat will step up its collaboration with member countries, potential donors and international financial institutions to pipeline priority projects and help ensure that investment requirements are met.

16. The ADB, in close cooperation with the secretariat, is implementing a project designed to promote regional infrastructure development (TA-7557), with an overall budget of \$2.175 million for the period July 2010-December 2011. The main objectives of the project are to undertake pre-feasibility studies focusing on sections of the Asian Highway and Trans-Asian Railway, to prioritize investment and update project pipelines, to develop a framework facilitating linkages between trade and transport, and to establish a regional project development facility. Up to this point, ADB has financed around 21 per cent of the Asian Highway and 8 per cent of the Trans-Asian Railway routes in its developing member countries.⁶ The Asian Highway and Trans-Asian Railway networks were used as a reference in a background paper on “Regional Infrastructure for Asia’s Connectivity – Current Progress, Challenges, and Ways Ahead”, tabled at the 44th Annual Meeting of the ADB Board of Governors, held in Hanoi from 3 to 6 May 2011.

17. Notable progress has been made in the development and upgrading of both the Asian Highway and the Trans-Asian Railway networks. Various sections of the Asian Highway network in member countries have been improved in conformity with the Intergovernmental Agreement’s classification and design standards. For example, about 11,000 km have been upgraded to meet the minimum standards, thereby reducing the percentage of Asian Highway routes below the minimum standards of Class III from 16 per cent in 2004 to 8 per cent in 2008. Similarly, with respect to the Trans-Asian Railway network, substantial progress has been made in the planning and construction of missing links as well as double-tracking, gauge conversion and the introduction of modern signalling.

18. However, there are still 11,500 km of Asian Highway routes that need to be upgraded to meet the minimum standards, and 10,500 km of missing links (9 per cent of the network) that still needs to be constructed to complete the Trans-Asian Railway network. Interoperability across borders also remains a problem.

19. In order to better target future development policies at the regional level, the availability of adequate knowledge and information of road and rail infrastructure in member countries as well as the levels of traffic and transport services, including border crossings, is of paramount importance. The Asian Highway database, which has been in existence since 1998, and the newly launched Trans-Asian Railway database aim to gradually fill this

⁶ ADB, TA-7557: Promoting Regional Infrastructure Development, Second Interim Report, March 2011.

gap to become a source of reference for the secretariat, its member countries and other subregional organizations and financial institutions. In order to ensure the completeness and accuracy of the databases, there is a need for enhanced capacity and commitment from countries to provide regularly updated data.

B. Interregional transport network

20. With the objective of strengthening countries' capacities to develop a coherent interregional transport system, the five United Nations regional commissions undertook a United Nations Development Account project entitled "Capacity-building in developing interregional land and land-cum-sea transport linkages". The project was carried out from 2002 to 2007 with the project results, including the identification of interregional transport links, contributing to stronger integration and promoting economic development in the member States of the regional commissions.

21. As an important component of the project, ESCAP and the Economic Commission for Europe (ECE) secretariats have assisted landlocked and transit developing countries to develop the capacity to deal effectively with their transit transport requirements. This is done by working together on identifying Euro-Asian Transport Linkages (EATL) that provide the landlocked and transit developing States in Asia and Europe with connectivity.⁷ The identified network of the Euro-Asian Transport Linkages now consists of 48 inland ports, 16 inland waterway routes, 7 road and 9 rail routes, linking 18 participating countries, including 10 landlocked States. The project also resulted in: (a) the development of a geographic information system (GIS) database; (b) the prioritization of a number of infrastructure projects; (c) the analysis of non-physical obstacles; (d) the organization of national capacity-building workshops; and (e) a joint ECE-ESCAP study.

