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Item 3 of the provisional agenda*
**Policies and issues related to the operationalization of the Asian Highway Network**

## Policies and issues related to the operationalization of the Asian Highway Network

### Note by the secretariat

*Summary*

In the present document, the secretariat discusses policies and issues related to the operationalization of the Asian Highway Network in the context of general trends in road transport development in Asia and the Pacific. In addition to infrastructure development, the secretariat highlights selected established road transport facilitation issues, as well as other priority issues, such as improving road safety.

Based on the information contained in the present document and relevant discussions, the Working Group on the Asian Highway may wish to provide guidance to the secretariat on the continued operationalization of the Asian Highway Network. In this connection, it may wish to recommend specific actions for the members of the Network and other member States, including to undertake sustained development and upgrading of the road network infrastructure and engage in greater information-sharing on the quality of the Asian highways; to ease the requirements for cross-border road transport permits, including through bilateral and multilateral road transport agreements; to strengthen regional and subregional cooperation on transit operations in order to support seamless connectivity, benefiting both landlocked developing countries and transit countries; to address the issue of motor vehicle insurance; and to leverage global and regional initiatives to enhance road safety along the Network.

The Working Group may also wish to share other insights on priorities and challenges in improving regional land transport connectivity and logistics, as well as interregional transport connectivity, in the context of the preparations for the next phase of the Regional Action Programme for Sustainable Transport Development in Asia and the Pacific, to be considered at the Fifth Ministerial Conference on Transport, in 2026. In this connection, the Working Group may wish to recommend updating the Regional Strategic Framework for the Facilitation of International Road Transport, adopted by the participants at the Second Ministerial Conference on Transport in 2012, to reflect new and emerging issues and best practices in road transport facilitation along the Asian Highway Network and beyond.

* ESCAP/AHWG(11)/1.

# I. Introduction

1. Road connectivity in Asia and the Pacific remains essential for promoting sustainable development across economic, environmental and social spheres. From an economic perspective, improved road networks help to lower transport costs and transit times; to enhance market access and encourage regional integration, which drives economic growth; to attract foreign investment; and to boost competitiveness. In terms of the environment, thoughtfully designed road infrastructure can reduce environmental impact by adopting sustainable practices, easing congestion and related emissions and providing access to cleaner energy options. At the societal level, better connectivity improves access to vital services like healthcare and education, especially in remote and neglected areas. It fosters social inclusion, alleviates poverty by linking communities to job opportunities and encourages cultural exchange, thereby strengthening regional cooperation and mutual understanding. Hence, developing and maintaining efficient and sustainable road networks is crucial for attaining balanced and inclusive growth in the Asia-Pacific region.

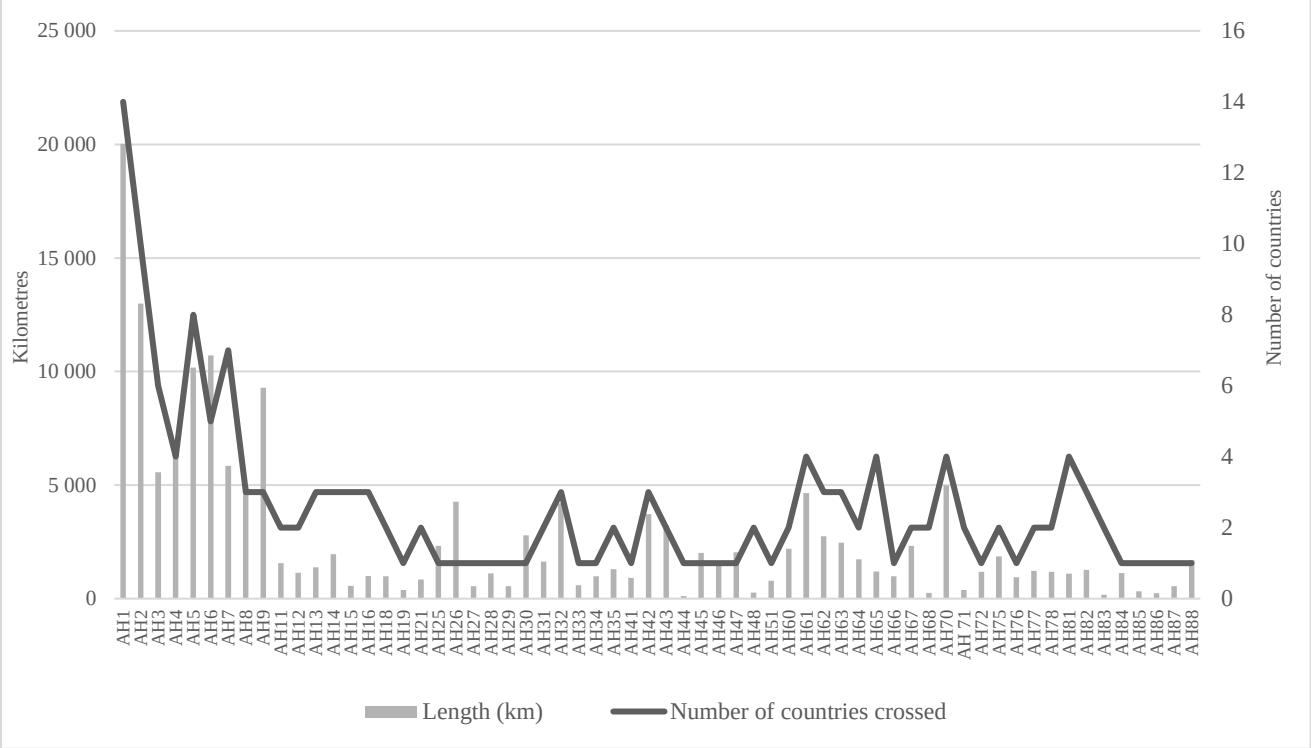
2. The Intergovernmental Agreement on the Asian Highway Network was adopted on 18 November 2003 and came into force on 4 July 2005. As at 20 March 2025, 30 States members of the Economic and Social Commission for Asia and the Pacific (ESCAP) were parties to the Agreement. Over the years, there have been several amendments to the Agreement, which have included new routes and improved design and operational standards for road safety. Existing Asian highways were updated 24 times during the period from 2013 to 2023, and eight new Asian highways were added.

3. Currently, the Asian Highway Network includes approximately 145,000 km of Asian highways, connecting all the capitals of the 32 member countries of the Network and reaching 99.7 per cent of the total population of the Asia-Pacific region.[1] There are 29 Asian Highway Network routes that pass through South and South-West Asia, 25 that pass through North and Central Asia, 24 that pass through East and North-East Asia and 17 that pass through South-East Asia.

4. The majority of the Asian highways are shorter than 5,000 km, but 10 of them are longer than 10,000 km. AH1, with a length of 20,000 km, is the longest Asian Highway Network route, linking North-East Asia to the European route E80 and crossing 14 Asian countries (see figure I).

[1] Member countries are the countries whose highways are included in the text of the Agreement. They are the following: Afghanistan, Armenia, Azerbaijan, Bangladesh, Bhutan, Cambodia, China, Democratic People's Republic of Korea, Georgia, India, Indonesia, Iran (Islamic Republic of), Japan, Kazakhstan, Kyrgyzstan, Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Republic of Korea, Russian Federation, Singapore, Sri Lanka, Tajikistan, Thailand, Türkiye, Turkmenistan, Uzbekistan and Viet Nam.

