POLICY BRIEF

# TRANSITIONING TO LOW CARBON TRANSPORT IN ASIA AND THE PACIFIC THROUGH REGIONAL COOPERATION

ESCAP
Economic and Social Commission for Asia and the Pacific

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# SUMMARY

The adoption of the Paris Agreement by 196 countries in 2015 created a political momentum for climate change mitigation. The goal of the Paris Agreement is to limit global temperature increase to well below 2 degrees Celsius, and preferably to 1.5 degrees Celsius, compared to pre-industrial levels. The implementation of the Paris Agreement will require economic and social transformations in all sectors, including the transport sector where fuel combustion accounts for 24 per cent of direct carbon dioxide ($CO_2$) emissions, globally. Almost all of the 194 countries that submitted Nationally Determined Contributions (NDCs) mentioned transport, while 81 per cent of the NDCs include transport-related measures. However, only 33 per cent indicated specific $CO_2$ mitigation targets for the transport sector.

From landlocked countries to small island developing states, the member States of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) have different priorities and challenges on their paths to reduce transport-related greenhouse gas (GHG) emissions. Transport measures included in the NDCs of ESCAP member States primarily focus on the promotion of public bus transport, alternative energy sources, electric mobility, and sustainable maritime transport connectivity. However, despite the significant role the transport sector plays in mitigating climate change, transport ministries are usually not directly involved in the process of developing or revising NDCs. This can be attributed to a lack of institutional mechanisms to engage transport stakeholders and policymakers in the process.

To address this gap, ESCAP launched the Regional Cooperation Mechanism on Low Carbon Transport in Asia and the Pacific in 2022 as one of the core activities under the Regional Action Programme for Sustainable Transport Development in Asia and the Pacific (2022–2026). The objective of this mechanism is to deepen regional collaboration through the sharing of experiences, information and best practices, as well as to identify common interests and policy priorities. To date, it has consulted more than 30 countries about how ESCAP can best support them in their low carbon transport strategies, as well as on how to strengthen cooperation among countries towards their common goals.

This has helped ESCAP to accelerate collaborative efforts on low carbon transport action. At the first regional meeting of the Regional Cooperation Mechanism, held on the sidelines of the Asia Pacific Climate Week in November 2023, countries identified priority topics for in-depth analysis and technical assistance for the next phase of the Regional Cooperation Mechanism. These topics reflect their common needs, including the development and implementation of low carbon transport targets and timelines, the establishment of green transport corridors, and the identification of climate financing mechanisms for low carbon transport.

While current forecasts suggest that the Asia and Pacific region will experience rising transport demand and $CO_2$ emissions, the region has the potential to achieve economies of scale in emerging low carbon transport technologies and systems, as well as to influence global climate action at the same time. As countries start to implement the Paris Agreement through their NDCs, stronger collaboration between them can

help to identify regional and national priorities and align these with global efforts to decarbonize transport.

Regional cooperation is therefore expected to play an increasingly critical role in advancing the goals of the Paris Agreement. It can harmonize national climate and transport goals, while enhancing the influential role that countries in Asia and the Pacific play in global climate change and transport policy processes.

# I. INTRODUCTION

The adoption of the United Nations Framework Convention on Climate Change (UNFCCC) Paris Agreement by 196 countries in 2015 created a political momentum for climate change mitigation across all sectors. Its goal is to limit global temperature increase to well below 2 degrees Celsius, and preferably to 1.5 degrees Celsius, compared to pre-industrial levels. As of the end of 2023, 194 countries had submitted their first plans for climate action, known as nationally determined contributions (NDCs), with many also submitting revised or updated NDCs. Almost all of the countries that submitted NDCs mentioned transport, and 83 per cent of the NDCs include transport-related measures, but only 33 per cent indicated specific transport carbon dioxide ($CO_2$) mitigation targets (ITF, 2024). While only a handful of countries with specific transport targets are located in Asia and the Pacific, most ESCAP member States mention the role of transport in their NDCs, with a focus on the promotion of public bus transport, alternative energy sources and electric mobility (Figure 1).

As countries are expected to increase their policy ambitions every five years (according to the five-year cycle of the Paris Agreement), there are new opportunities to enhance mitigation measures in the transport sector. The implementation of the Paris Agreement will require economic and social transformations in all sectors, including the transport sector where fuel combustion accounts for 24 per cent of direct $CO_2$ emissions, globally (IEA, 2023). Transport emissions grew at an annual average rate of 1.7 per cent from 1990 to 2022, faster than any other end-use sector except for industry, which had a similar growth rate (IEA, 2023). As one of the fastest-growing $CO_2$ emitting sectors, it is currently not on track to meet its decarbonization target by 2050.

Despite the significant role the transport sector plays in mitigating climate change, transport ministries are usually not directly involved in the process of developing and revising NDCs. This can be attributed to a lack of institutional mechanisms to engage transport stakeholders and policymakers in the process. In this regard, a stronger presence of transport and other line ministries in climate change policy processes will accelerate the achievement of the goals of the Paris Agreement and ensure broader stakeholder engagement. This is essential across all regions, especially in Asia and the Pacific where population and economic growth are expected to be the highest and transport demand and emissions will continue to increase.

The region is expected to see the greatest growth in demand for passenger transport, freight transport by road, rail, and inland waterways, as well as domestic shipping and aviation transport. Furthermore, urban transport demand is the highest in Asia and the Pacific, accounting for 40 per cent of global transport activity in 2015, the largest share of all regions (ITF, 2023). Meanwhile, non-urban transport demand is projected to triple by 2050. Without additional and more ambitious policy interventions, this is a region where $CO_2$ emissions are expected to increase over the next 30 years by more than 50 per cent (ITF, 2023).