22. As a follow-up to the United Nations Development Account project, phase II of the EATL project was initiated. "Joint Statement on Future Development of Euro-Asian Transport Links" was signed by the Ministers of Transport on 19 February 2008 in Geneva. To facilitate the implementation of commitments originating from the joint statement, an EATL Expert Group was created. The Expert Group, consisting of government experts from 27 countries as well as experts from international organizations, has elaborated studies and research work concerning key Euro-Asian transport issues. These issues include: (a) an EATL SWOT (Strengths-Weaknesses-Opportunities-Threats) analysis; (b) an assessment of transport volumes and trends along the EATL routes; (c) a study on economic viability of inland transport options between Asia and Europe; and (d) an analysis of non-physical obstacles of international transport. The Expert Group has also been tasked to identify 11 road, rail and inland waterway routes and priority infrastructure investments through geographical extension and updates of phase I under the United Nations Development Account project, and to develop a GIS internet application to present collected transport data and project results, as well as to strengthen national capacities and to share experience and best practices. Preliminary

⁷ United Nations, "ECE-ESCAP Joint Study on Developing Euro-Asian Transport Linkages" (ECE/TRANS/184), 2008.

results of the EATL, phase II, include the identification of 375 priority infrastructure projects requiring an investment of more than US\$ 160 billion.

23. The ESCAP and ECE secretariats are also cooperating in the Project Working Group on Transport and Border Crossing (PWG-TBC), established under the United Nations Special Programme for the Economies of Central Asia (SPECA). This group has seven members, all of which are landlocked countries. It also works on a number of issues related to the implementation of the Almaty Programme of Action to promote international transport and transit through the development and operationalization of road and rail networks in the SPECA region, including (a) the development of SPECA transport databases, (b) the identification and isolation of bottlenecks, (c) the establishment or strengthening of national facilitation coordinating mechanisms and (d) the simplification/harmonization of border-crossing procedures and documentation for international transport. It also organizes bilateral consultations on border-crossing issues between SPECA member States in conjunction with its regular annual sessions.

24. Countries are building on their growing success in international rail operations to organize demonstration runs of block-trains and launch new services along the international routes linking East Asia and Central Asia and further to Europe. The main land bridge to Central Asia from China is operated by Chinese Railways, which runs seven container-block trains per week between the port of Lianyungang and Alashankou, near the border with Kazakhstan. Each train has a carrying capacity of up to 96 twenty-foot equivalent units (TEUs).⁸

25. Following the successful implementation of trial runs of container block-trains in each direction on the 6,500-km rail route between Islamabad and Istanbul via Tehran in 2009 and 2010, regular services are now being operated on that particular route, with possible future extension to Europe. In early 2011, a new Trans-Siberian service was started between the port of Vostochny, Russian Federation and a final destination in Poland. The first train carried cargo which originated in Busan, Republic of Korea, and was shipped to Vostochny. In May 2011, the demonstration run of a container block-train took place from the Belgian port of Antwerp to Chongqin in China. Plans are also being made in the Islamic Republic of Iran for the operation of a pilot train over the 3,700-km rail route between the port of Bandar Abbas in the Islamic Republic of Iran and Almaty in Kazakhstan.

26. Despite the improvement in infrastructure and services, issues related to cross-border facilitation and transit are still major constraints to the smooth flow of traffic. In this regard, a comprehensive approach aimed at dealing with transport facilitation issues is necessary. Such an approach is elaborated in document E/ESCAP/MCT.2/4.

⁸ See www.shippingonline.cn/news/newsContent.asp?id=1211; see also www.lygsea.com/gcxw7.html (in Chinese).

III. Development of intermodal transport networks and dry ports

A. Intermodal transport networks

27. For many decades, the solution to the issue of transport demand has been to build more roads, railway lines and ports that function within individual mode-based frameworks. However, this unimodal approach to moving goods causes many problems, including (a) lower levels of technical and economic efficiency than would otherwise have been the case, (b) congestion around ports and on the region's road and rail networks, (c) bottlenecks that impede the smooth flow of goods internally and internationally and (d) environmental pollution.

28. Today, national and global economic and trade development no longer depends solely on the ways in which the productive sectors operate but also on the ways in which their outputs are distributed rapidly and efficiently to international markets. This requires countries to rethink their transport policies and adopt an innovative and more holistic approach.