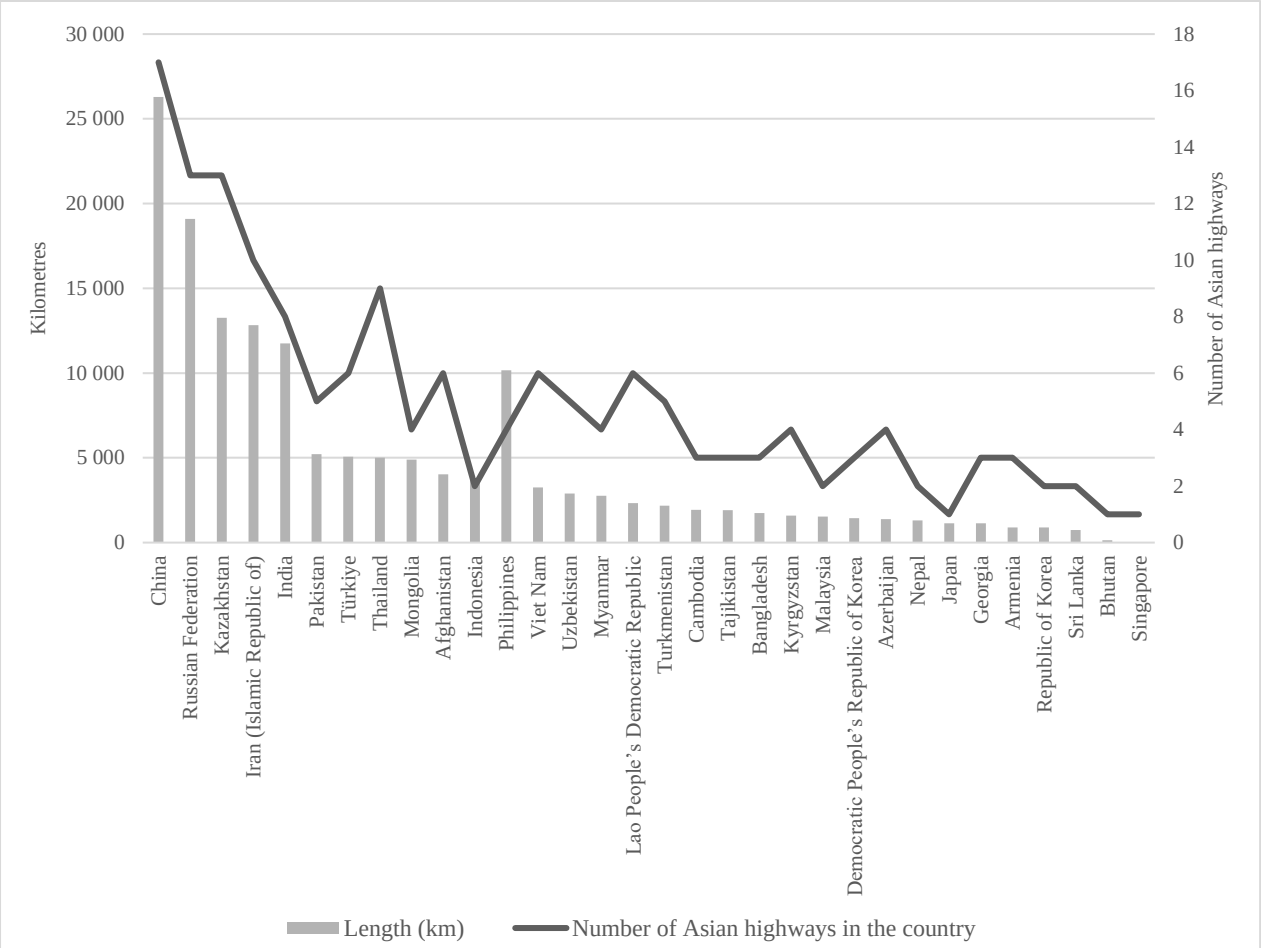
Figure I
**Composition of Asian Highway Network routes, by length and number of countries crossed**




*Source*: ESCAP calculations based on the status of the Intergovernmental Agreement on the Asian Highway Network as at 20 March 2025.

5. As at 20 March 2025, the countries with the longest segments of the Network were, in descending order, China, the Russian Federation and Kazakhstan. These three countries also had the highest number of Asian highways, while Bhutan and Singapore had the lowest number (see figure II).

Figure II
**Composition of the Asian Highway Network, by country**




*Source*: ESCAP calculations based on the status of the Intergovernmental Agreement on the Asian Highway Network as at 20 March 2025.

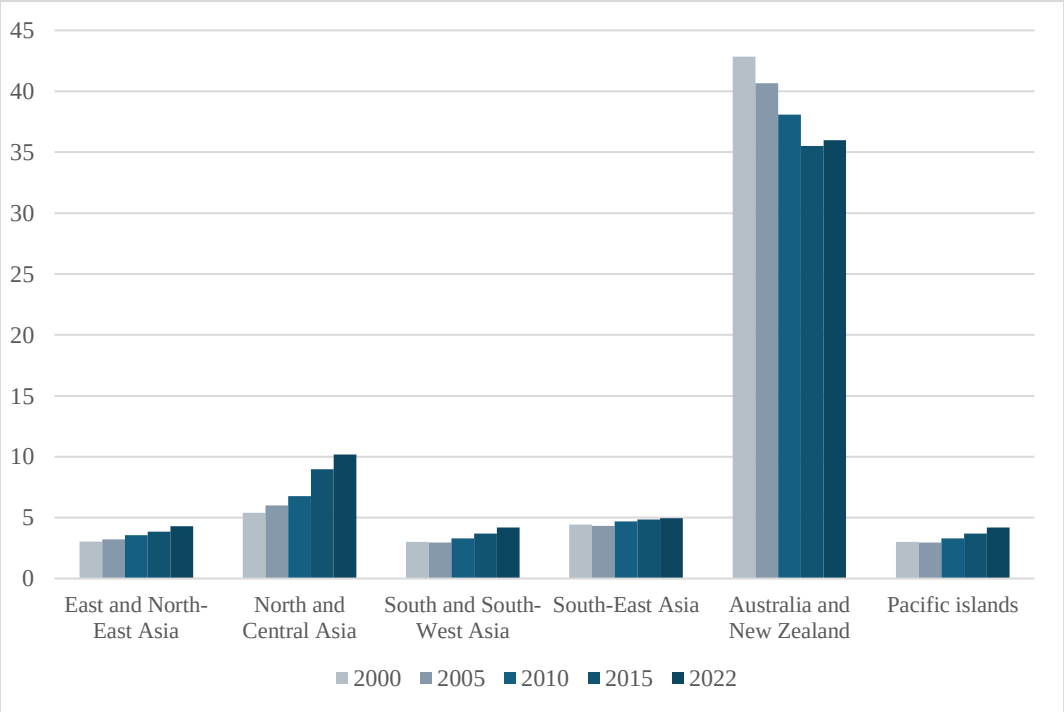
6. The Asian Highway Network represents only about 0.8 per cent of the total road network in Asia and the Pacific. Nevertheless, it is a significant milestone in regional cooperation for transport connectivity. As the world's most extensive integrated international road transport system in terms of its length and geographical reach, it exemplifies the benefits that regional cooperation can have for development within the Asia-Pacific region. The Network is more than just a series of roads. It serves as a framework for improved connectivity, promoting trade, tourism and interpersonal exchanges across the region's diverse landscapes. By the same token, the development of the Network is taking place in the broader context of the overall development of road transport in the region.

# II. Major trends in road transport development in Asia and the Pacific[2]

## A. Bridging the quantitative and qualitative road infrastructure gap

7. Road infrastructure in Asia and the Pacific has struggled to keep pace with economic growth. Since 2000, the annual expansion of the road network has averaged just 2.4 per cent, which is markedly lower than the region's gross domestic product (GDP) growth (10 per cent). As of 2021, Asia and the Pacific had around 5 km of roads for every 1,000 people (see figure III), which is below the global average of 7 km and well behind the average in Europe and North America of 21 km. Despite adding roughly 10 million km of roads in the past two decades, the pace of road construction in the Asia-Pacific region has decelerated since the adoption of the Sustainable Development Goals.[3] At the same time, the increase in the number of vehicles in the region, which has grown by about 7.3 per cent per year, is outpacing road construction. Since 2000, countries in the region have collectively added about one billion vehicles to the roads. By 2022, there were nearly 300 registered vehicles per 1,000 people in Asia.

Figure III
**Road availability in kilometres per 1,000 people**




*Source*: Calculations provided by the Asian Transport Observatory. For more information, see https://asiantransportobservatory.org/analytical-outputs/sdg-and-decade-of-action-2025.

[2] The overview of general trends in road transport in Asia and the Pacific was prepared in close collaboration with the Asian Transport Observatory – an initiative of the Asian Development Bank and the Asian Infrastructure Investment Bank – based on verified and peer-reviewed data and policies from multiple sources.

[3] Based on data provided by the Asian Transport Observatory. For more information, see https://asiantransportobservatory.org/analytical-outputs/sdg-and-decade-of-action-2025.

8. Road quality in the Asia-Pacific region has improved over the past few years. The improvement is evident in the changing structure of road networks. In 2000, 79 per cent of the total road length consisted of tertiary roads, while 11 per cent and 10 per cent were primary and secondary roads, respectively. By 2023, that had changed, with tertiary roads accounting for 76 per cent of roads, while primary and secondary roads each accounted for 12 per cent of roads.[4] Although the shift was marginal, the role of high-quality primary and secondary roads is crucial, as they contribute significantly to long-distance travel and to linking major economic centres.