29. The Ministerial Conference on Transport, held in Busan, Republic of Korea, in November 2006, recognized the Asian Highway and Trans-Asian Railway networks as two important components of a long-term vision of an international, integrated, intermodal transport and logistics system, which the region needs in order to meet the growing challenges of globalization.⁹ This recognition received renewed support at the first session of the Forum of Asian Ministers of Transport, held in Bangkok in December 2009.¹⁰

30. Accordingly, a new vision of transport is emerging with focus on the integration of modes as a way of increasing efficiency and generating capacity reserves through the optimal use of existing infrastructure. This integrated approach to transport planning is receiving added attention because it offers the opportunity to minimize the environmental impact of the transport sector and the use of energy, a critical point, given the sector's heavy reliance on fossil fuel and its contribution to GHG emissions.

31. In an effort to promote the integrated approach and provide an empirical basis for effective transport policy planning, the secretariat, in collaboration with the Korea Maritime Institute, has developed the Integrated Transport Planning Model. The model can be applied to generating forecasts of intermodal container traffic and investment requirements for seaports, dry ports and inland container depots, thereby providing a regional context for national intermodal transport planning and regional policy development. A study on the maritime container traffic forecast, based on the application of this model and highlighting long-term demands for investment in the region, was published in 2007.¹¹ The

⁹ Busan Declaration on Transport Development in Asia and the Pacific (E/ESCAP/63/13, chap. V).

¹⁰ Bangkok Declaration on Transport Development in Asia (E/ESCAP/66/11, chap. IV).

¹¹ ESCAP and Korea Maritime Institute, *Regional Shipping and Port Development: Container Traffic Forecast 2007 Update* (ST/ESCAP/2484), 2007 (available from www.unescap.org/ttdw/Publications/TIS_pubs/pub_2484/pub_2484_fulltext.pdf).

secretariat is updating the intermodal container traffic forecast study in 2011.

32. Developing intermodal transport corridors seems to offer a framework within which intermodal integration can be addressed in an inclusive manner. These corridors optimize the planning of land acquisition/use among different entities and make it easier to adequately provide for future extension. They enhance mobility and create economies of scale for industry, which can access a wide range of services and a pool of trained manpower within a core strip of land. At the same time, communities along the corridor enjoy greater employment opportunities as well as higher standards of living. Finally, by facilitating integration of modes, intermodal transport corridors optimize the use of each transport mode and reduce the impact of transport on the environment, while generating economic vitality. However, the creation of these corridors requires more systematic and coordinated planning as well as associated policy and institutional changes.

33. In particular, successful integration of the Asian Highway and Trans-Asian Railway networks with sea ports and maritime transport networks will help the region create new opportunities to expand agricultural and manufacturing production in inland locations of both landlocked and transit countries that have yet to benefit from the globalization process.

34. Some noticeable examples of effective intermodal transport corridors linking sea ports and landlocked developing countries include the ports of Lianyungang, Shanghai, Tianjin and Qingdao in China, which have been acting as the main gateways for several landlocked countries in Central Asia and Mongolia. In 2010, 223,844 TEU passed through the Alashankou/Dostyk border point for traffic between China and Central Asian countries of which 67.5 per cent were Chinese exports. Meanwhile, 74,945 TEU were exchanged between Mongolia and China through the Erenhot/Zamyn Uud border point of which 51.6 per cent were Chinese exports. Other examples of corridors within which member countries may plan joint and coordinated development of international intermodal transport include: (a) the Bandar Abbas (Islamic Republic of Iran) – Almaty (Kazakhstan) corridor; (b) the Thanaleng (Lao People's Democratic Republic) – Port Klang (Malaysia) corridor; (c) the North-South Corridor linking the Baltic Sea to the Persian Gulf via Azerbaijan, the Islamic Republic of Iran and the Russian Federation; and (d) the Istanbul – Tbilisi – Baku – Tehran – Islamabad – Dhaka corridor.

35. To assist member countries in approaching corridor development and sharing experiences on the development of intermodal transport corridors, the secretariat implemented a project on operationalization of international intermodal transport corridors in North-East and Central Asia. Within the project, three expert group meetings were organized: in Tashkent on 4 and 5 March 2009, in Bishkek on 4 and 5 November 2009 and in Uiwang-city, Republic of Korea, on 15 and 16 July 2010. In these meetings, member countries shared their experiences as well as issues and challenges related to the development and operationalization of intermodal transport corridors. The meeting held in Uiwang-city adopted a joint statement of experts to enhance corridor-based cooperation among member countries.

36. Further efforts could be expended to identify intermodal corridors along the Asian Highway and Trans-Asian Railway networks offering high intermodal potential. The implementation of these efforts presents a particular challenge born from the fact that in most countries the responsibilities for the development and implementation of intermodal policies and projects are distributed over many ministries or agencies, each dealing with one specific aspect. A result of this distribution is that related transport policy and resource allocations remain modally oriented, with narrowly focused programmes and projects which lack a coherent whole.

37. Intermodal transport, therefore, requires a high degree of coordination and cooperation across all stakeholders, including government agencies and institutions, the private sector of shippers and modal carriers and the public and various interest groups.

B. A regional network of dry ports

38. In the realization of the regional vision of an international integrated intermodal transport and logistics system, particular attention must be paid to intermodal facilities such as dry ports and inland container depots. Together with the Asian Highway and Trans-Asian Railway networks, dry ports are an additional vital element of the vision. Dry ports, building linkages between modes in the form of the nodes where the modes of major highways, railway lines and rivers converge, allow goods — particularly those in standard containers — to be transferred efficiently between transport modes, and thus ensure optimal usage of the networks as a whole.

39. These dry ports will fulfill functions similar to seaports. Transport and related services, such as freight forwarding, logistics, customs, and sanitary and phytosanitary services, would be available at these facilities. Other value-added services would include storage, warehousing, packing, grading, distribution and related services. In addition, dry ports would support the development of intermodal corridors, create new opportunities for growth at inland locations including landlocked developing countries in the region and provide new opportunities for international trade. This would ensure wider spatial distribution of growth benefits, secure a more inclusive development approach, and support a modal shift to rail transport and inland waterways, thus reducing the environmental impact of transport.

40. The secretariat undertook a project entitled “Developing intermodal interfaces as focus for development along the routes of the Asian Highway and Trans-Asian Railway networks”. The project is a further step towards enhancing the delivery capabilities of the Asian Highway and Trans-Asian Railway networks through the development of dry ports, with the objective of spreading the benefits of efficient transport beyond the catchment area of the region’s most active ports, and helping to transform transport corridors into economic corridors. The major findings and recommendations are summarized in the recent study, entitled *Policy Framework for the Development of Intermodal Interfaces as Part of an Integrated Transport Network in Asia*.¹²

41. This study highlighted the importance of a centralized agency to define and steer related policies, including the provision of customs services

¹² ST/ESCAP/2556, available from http://www.unescap.org/ttdw/common/TIS/TAR/text/study_report_final.pdf.

and procedures relating to private sector involvement and land acquisition, as well as banking regulations. The study also noted a lack of knowledge regarding freight movements, storage, loading and unloading activities. This knowledge would help policymakers and businesses have a clear picture of the logistics situation at the national level as well as trends affecting the industry at the international level.

42. Recognizing the key role of dry ports in facilitating a coordinated approach to an international integrated intermodal transport and logistics system, the Forum of Asian Ministers of Transport, at its first session, held in Bangkok in December 2009, requested the secretariat to work towards developing an intergovernmental agreement on dry ports.¹³ Formalizing the development of dry ports through an intergovernmental agreement would: (a) promote international recognition of dry ports; (b) facilitate infrastructure investment by attracting strong commitment of member States and increased financing from international banks and bilateral donors; and (c) define operational services for a more harmonized approach to the development and operation of dry ports in the region through enhanced collaboration with the private sector.

43. Following the guidance received from the second session of the Committee on Transport, held in Bangkok, from 1 to 3 November 2010,¹⁴ the secretariat has developed a working draft of the agreement and begun holding a series of subregional and regional meetings to review the draft agreement with a view for adoption in 2012 and opening for signature in 2013. The first subregional meeting was held in Vientiane on 7 and 8 July 2011 for countries of South-East Asia.