9. The extent of paved road infrastructure also contributes to the quality of the road transport system. In Asia and the Pacific, the number of countries with a high percentage of paved roads has more than doubled. In 2000, only 16 per cent of the countries had a paved road ratio of at least 80 per cent. By 2023, that number had risen significantly, to 38 per cent, reflecting considerable investment in road surface upgrades.[5]

## B. Improving road transport logistics performance against persisting connectivity gaps, especially for landlocked developing countries

10. Enhanced road infrastructure is crucial to strengthening trade and supporting resilient supply chains across various sectors. The benefits of improved road quality are further evident in logistics and supply chain management advancements. According to the World Bank, 80 per cent of Asian countries have improved their Logistics Performance Index rankings since 2016,[6] which suggests that the region is more effective in moving goods and services, as it is benefiting from upgraded transport infrastructure. In addition, more than half (54 per cent) of the countries are ranked in the top half of the Sustainable Freight Transport Index of the United Nations Conference on Trade and Development with regard to the economic pillar.[7] These improvements emphasize the region's growing focus on market access and enhanced trade competitiveness, all of which is supported by ongoing road quality and connectivity advancements.

11. At the same time, trade costs and delays in international transport operations continue to be a major concern for Asia-Pacific countries, and especially for the landlocked developing countries, which are heavily dependent on road transport for freight and passenger operations.

12. Despite the notable progress made in infrastructure quality, cross-border operational connectivity between landlocked developing countries and transit countries remains complex in the region. For example, it has been reported that transit time for shipments between Kyrgyzstan and ports in Pakistan averaged 15 to 30 days[8] while transit time for shipments between

[4] Ibid.

[5] Asian Transport Observatory, ATO National Database. Available at https://asiantransportoutlook.com/snd/ (accessed on 22 November 2024).

[6] World Bank, "Logistics Performance Index". Available at https://lpi.worldbank.org/ (accessed on 6 March 2025).

[7] For information on the Sustainable Freight Transport Index, see https://sft-framework.unctad.org/interactive-charts.

[8] FW Freight, "Freight shipping from Pakistan to Kyrgyzstan: received quick quotes and instant shipping rates". Available at www.fwfreight.com/freight-shipping/from-pakistan-to-kyrgyzstan/ (accessed on 25 March 2025).

China and Kyrgyzstan averaged 10 to 20 days.[9] Transit time could be longer due to congestion in seaports or along the logistics line, as well as if it is held up by customs or other clearance authorities at border crossing points. Against this background, the General Assembly adopted its resolution 79/233 of 24 December 2024, which contains the Programme of Action for Landlocked Developing Countries for the Decade 2024–2034. Priority area 3 of the Programme of Action is "Transit, transport, and connectivity", the focus of which is improving infrastructure networks and enhancing operational connectivity.

13. An efficient, reliable and secure transit system is key for reducing transport costs, especially for landlocked developing countries, as it would enhance their competitiveness and enable them to enjoy greater access to regional and global markets. However, despite the efforts made by transit countries and landlocked developing countries in recent decades, realizing such a system continues to pose challenges, due, in large part, to implementation issues.[10] For most landlocked developing countries, inadequate information systems and weak guarantee management are key challenges in implementing transit regimes. Transit requires the exchange of information during its initiation and termination, including with the guarantor. The lack of proper information exchange implies that operations initiated in the transit country are not closed when the cargo exits the country, causing errors and delays in discharging transit guarantees. As the cost of the guarantee is proportional to the time between its initiation and its discharge, inefficient information exchange and consequent delays in discharging entail substantive costs.

14. Transit facilitation is also constrained due to a lack of thresholds for transit operators (truckers and freight forwarders, as well as customs brokers) authorized to undertake transit operations. A lack of entry barriers for transit operators has an impact on the quality of and compliance with transit procedures and encourages rent-seeking behaviour.

15. Inordinate delays in initiating transit at ports, which generally result from a lack of differentiated procedures for domestic clearances and for transit, present another challenge. For practical purposes, transit cargo should not be subjected to the same risk management and control that is applicable for domestic clearances. Some countries initiate transit based on the information available in the manifest, which is a good practice that can reduce transit initiation delays.

## C. Road safety challenges in Asian Highway Network member countries

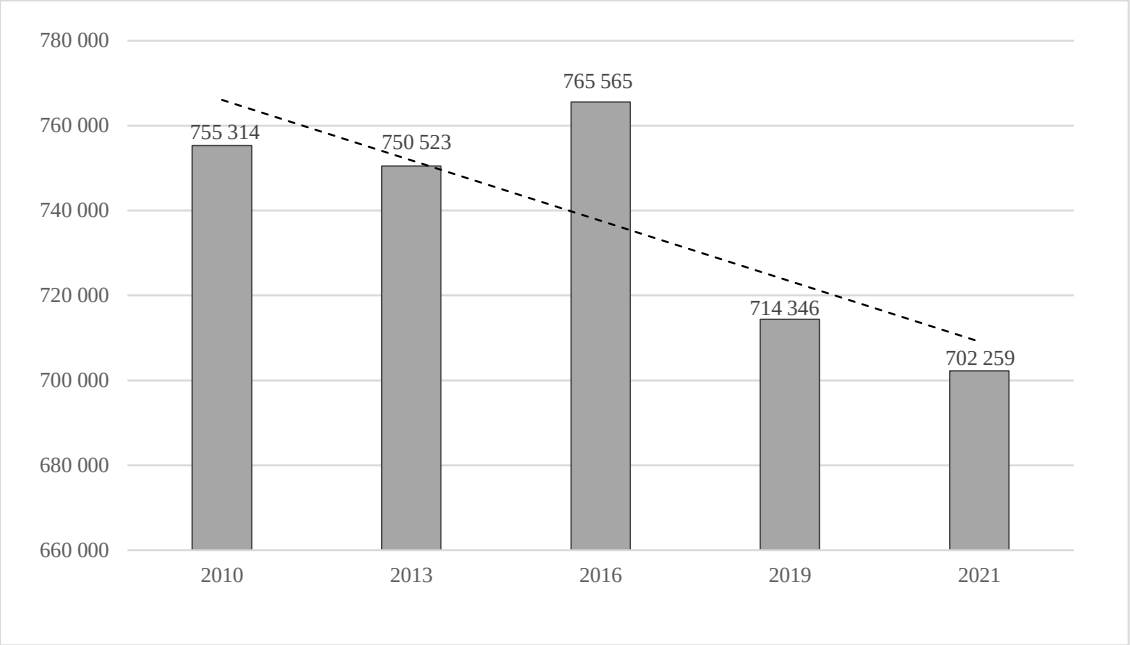
16. Road safety remains a critical challenge in the Asia-Pacific region, which bears a disproportionate share of the global burden regarding road safety. There was an estimated 7 per cent decrease in road traffic fatalities in the region from 2010 to 2021 (see figure IV). However, it still accounted for about 59 per cent of the global total in 2021, underscoring that progress has been modest relative to the scale of the problem. A similar downward trend in

[9] Cargo from China, "Shipping from China to Kyrgyzstan: customs, cost, transit time and more". Available at https://cargofromchina.com/china-kyrgyzstan/ (accessed on 25 March 2025).