44. The secretariat also organized a Regional Expert Group Meeting on Dry Ports along the Asian Highway and Trans-Asian Railway Networks in Bangkok, from 1 to 3 November 2010, to discuss the institutional, regulatory, technical and operational issues related to the development of dry ports.

45. In association with the Korea Maritime Institute, and with the financial support of the Government of the Republic of Korea, the ESCAP secretariat is implementing a project on capacity-building for dry port planning through pre-feasibility studies of selected dry ports in the South-East Asian subregion during 2011-2012.

46. A number of successful experiences have already taken place in many countries including some landlocked developing countries in the ESCAP region (see annex III). However, the capacities of existing dry ports are, in many cases, limited and new facilities are urgently required. Building such facilities, however, is no easy task due to the number and variety of stakeholders and to the difficulties in securing the necessary financing. Coordination among different government ministries/departments and the private sector is important to create an environment that is conducive to the development of dry ports.

¹³ Subsequently endorsed by the Commission in its resolution 66/4 of 19 May 2010 on the implementation of the Bangkok Declaration on Transport Development in Asia.

¹⁴ For details on the formulation of an intergovernmental agreement on dry ports and the proposed structure of such an agreement, see E/ESCAP/CTR(2)/3.

IV. Issues for consideration

47. While the intergovernmental agreements on the Asian Highway and Trans-Asian Railway networks provide the foundation for regional connectivity, the quality and capacity of this infrastructure across the region is uneven and some links are still missing. In most countries, intermodal transport is limited due to lack of capacity in dry ports.

48. The Ministerial Conference may wish to provide further guidance on the following elements proposed for inclusion in the Regional Action Programme for Transport Development in Asia and the Pacific, phase II (2012-2016).

Immediate objective: to promote regional and interregional connectivity and cooperation through the further development and upgrading of the Asian Highway and Trans-Asian Railway networks as well as Euro-Asian transport linkages and dry ports.

Outputs:

1. Meetings of the working groups on the Asian Highway and Trans-Asian Railway;
2. Intergovernmental agreement on dry ports;
3. Studies, meetings and capacity building on integrated transport development, upgrading and maintenance (asset management) of the Asian Highway, Trans-Asian Railway, dry ports of international importance and sea ports;
4. Studies on international intermodal transport corridors serving inter- and intraregional trade;
5. Updated information and data measuring progress in the development of regionally important transport infrastructure and operations;
6. Activities within the joint UNESCAP-UNECE project on the development of Euro-Asian transport links.

Indicators of achievement:

1. Adopted amendments to the Intergovernmental Agreements on the Asian Highway Network and Intergovernmental Agreement on the Trans-Asian Railway Network.
2. Member States negotiate and sign an intergovernmental agreement on dry ports.
3. Measures taken by member States to upgrade and expand the Asian Highway and Trans-Asian Railway networks and internationally recognized dry ports in their countries.
4. Measures taken by member States to incorporate study recommendations for regional and interregional intermodal transport corridors.