[10] Based on Jean-François Arvis and others, *Connecting Landlocked Developing Countries to Markets – Trade Corridors in the 21st Century* (Washington, D.C., World Bank, 2011).

total road fatalities has been measured among countries in the region over the past decade, indicating some improvement. However, the overall road traffic fatality rate in the region remains slightly above the global average, emphasizing the need for sustained and coordinated action to protect lives on the road.[11]

Figure IV
**Estimated number of road traffic deaths in the Asia-Pacific region in the period from 2010 to 2021**




*Source*: ESCAP calculations based on data from various editions of the *Global Status Report on Road Safety.*

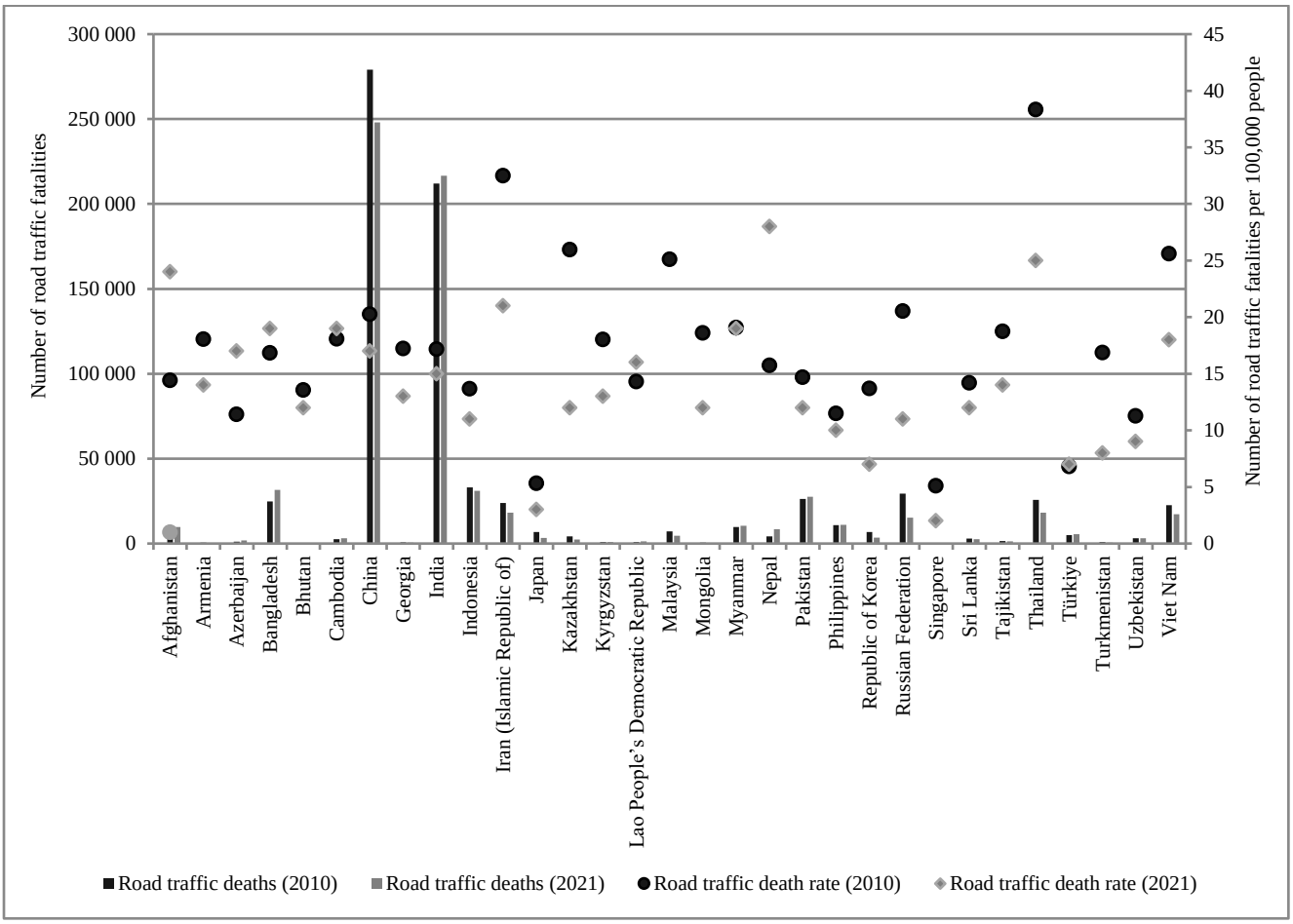
17. A closer look at road safety data reveals pronounced disparities among countries. The majority of countries in the Asia-Pacific region are low- and middle-income countries. In 2021, those countries constituted roughly 55.88 per cent of the region's population and experienced about 55.06 per cent of its road traffic deaths. This alignment highlights how developing economies shoulder a heavy share of road trauma. Road crashes also carry a steep economic cost, equivalent to 3 per cent of annual GDP in many countries.[12] These losses not only reflect human tragedy but also undermine development gains, diverting resources from growth and poverty reduction efforts. Policymakers in Asian Highway Network member countries are therefore increasingly viewing road safety as both a public health priority and an economic necessity.

18. A closer look at individual country data shows a more varied picture. Figure V shows the number of road traffic fatalities and the rate per 100,000 inhabitants in Asian Highway Network member countries, along with changes in these estimates between 2010 and 2021.

[11] World Health Organization (WHO), *Global Status Report on Road Safety 2023* (Geneva, 2023).

[12] WHO, "Road traffic injuries", 13 December 2023. Available at www.who.int/news-room/fact-sheets/detail/road-traffic-injuries.

Figure V
**Road traffic fatalities in Asian Highway Network member countries in 2010 and 2021**




*Source*: ESCAP calculations based on road fatalities data for 2010 and 2021. Available from WHO, *Global Status Report on Road Safety 2013* (data for 2010) and *Global Status Report on Road Safety 2023* (data for 2021).

## D. Navigating the energy transition and concerns about emissions and resiliency

19. Since 2000, the global transport sector has seen a notable decrease in energy intensity, with an average annual reduction of around 3.8 per cent.[13] Meanwhile, the share of renewable energy used in the sector has increased from 3.5 per cent in 2015 to 4.4 per cent in 2021.[14] This trend is mirrored in the Asia-Pacific transport sector, where transport energy intensity has substantially improved. Notably, economies in the Asia-Pacific region typically demonstrate lower transport energy intensity than in other regions. Nonetheless, fossil fuels continue to dominate, in particular in road transport. Fossil fuels account for 87 per cent of energy consumption in the road sector. According to the available information on selected countries in the Asia-Pacific region, the average share of electricity in road energy usage is 0.7 per cent, with China leading at 2.2 per cent. Biofuel consumption in the

[13] Based on data provided by the Asian Transport Observatory. For more information, see https://asiantransportobservatory.org/analytical-outputs/sdg-and-decade-of-action-2025.

[14] International Energy Agency and others, *Tracking SDG 7: The Energy Progress Report 2024* (Washington, D.C., World Bank, 2024).

road sector in the region is about 3.4 per cent, with significant shares seen in South-East Asia countries (10 per cent of total consumption on the road).[15]

20. In 2023, the transport sector was responsible for around 19 per cent of global carbon dioxide emissions from fossil fuels, while in the Asia-Pacific region, the share was notably lower at 12 per cent. Since the adoption of the Sustainable Development Goals in 2015, emissions from the region's transport sector have risen by roughly 2 per cent each year. This trend is in stark contrast to the situation in Europe and North America, where emissions have remained unchanged, and in Latin America and the Caribbean, where emissions have gradually risen at a rate of 0.2 per cent per year.

21. In 2023, road transport accounted for 84 per cent of all transport-related greenhouse gas emissions (excluding all international transport), with the Asia-Pacific region accounting for 38 per cent of the total. Since 2000, greenhouse gas emissions from road transport in the Asia-Pacific region have increased by 3.5 per cent annually, the highest growth rate among all transport subsectors. This highlights the urgent need for the full decarbonization of the road sector to achieve ambitious emission reduction targets.[16]