Annex I

Selected projects along the Asian Highway

- Following the decision of the third meeting of the Working Group on the Asian Highway (Bangkok, 4 September 2009) to include a link between India and Bhutan, the Asian Highway network now connects to all landlocked countries of the region. The upgrading of route AH48 (Thimphu-Phuentsholing Highway) in Bhutan to Class III standards is ongoing.
- India is upgrading various sections of the Asian Highway routes to four lanes (Class I standard) under various phases of the National Highway Development Programme and the Special Accelerated Road Development Programme in the north-east region of the country.
- Bangladesh is upgrading the Dhaka-Chittagong highway to a four-lane road and plans to upgrade most of the other Asian Highway routes in the country to four lanes. The construction of the 6.1 km long Padma Bridge on AH1 is expected to start in 2012.
- A dry port at Kakarbhitta (AH2) near the border in eastern Nepal has been completed. The Government of Nepal also has plans to construct the Birgunj – Kathmandu fast-track road, which will shorten the length of AH42 by 105 km, as well as the new Koshi Bridge near Chatara on AH2.
- The feasibility study of North-South Transport Corridor development in Armenia is ongoing, with a plan to upgrade 550 km of road (Meghri – Kapan – Yerevan – Gyumri – Bavra (AH81 and AH82) as well as a connection to Georgia and the Batumi port on the Black Sea at an estimated cost of \$1.38 billion.
- China is implementing the National Expressway Network Plan, which consists of 85,000 km and covers most of the Asian Highway routes in the country. More than 90 per cent of the Asian Highway routes in China are of Class II standards and above.
- Georgia has recently completed the construction of a 670-m tunnel on the Poti – Batumi – Sarpi road along AH5 and plans to rehabilitate 300 km of AH5 connecting the capital, Tbilisi, with Armenia and Turkey.
- Various sections of the Asian Highway routes in Turkey are being upgraded to four lanes, including the sections of Gerede – Merzifon (AH5), Samsun – Kavak – Merzifon (AH5), Kirikkale – Delice – Yerkoy (AH1) and Sivrihisar – Afyon – Izmir (AH87); these improvements are expected to be completed by 2013.
- The Asian Highway road signs have been installed in Cambodia, Japan, the Republic of Korea and Thailand.
- Indonesia is expanding its high speed toll roads along the Asia Highway in Java.
- The Islamic Republic of Iran is undertaking improvement of AH1: Tehran-Mashad-Dogharun and Trabiz Bazargam, upgrading of AH8: Gazvin-Rasht, and Khoramabad-Pole-Zale, AH72: Esfahan-Shiraz-Busher: and AH75: Mashhad-Birjand, to primary and Class I standards.

- As part of national construction, Mongolia has made tangible progress in the construction of AH-3, AH-4 and AH-32, and the upgrading of AH-3 to Class I standards.
- The Lao People's Democratic Republic is upgrading various sections of the Asian Highway below Class III to meet the AH standards.

Annex II

Selected projects along the Trans-Asian Railway network

- In March 2009, a line section was inaugurated from Nong Khai in Thailand to Thanaleng in the Lao People's Democratic Republic, 19 km south of Vientiane city centre, bringing with it the prospect of future rail service between the landlocked Lao People's Democratic Republic and ports in Malaysia and Thailand.
- In Cambodia, work is in progress to reconnect the country's rail network to Thailand and Viet Nam as part of the Singapore-Kunming Rail Link project driven by the secretariat of the Association of Southeast Asian Nations.
- In Malaysia, projects are being implemented to double-track and electrify the line sections between Seremban and Gemas, scheduled for completion end of 2012; and Ipoh and Padang Besar, scheduled for completion end of 2014.
- In the Islamic Republic of Iran, the Kerman – Zahedan line section was completed earlier in 2009, establishing continuous rail infrastructure along a corridor through Iran, Pakistan, India and Bangladesh. The country is now pursuing the construction of a cross-border rail link to Afghanistan and, under a tripartite agreement with Azerbaijan and the Russian Federation, work is in progress on the Qazvin – Rasht – Astara section along the western coast of the Caspian Sea. Once completed, there will be continuous rail infrastructure from Germany to Bangladesh via Poland, Belarus, the Russian Federation, Azerbaijan, Islamic Republic of Iran, Pakistan and India.
- In Turkey, work is continuing on the 98-km line section between Kars and Akhalkalaki, Georgia. The work is part of a wider project to develop the Kars – Tbilisi – Baku rail corridor under a Memorandum of Understanding signed by the Governments of Azerbaijan, Georgia and Turkey. When completed, Azerbaijan and Georgia will have direct rail access to the Turkish ports of Iskenderun and Mersin on the Mediterranean Sea.
- In India, the construction of the rail connection with Myanmar is considered a priority project. Feasibility studies have recently been completed for future rail connections to Bhutan and Nepal, which are both landlocked.
- In Bangladesh, work is progressing on restoring connections with India, notably through conversion of the Parbatipur – Birol line section to dual gauge and rehabilitation of the Kulaura – Shahbazzpur section. Moreover, Bangladesh is constructing the missing link Dohazari – Cox's Bazaar – Gundum, near the border with Myanmar, and double-tracking the Dhaka-Chittagong corridor.
- In China, the development of additional rail connections to Central Asia is being pursued. Projects to establish connections with the Lao People's Democratic Republic and Myanmar and improve the existing lines to Viet Nam are at various stages of planning or implementation.
- In Viet Nam, the development of the Lao Cai – Hanoi – Haiphong corridor is a priority project to develop cross-border rail

movement between ports in northern Viet Nam and Yunnan province in China.