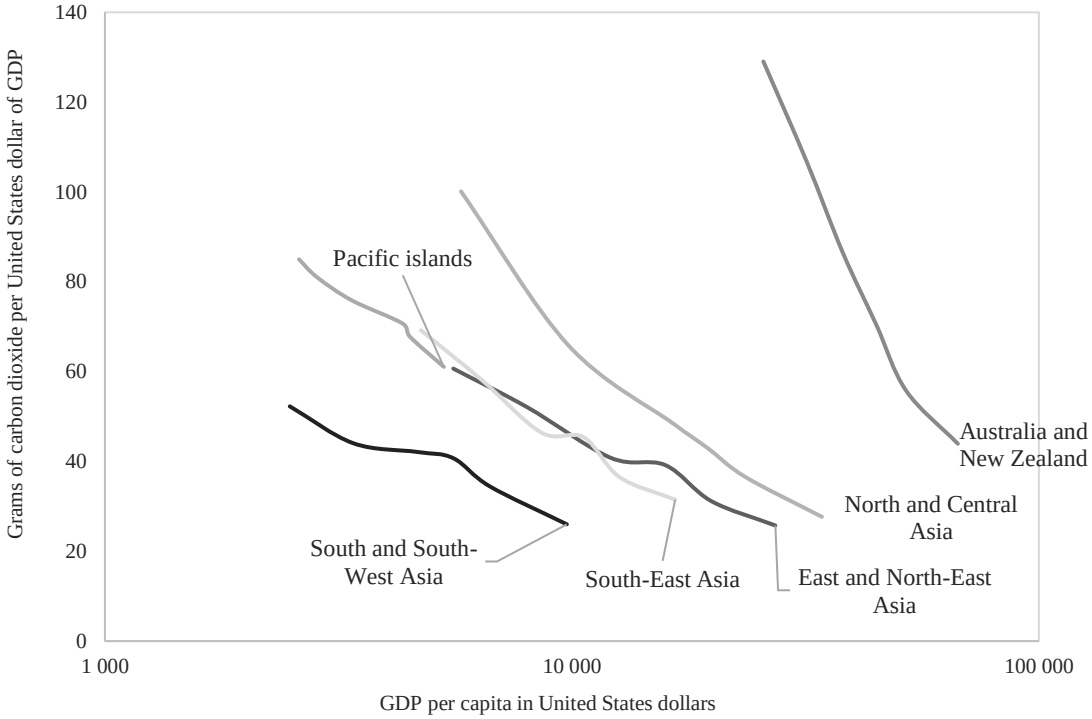
22. In 2000, the carbon dioxide emissions caused by road transport in Asia and the Pacific measured 66 grams per dollar of GDP on average (see figure VI). By 2023, that value had decreased significantly, to just 27 grams per dollar of GDP. This achievement is impressive, as the Asia-Pacific region outperformed regions with higher GDP per capita such as Europe and North America, which recorded an emissions intensity of 42 grams per dollar of GDP in 2023.[17]

[15] Based on data provided by the Asian Transport Observatory. For more information, see https://asiantransportobservatory.org/analytical-outputs/sdg-and-decade-of-action-2025.

[16] Monica Crippa and others, "Insights into the spatial distribution of global, national, and subnational greenhouse gas emissions in the Emissions Database for Global Atmospheric Research (EDGAR v8.0)", *Earth System Science Data*, No. 16 (June 2024).

[17] Based on data provided by the Asian Transport Observatory. For more information, see https://asiantransportobservatory.org/analytical-outputs/sdg-and-decade-of-action-2025.

Figure VI
**Carbon dioxide emissions intensity from road transport in relation to gross domestic product in the period from 2000 to 2023**




*Source*: Calculations provided by the Asian Transport Observatory. For more information, see https://asiantransportobservatory.org/analytical-outputs/sdg-and-decade-of-action-2025.

*Abbreviation*: GDP, gross domestic product.

23. Despite the lack of progress in reducing air pollution in the transport sector,[18] the road sector – notable for its contribution to pollution – has seen significant improvements. Emissions from road transport have decreased for all pollutants. In addition, fine particulate matter ($PM_{2.5}$) emissions in the road sector in Asia and the Pacific have decreased by approximately 2.5 per cent annually in the period from 2000 to 2022; however, Europe and North America achieved even more significant reductions, averaging about 5.3 per cent per year.[19]

24. Enhancing vehicle emission standards and fuel quality is a key factor in reducing air pollution from road transport. For instance, the proportion of vehicle registrations in the region with emission standards of Euro 4 or higher rose from 9 per cent in 2010 to approximately 90 per cent in 2023.[20]

[18] In particular, coarse particular matter ($PM_{10}$), nitrogen oxides (NOx) and sulphur oxide (SOx) pollutant emissions from the transport sector in the region have significantly rebounded after initial improvements from the 1990s and early 2000s.

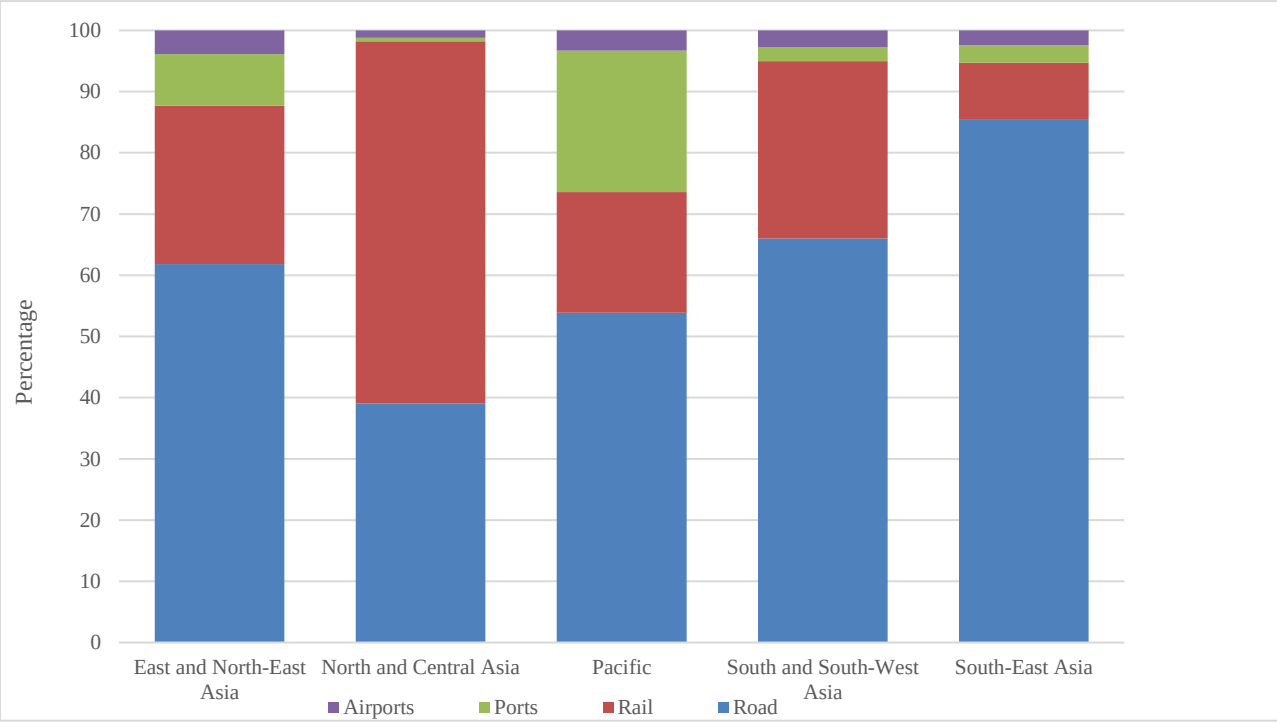
[19] European Commission, "EDGAR v6.1 global air pollutant emissions", Emissions Database for Global Atmospheric Research. Available at http://data.europa.eu/89h/df521e05-6a3b-461c-965a-b703fb62313e (accessed on 28 February 2025).

[20] Asian Transport Outlook, "Have we made any progress on transport related air pollution in Asia?" (2024).

25. The Asia-Pacific region also incurs a disproportionate burden due to multi-hazard damage to its surface transport infrastructure. At the global level, the expected median yearly damage to transport assets, including roads, railways and ports, is estimated to be approximately $20 billion. It is estimated, however, that an overwhelming 60 per cent, or $12 billion, of that damage will occur in the region.[21]

26. In Asia and the Pacific, the road infrastructure alone accounts for almost two thirds of annual losses caused by climate change and natural hazards (see figure VII). This significant financial impact underscores the vulnerability of the region's road sector to various natural hazards. Notably, tunnels and bridges, which comprise only about 1 per cent of total road infrastructure, are projected to account for 23 per cent of the damage.[22] Due to the significantly higher value of the road stock, approximately 87 per cent of estimated road damages occur in East and North-East Asia.

Figure VII
**Share of average annual losses caused by climate change and natural hazards, by transport mode**




*Source*: Calculations provided by the Asian Transport Observatory. For more information, see https://asiantransportobservatory.org/analytical-outputs/sdg-and-decade-of-action-2025.

[21] Coalition for Disaster-Resilient Infrastructure, "Building & infrastructure". Available at https://giri.unepgrid.ch/facts-figures/building-infrastructures (accessed on 28 February 2025).

[22] Computed using Coalition for Disaster-Resilient Infrastructure, "Building & infrastructure". Available at https://giri.unepgrid.ch/facts-figures/building-infrastructures (accessed on 28 February 2025); and Dominik Wiedenhofer and others, "Mapping and modelling global mobility infrastructure stocks, material flows and their embodied greenhouse gas emissions", *Journal of Cleaner Production*, No. 434 (January 2024).

27. These figures reflect only direct damage, suggesting that the actual economic losses, including indirect effects on trade, tourism and productivity, are likely much more significant. Annual damages caused to transport infrastructure are equivalent to 0.04 per cent of the region's GDP, highlighting the urgency for substantial investment in resilient infrastructure to alleviate the economic repercussions of these hazards.

28. Another global indicator – the national road vulnerability index – demonstrates that Pacific island States are particularly vulnerable to disruptions because of inadequate networks and limited geographical space. Moreover, several North and Central Asian countries rank lower due to deficiencies in their road networks resulting from challenging terrains. A notable concern is the group of countries that still rank low despite having extensive road networks (at least 100,000 km), mainly due to a lack of redundancy in the system.[23]

# III. Enhancing infrastructure and operational connectivity along the Asian Highway Network

29. Described trends in the regional road transport sector development underscore the importance of enhancing the efficiency, resiliency and safety of road transport operations along the Asian Highway Network. Progress in this area is particularly important for the landlocked developing countries in the region, which remain heavily dependent on road transport.

30. According to the Regional Action Programme on Sustainable Transport Development in Asia and the Pacific (2022–2026), adopted in 2021, ESCAP is working towards the greater efficiency, sustainability and resilience of the regional land transport network, as formalized by the Intergovernmental Agreements on the Asian Highway Network, the Trans-Asian Railway Network and Dry Ports, through a number of measures, such as the provision of assistance to member States in harmonizing operational standards, as appropriate, including cross-border and transit requirements, and implementing transport facilitation tools and frameworks. The related activities, as formulated, include the provision of technical assistance to member States, upon request, on the formulation of agreements related to the operationalization of the Asian Highway Network.

31. A useful reference in this regard is the Regional Strategic Framework for the Facilitation of International Road Transport,[24] which was adopted by the participants at the Second Ministerial Conference on Transport, held in Bangkok in March 2012. The Framework contains a breakdown of the fundamental elements of international road transport, which are as follows: (a) road transport permits and traffic rights; (b) visas for professional drivers and crews of road vehicles; (c) temporary importation of road vehicles; (d) insurance of vehicles; (e) vehicle weights and dimensions; and (f) vehicle registration and inspection certificates.

32. The Framework also contains suggested key modalities for facilitating international road transport, which comprise: (a) building an effective legal regime; (b) wider applications of new technologies; (c) the development of professional training for international road transport; (d) the establishment or

[23] Elco Koks and others, "A global assessment of national road network vulnerability", *Environmental Research: Infrastructure and Sustainability*, vol. 3, No. 2 (June 2023).

[24] ESCAP resolution 68/4, annex, appendix II.

strengthening of national facilitation coordination mechanisms; (e) the promotion of joint control at border crossings; (f) the promotion of economic zones at border crossings, dry ports and logistics centres; and (g) the further application of facilitation tools.

33. In the following sections, selected issues of direct relevance to the operationalization of the Asian Highway Network through infrastructure or operational connectivity issues, including those contained in the Regional Strategic Framework for the Facilitation of International Road Transport, are highlighted.

## A. Continued infrastructure development of the Asian Highway Network

34. Increasing availability and quality of road transport infrastructure remains the key issue for Asia and the Pacific, including the members of the Asian Highway Network.

35. The percentage of official development assistance directed towards roads has declined from 52 per cent in the period from 2002 to 2005 to 35 per cent in the period from 2016 to 2022,[25] but in public-private partnership investments, the road subsector continues to lead, increasing its share from 48 per cent in the period from 2002 to 2005 to 63 per cent in the period from 2016 to 2022.[26]

36. Climate finance may represent another option for road transport financing. The transport sector accounts for 7 per cent of total project approvals from multilateral climate change funds in the region since 2003, with over half of the funding concentrated on road transport.[27] However, the data highlight a troubling funding gap, as only 1 per cent of transport-related financial support reaches low-income countries, exacerbating existing development issues. While the total approved funding for transport and storage projects has nearly doubled since 2015, the increase is minimal compared with those in sectors like forestry, industry and energy generation. This suggests a pressing need to prioritize sustainable transport solutions to meet climate objectives and promote a more equitable development trajectory in the Asia-Pacific region.

37. An important issue to highlight is the availability of data on the quality of the Asian highways across the region. It is estimated that about two thirds of the roads in the Network are still classified as class II or below, but this may not reflect the progress made in improving road infrastructure quality across the region.

## B. Road transport permits and traffic rights: the role of international transport agreements

38. Countries across Asia and the Pacific continue to rely on dedicated road transport agreements to operationalize the existing road infrastructure for cross-border transport operations, touching upon various aspects, including

[25] Organisation for Economic Co-operation and Development (OECD), OECD Data Explorer. Available at https://data-explorer.oecd.org/ (accessed on 13 October 2024).

[26] World Bank, “Private participation in infrastructure (PPI) database”. Available at https://ppi.worldbank.org/en/ppi (accessed on 28 February 2025).

[27] Asian Transport Outlook, *Bridging the Gap: A Deep Dive into NDCs and Transport Policy Landscapes in Low- and Middle-Income Asian Economies* (2024).

traffic rights, road transport permits and other rules and regulations for cross-border transport of people and goods.

39. Bilateral agreements represent a mainstay of legal frameworks for cross-border transport, especially for landlocked developing countries. ESCAP member States entered into a significant number of such agreements, reaching or exceeding 50 for some countries. Approaches to arranging international road transport operations vary by country, especially in respect of traffic rights. The level of liberalization also varies, with some limiting the geographical scope to routes in border areas only, while others grant rights to undertake international road transport operations throughout the territory of a given country without permits. The gradual harmonization of the provisions of bilateral agreements on international road transport throughout the region can make it easier to ensure their uniform interpretation by the responsible government agencies and the private sector in different countries. It can also ensure that the provisions are implemented more efficiently, thereby benefiting the further development of international road transport, which is an important component of enhancing regional connectivity in Asia and the Pacific.

40. A number of transport facilitation agreements support subregional economic development, trade and integration, under the existing subregional organizations and programmes. Examples of such agreements include the instruments developed under the auspices of the Association of Southeast Asian Nations (ASEAN), the Commonwealth of Independent States, the Economic Cooperation Organization and the Shanghai Cooperation Organization.

41. With regard to the Agreement of the Shanghai Cooperation Organization Member States on the Facilitation of International Road Transport, ESCAP provided technical support throughout the period of its formulation, which culminated in the signing of the Agreement in 2014. The Agreement is managed by the secretariat of the Shanghai Cooperation Organization, which serves as the Agreement's depositary and facilitates the meeting of the Joint Committee established under the Agreement to oversee and coordinate its implementation.

42. In other cases, multilateral agreements are being concluded between ad hoc groups of countries to deal with certain matters of transport facilitation. One such example is the Intergovernmental Agreement on International Road Transport along the Asian Highway Network, which was signed by the Governments of China, Mongolia and the Russian Federation in 2016.

43. Pursuant to ESCAP resolution 73/4, the secretariat continues to support the parties to the Intergovernmental Agreement on International Road Transport along the Asian Highway Network in its implementation. Such support includes the organization of thematic expert group meetings to discuss matters pertaining to the functioning of the Agreement. Upon the request of the parties to the Agreement, the secretariat also provides support to meetings of the Joint Committee established under the Agreement. With the active support of the secretariat, Kyrgyzstan is in the process of acceding to the Agreement, with a view to becoming the fourth State to do so.

44. In September 2023, the Agreement on Strengthening Land Transport Connectivity in Central Asia was signed by the Governments of Kazakhstan, Tajikistan, Turkmenistan and Uzbekistan. The Agreement is a framework and multilateral legal instrument developed with the technical assistance of ESCAP with a view to providing a legal basis for increasing the efficiency of transport connectivity in Central Asia, including road transport connectivity. As of

February 2025, Tajikistan, Turkmenistan and Uzbekistan had completed the internal procedures required for the entry of the Agreement into force.

45. In order to support countries in dealing with road traffic rights and to elaborate a harmonized legal approach to the matter, the secretariat developed a model bilateral agreement on international road transport[28] and a model subregional agreement on transport facilitation[29] as a set of transport facilitation components that could constitute a subregional agreement. Recommendations on optimal configurations were also included. Both models were updated in 2021 to incorporate provisions of force majeure circumstances – the importance of which became obvious during the disruptions of transport operations resulting from the coronavirus disease (COVID-19) pandemic – through a dedicated model annex that could be incorporated into both bilateral and multilateral agreements on road transport.