- In the Republic of Korea, the extension of the high-speed network is designed to expand capacity on Trans-Asian Railway routes.
- In the Russian Federation, investment is being made in the Transib-7 project, which is aimed at reaching a seven-day transit time along the Trans-Siberian main line between ports in the Far East region of Russian Federation and Moscow in order to speed up Asia-Europe rail transit.

Annex III

Progress achieved in dry port development in selected countries^a

- In the Republic of Korea, the Uiwang inland container depot near Seoul was developed in 1992 and currently handles over 1 million TEU per year. It has contributed to the substantial reduction of congestion at the port of Busan, provided employment to over 1,000 people and, in 2007, generated over \$1.1 million in tax revenues for local government.

- In India, the Container Corporation of India Ltd. (CONCOR) has put in place an extensive network of 59 inland container depots, of which 50 are export-import depots. The CONCOR customs-bonded inland container depots are dry ports in the hinterland, and serve to bring all port facilities to the customer's doorstep, including customs clearance. The terminals are almost always linked by rail to the Indian Railway network, unless their size or location dictates that they be linked by road. CONCOR terminals provide a spectrum of facilities in terms of warehousing, container parking, repair facilities and even office complexes. The corporation adds value to the logistics chain by offering the provision of a single-window facility coordinating with all the different agencies and services involved in the containerized cargo trade, including customs, gateway ports, railways, road hauliers, consolidators, freight forwarders and shipping lines. The efficiency of interfaces between agencies and modes has seen container traffic jump from 1,044,728 TEU to 2,863,205 TEU in the period 2000/01 to 2010/11. In addition, 16 private operators have applied for licenses to operate intermodal traffic by rail and 8 privately-owned inland container depots are already in operation.

- In China, the growth of intermodal transport by rail is supported by the gradual development of 18 logistics hubs with involvement of national and foreign investors. Half of these hubs are already in operation at Kunming, Shanghai, Chongqing, Zhengzhou, Qingdao, Dalian, Chengdu, Wuhan and Xi'an with seven of them located along routes of the Trans-Asian Railway.

- In Kazakhstan, one of the largest investment projects along the Asian Highway network involves the building of an international border cooperation centre in Khorgos, which is located near the border with China.

- Mongolia plans to develop four dry ports along Trans-Asian Railway, located in Altanbulag Free Trade Zone, Ulaanbaatar, Sainshand Industrial Park and Zamyn-Uud Free Economic Zone. Dry ports in Zamyn-Uud would be developed with a loan from ADB, while the other three dry ports would be developed through PPPs.

- In Nepal, main dry ports include Birgunj, Biratnagar, Bhairahawa and Kakarbhitta. Policies relevant to transport and trade facilitation, transit and logistics and investment for the development of dry ports have been put in place. Acts and regulations related to multimodal transport, land and environment also play important roles in the establishment and operation of dry ports in Nepal.

^a Discussions of dry ports in Kazakhstan, Mongolia, Nepal and Uzbekistan are based on the country presentations at the Regional Expert Group Meeting on Dry Ports along the Asian Highway and Trans-Asian Railway Networks (Bangkok, 1-3 November 2010), available from http://www.unescap.org/tdw/common/Meetings/TIS/EGM-DryPorts-Bangkok/Report_EGM_DryPort.pdf.

- In Uzbekistan, the International Logistics Centre in Navoi has been designed to support multimodal services of air, rail and road transport. Angren Logistics Center is located on the bases of Ablyk station and it provides a full range of freight forwarding, cargo handling services, container transportation, storage, customs clearance and certification of goods. Chukursay Terminal specializes in processing 40- and 20-ft containers.
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