46. In addition, a database of bilateral and multilateral agreements related to road transport[30] was set up by the secretariat in 2016. The database contains the texts of bilateral and multilateral agreements that were provided to the secretariat by ESCAP member States or that are freely available online. Subject to the continued interest of member States and the availability of resources, the secretariat will consider updating the database, since several new legal instruments on road transport facilitation have appeared since its launch.

## C. Motor vehicle insurance

47. At present, many Asia-Pacific countries still require a short-term insurance policy to be purchased for foreign vehicles at border crossings or for other arrangements to be made with customs through local agents. This often leads to delays at border crossings and poses increased risks for drivers carrying cash over long distances, in particular in transport operations that traverse several countries.

48. The first international motor vehicle insurance system, the green card system, was established in 1949 in Europe under the auspices of the Economic Commission for Europe. Through the involvement of the European Union and the European Free Trade Association, the system was expanded to other regions. The Council of Bureaux is a specially established organ that maintains this international motor vehicle insurance system. Currently, more than 45 countries, mostly in Europe, participate in the system, including several ESCAP member States.

49. The use of the green card system, which is well-established and operates successfully, could be a good solution for international road carriers across the region. However, the success of the system depends on: (a) the traffic volume in member States that participate in the green card system; (b) the costs for the use of the system; (c) territorial or transport connectivity with existing member States; (d) the willingness of local insurance companies; and (e) the ability of countries to satisfy the requirements for accession to the system. Therefore, the system is not currently designed to include all countries in Asia.

[28] E/ESCAP/MCT(3)/11, annex III.

[29] E/ESCAP/MCT(3)/11, annex II.

[30] ESCAP, “Database of agreements related to international road transport”. Available at https://tadb.unescap.org/.

50. Although subregional insurance schemes in Asia and the Pacific have been considered for many years, some progress still needs to be made in the operating of the subregional systems, and there are some concerns related to cost. ASEAN set up a scheme (blue card) for compulsory motor vehicle insurance coverage in South-East Asia in April 2001. The system was also adopted in the ASEAN Framework Agreement on the Facilitation of Inter-State Transport of 2009. Furthermore, a motor vehicle third-party insurance scheme is mandated in article 14 of the ASEAN Framework Agreement on the Facilitation of Goods in Transit of 1998. The blue card system operates within the territories of the ASEAN member States that are parties to the above-mentioned agreements.

51. A motor vehicle third-party insurance scheme was established under the auspices of the Economic Cooperation Organization and is embedded in article 22 of its Transit Transport Framework Agreement of 1998. Details of the scheme are provided in annex V to the Agreement, and article 2 calls upon contracting parties that are not yet parties to the international green card system to take the necessary steps to sign the said Agreement. In order to help contracting parties that were facing difficulties in immediately joining the green card system, an interim scheme, known as the white card system, was established. The interim arrangement never fully materialized, except in select countries, and the application of the white card system remains quite limited.

52. In summary, the existing motor vehicle insurance systems in the Asia-Pacific region are geographically fragmented and have limited scope in terms of their application. A number of countries whose geographical positions are vitally important to strengthening land transport connectivity by road, including China, India, Mongolia and the Republic of Korea, are not currently participating in any of the existing card systems. The membership of the Russian Federation in the green card system has been suspended since 2023.

53. Further operationalization of the Asian Highway Network routes for increased seamless and sustainable connectivity requires a set of modern, relevant and up-to-date policy and technical tools. The development of a more integrated motor vehicle insurance system is an important means of ensuring that people and goods can cross borders more smoothly. The development of such a system could not only contribute to smoother and more efficient cross-border transportation of goods by land, but also provide more opportunities for people to engage in cross-border travel more easily, thereby benefiting vulnerable groups of people such as women and people with disabilities.

## D. Addressing transit transport challenges

54. The secretariat has developed numerous knowledge products to enhance the understanding of policymakers regarding the planning and implementation of paperless transit transport systems. Such products include a guide on establishing an automated customs transit transport system; a study on paperless transit; and a training manual on paperless transit.[31] Experience shows that transit issues can be better addressed by landlocked developing countries working in the close cooperation with transit countries, as landlocked developing countries (either individually or as a group) may face unique

[31] ESCAP, *Guide on Establishing an Automated Customs Transit Transport System* (Bangkok, 2016); *Monograph Series on Transport, Facilitation and Logistics Development in Asia and the Pacific: Study on Paperless Transit* (Bangkok, 2015); and *Guide on Paperless Transit: Training Manual* (Bangkok, 2015).

geopolitical challenges and opportunities that need careful consideration for smooth transit transport.

55. Landlocked developing countries and transit countries in each Asia-Pacific subregion should work together to strengthen or redesign respective transit systems, taking into consideration current initiatives and focusing, as appropriate, on specific transit corridors within the subregion while fully leveraging digital solutions and technologies. The key items or actions needed to strengthen transit systems include the following: (a) harmonized customs transit documents; (b) simple, transparent and fast-tracked border crossing formalities for transit, with inspections based on risk assessment; (c) an authorized scheme for transit operators that meets international or regional standards of quality and compliance in order to access the fast-tracked subregional integrated transit system; (d) a guarantee and other documentary requirements planned in cooperation with the private sector; and (e) a review and necessary modification of bilateral and plurilateral transit transport agreements that could be restrictive and incompatible with efforts to develop an integrated transit system.

56. In South Asia, two landlocked developing countries, namely Bhutan and Nepal, could improve transit facilitation by following the guidance provided above. Currently, the transit processes in South Asia are fragmented and largely based on the institutional arrangements these countries have with India. The agreement on trade, commerce and transit that was signed by the Governments of Bhutan and India in 1972 and revised for the fifth time in 2016 provides for transit and trade arrangements between the two countries.[32] Similarly, the Governments of India and Nepal signed a treaty of transit in 1999, which was revised in June 2023 for a period of seven years and contains an auto-renewal clause.[33] The Governments of Bangladesh and India have a truncated arrangement for transit, which allows landlocked states in the north-east of India to use ports in Bangladesh; however, overland transit remains restricted. Moreover, it appears that Bhutan and Nepal do not have transit rights to access seaports in Bangladesh. The full trade potential of South Asia can be harnessed through a digitally enabled subregional transit arrangement that provides for simplified, transparent and streamlined formalities. Given that ESCAP has vast expertise dealing with transit transport issues, it can support countries that request assistance in developing such a transit system.

57. Most landlocked developing countries in Central Asia are signatories to the Customs Convention on International Transport of Goods under Cover of TIR Carnets, which provides for a streamlined procedure for the internationally guaranteed movement of goods and vehicles from origin to destination. However, experience suggests that this transit system works more economically for shipments covering long distances, while being expensive for the short distances between countries in Central Asia. To reduce transit costs, countries in Central Asia have been working to develop an advanced transit system under the Central Asia Regional Economic Cooperation Programme of the Asian Development Bank. Initiatives such as this one need to be promoted

[32] Bhutan, Embassy of Bhutan in India, “Bhutan-India trade relations”. Available at www.mfa.gov.bt/rbedelhi/bhutan-india-relations/bhutan-india-trade-relations/ (accessed on 28 February 2025).

[33] India, Embassy of India in Nepal, “Commerce wing brief”. Available at www.indembkathmandu.gov.in/commerce-wing-brief (accessed on 28 February 2025).

among countries in Central Asia to reduce transit costs in order to foster intraregional trade.

58. In South-East Asia, countries including the Lao People's Democratic Republic, a landlocked developing country, are already implementing an ASEAN customs transit system,[34] which is a computerized transit management system available to transport operators in ASEAN member States that move goods across borders. The duties and taxes owed are covered by a single guarantee for all the countries involved in the transit operation. The system also includes the option of applying for authorized transit trader status to facilitate fast-track transit procedures.

59. Supporting landlocked countries through enhanced maritime transit can be equally beneficial to coastal countries, as they may experience an increase in trade volume, thus contributing to their economic growth. An increase in goods passing through transit ports means higher revenues, and not just from port services, customs duties and handling fees. It also generates additional business demand for overland transporters and logistics service providers alike. Moreover, given that landlocked countries also border other countries, new trade markets could potentially open up for their coastal neighbours, thereby offering alternative routes for goods movement. Diversified transport routes and trade markets can be advantageous in times of logistical or geopolitical disruptions, minimizing risks related to overreliance on specific routes or markets.

60. Recognizing the importance and economic benefits of infrastructure connectivity, efforts to enhance it have been undertaken by ESCAP member States. For example, infrastructure connectivity between the Lao People's Democratic Republic and its maritime neighbours has improved markedly in recent years. Rail operations between China and the Lao People's Democratic Republic transported 34.24 million tons of cargo between December 2021 and March 2024.[35] The Governments of the Lao People's Democratic Republic and Thailand are currently working together to build the fifth bridge[36] across the Mekong River. Both Governments have also affirmed their interest in building a sixth bridge[37] to further integrate their road networks. Through the Lao Logistics Link project, the Governments of the Lao People's Democratic Republic and Viet Nam are cooperating closely to improve overland connectivity, in particular between the landlocked Laotian territory and the Vung Ang deep seaport in Viet Nam. All these initiatives were undertaken with the aim of strengthening the land-maritime link of the Lao People's Democratic Republic in order to better integrate it into the global supply chain.

61. Against this background and building on the previous work on sustainable infrastructure and low-impact transport systems, the secretariat is undertaking a new project on accelerating collective action in the context of the Programme of Action for Landlocked Developing Countries for the Decade 2024–2034 with a view to strengthening operational connectivity along the

[34] See https://acts.asean.org/acts.

[35] Lao News Agency, "Laos-China railway handles over 30 mln passenger trips", 15 March 2024.

[36] Greater Mekong Subregion, "Fifth Lao-Thai friendship bridge approaches full completion and opening". Available at https://greatermekong.org/g/fifth-lao-thai-friendship-bridge-approaches-full-completion-and-opening (accessed on 24 March 2025).

[37] Chono Lapuekou, "Thailand interested in building sixth friendship bridge to Laos", *The Laotian Times*, 6 June 2024.

Asian Highway Network and beyond. The goal of the project is to help enhance connectivity between landlocked and transit countries through the promotion of sustainable transport corridors to achieve low-impact, resource-efficient and resilient transport systems.

## E. Leveraging global and regional initiatives to enhance road safety along the Asian Highway Network

62. The United Nations has galvanized global action to reverse the road fatalities crisis. Since 2010, the General Assembly has adopted a number of resolutions on improving road safety, including its resolution 74/299 of 31 August 2020, in which it proclaimed the period 2021–2030 as the Second Decade of Action for Road Safety, with the ambitious goal of reducing road traffic fatalities and injuries by at least 50 per cent by 2030. In the same resolution, the Assembly requested the World Health Organization (WHO) and the United Nations regional commissions to prepare a plan of action for the Second Decade as a guiding document to support the implementation of its objectives. In response, the secretariat joined the Global Task Force led by WHO to develop a global plan of action. The Global Plan for the Second Decade of Action for Road Safety 2021–2030 was finalized and launched by the global community on 28 October 2021.[38] At the Fourth Global Ministerial Conference on Road Safety, held in Marrakech, Morocco, from 18 to 20 February 2025, a midterm review was undertaken of progress made in implementing the Global Plan, which helped to reinvigorate international commitment and to encourage countries to align their national strategies with proven interventions outlined in the Plan.[39]

63. Asian Highway Network member countries have actively embraced regional initiatives in line with global goals. In the Regional Action Programme for Sustainable Transport Development in Asia and the Pacific (2022–2026), road safety was identified as a priority area. A key outcome of the Regional Action Programme was the development of the Regional Plan of Action for Asia and the Pacific for the Second Decade of Action for Road Safety 2021–2030, which was crafted to mirror the Global Plan's approach and was welcomed by the Committee on Transport at its seventh session. In the Regional Plan, the diverse contexts across Asia and the Pacific are recognized, and the safe system approach, which advocates for a holistic strengthening of road safety management, safer roads, safer vehicles and post-crash care, is promoted. Importantly, the Regional Plan contains a shared regional target: a reduction of 50 per cent in road crash fatalities and injuries by 2030, which is fully aligned with the global goal laid out in the Global Plan for the Second Decade of Action for Road Safety 2021–2030. This unified framework guides Asian Highway Network member countries in implementing evidence-based measures, from stricter traffic law enforcement to improved road engineering, to meet the target date of 2030.

64. Translating plans into action, the secretariat and Asian Highway Network member countries have rolled out targeted projects and policy measures. With support from the United Nations Road Safety Fund, the secretariat is undertaking initiatives to assist ESCAP member States. These initiatives include strengthening the National Road Safety Commission of the Islamic Republic of Iran; designing safer and more inclusive roads in Central Asia; enhancing motorcycle safety in Thailand; advocating for anti-lock

[38] See www.who.int/publications/m/item/global-plan-for-the-decade-of-action-for-road-safety-2021-2030.

[39] See www.roadsafetymorocco.com.

braking systems for motorcycles in ASEAN member States; and enhancing safe school zones in Viet Nam. All of the initiatives are aimed at elevating road safety standards across the Asian Highway Network. Alongside these projects, there is a push for stronger traffic safety legislation. In 2024, ESCAP published the report *Status of Road Safety in the Asia-Pacific Region 2024*, in which the secretariat provided critical insights and called for further research, policy innovation and community engagement to enhance enforcement effectiveness, with a view to ensuring sustained progress towards safer roads in the region. Stronger traffic safety legislation, reinforced through public awareness campaigns and stringent enforcement measures, helps to address key risk factors and can play a vital role in saving lives on the Asian highways.

65. Recognizing that accurate data and robust standards form the backbone of effective road safety management, ESCAP joined with global partners to establish the Asia-Pacific Road Safety Observatory in 2019, creating a dedicated platform for collecting and analysing road safety data across the region. Today, 18 Asian Highway Network member countries are part of the initiative, leveraging its data insights to identify problem areas and track progress made in reducing crashes. This evidence-based approach complements the emphasis on safer infrastructure. The Intergovernmental Agreement on the Asian Highway Network explicitly requires member countries to consider road safety in developing the Network, and comprehensive design standards for road safety are set out in annex II bis to the Agreement. These standards provide practical guidelines – from better road geometry and junction design to improved roadside protection – to help countries upgrade Asian Highway Network routes to increase safety. By investing in data-driven strategies and adhering to region-specific safety engineering standards, Asian Highway Network member countries are working collectively to create a safer road network and to achieve the ambitious reductions in road fatalities envisioned by 2030.

### F. Supporting digitalization and decarbonization momentum along the Asian Highway Network

66. There are opportunities and risks for the performance of the international road transport operations along the Asian Highway Network, including those related to climate change and the introduction of new technologies. As a result, greater consideration needs to be given to the impact of digitalization and decarbonization initiatives on the performance of those road transport operations. In that regard and building on the previous discussions conducted by the Working Group on the Asian Highway on the low-carbon nature and resilience of the Asian highways, the secretariat has issued a separate document on leveraging the Network to support the digitalization and decarbonization of global and regional supply chains under agenda item 5 (ESCAP/AHWG(11)/5).

## IV. Issues for consideration by the Working Group

67. Based on the information contained in the present document, the Working Group may wish to provide guidance to the secretariat on the continued operationalization of the Asian Highway Network. In this connection, it may wish to recommend the following actions for the member countries of the Network and other member States:

(a) Undertake sustained development and upgrading of the road network infrastructure and engage in greater information-sharing on the quality of the Asian highways;

(b) Ease the requirements for cross-border road transport permits, including through bilateral and multilateral road transport agreements;

(c) Strengthen regional and subregional cooperation on transit operations in order to support seamless connectivity, benefiting both landlocked and transit countries;

(d) Address the issue of motor vehicle insurance;

(e) Leverage global and regional initiatives to enhance road safety along the Asian Highway Network.

68. The Working Group may also wish to share other insights on the priorities and challenges in improving regional land transport connectivity and logistics, as well as interregional transport connectivity, in the context of the preparations for the next phase of the Regional Action Programme for Sustainable Transport Development in Asia and the Pacific, to be considered at the Fifth Ministerial Conference on Transport, in 2026. In this connection, the Working Group may wish to recommend updating the Regional Strategic Framework for the Facilitation of International Road Transport, adopted by the participants at the Second Ministerial Conference on Transport in 2012, to reflect new and emerging issues and best practices in road transport facilitation along the Asian Highway Network and beyond.