While current forecasts suggest that the Asia and Pacific region will experience rising transport demand and $CO_2$ emissions, the region has the potential to achieve economies of scale for emerging low carbon transport technologies and to influence global climate action. This can be greatly facilitated through stronger collaboration among countries.

## CLOSER COLLABORATION TO ACCELERATE CLIMATE ACTION

Many countries in the Asia and Pacific region have started to implement the Paris Agreement at the national level through the development of transformational climate action plans. Greater communication and sharing of information can help countries align their regional and national priorities with global decarbonizing transport efforts. A regional perspective will help them to recognize the opportunities and barriers for mitigation, opportunities for joint action, and common vulnerabilities (Agrawala *et al*., 2014). Regional cooperation has also been recognized for its critical role in advancing the goals of the Paris Agreement. It can enhance linkages between global and national or subnational action on climate change, as well as governance systems, and can also complement national and global action (Agrawala *et al*., 2014; Strand, 2004).

Meanwhile, multi-stakeholder engagement in processes such as the Conferences of the Parties (COPs) under the UNFCCC and the Marrakech Partnership for Global Climate Action (MPGCA) has increased significantly over the past decade. These efforts have been a catalyst for transnational initiatives known as collaborative arrangements, which are defined as arrangements which include at least one non-state or subnational actor, operate in at least two countries, and commit to voluntary adaptation and mitigation efforts (Chan *et al*., 2022). Such arrangements can increase the participation of transport stakeholders, including transport ministries that are conventionally not directly involved in climate change action and processes. These mechanisms also serve as a platform for developing, implementing, and financing climate-specific regional initiatives for mitigation, possibly as part of global arrangements on mitigation (Agrawala *et al*., 2014). They can help harmonize national climate and transport goals, while enhancing the influential role that countries in Asia and the Pacific play in global climate change and transport policy processes.

## ESTABLISHING A REGIONAL COOPERATION FRAMEWORK

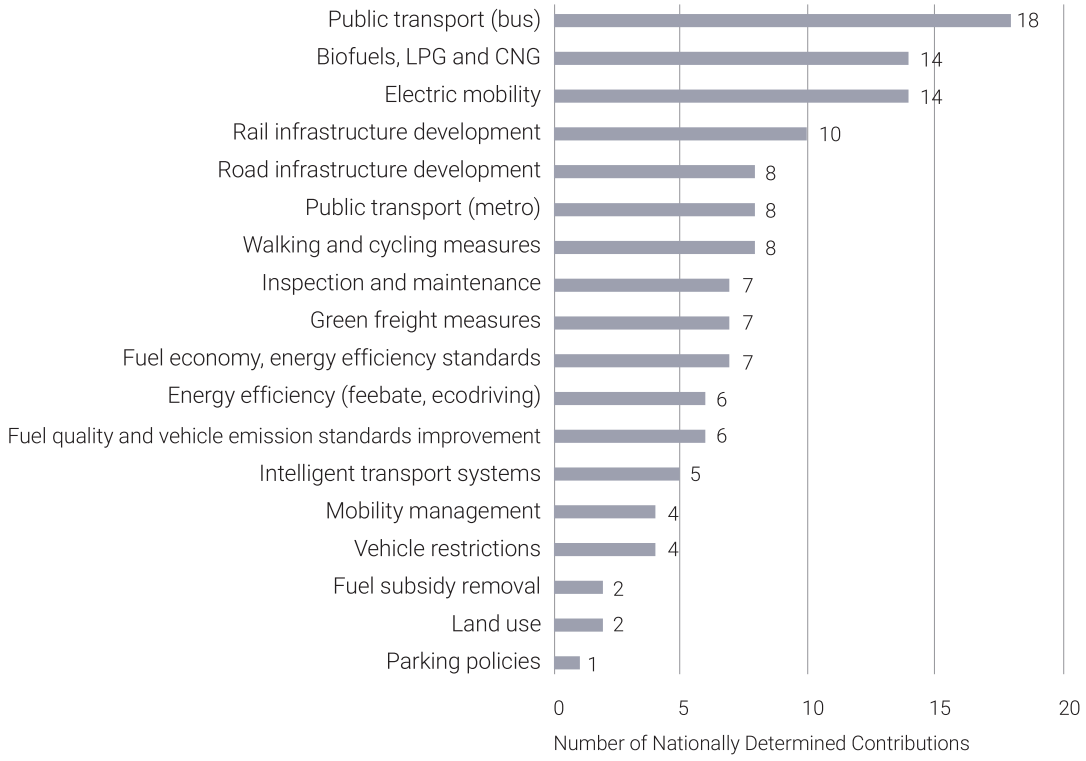
Regional cooperation is one of the core functions of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). ESCAP promotes cooperation among its 53 member States and 9 associate members in pursuit of solutions to sustainable development challenges. In the field of transport, ESCAP advances and supports regional transport infrastructure development and transport facilitation efforts, as well as sustainable and inclusive transport policies. The Regional Action Programme for Sustainable Transport Development in Asia and the Pacific (2022–2026) (ESCAP, 2022), which guides ESCAP's work on transport, includes a specific activity on establishing "a regional cooperation mechanism to promote low carbon transport, including a shift to electric mobility and clean energy technologies to contribute to transport emissions reductions". This led to the creation of the ESCAP Regional Cooperation Mechanism on Low Carbon Transport in Asia and the Pacific in 2022.

This policy brief introduces the ESCAP Regional Cooperation Mechanism on Low Carbon Transport in Asia and the Pacific, its current scope, relevant policy insights and main areas of focus for its next phase. **Section II. Low Carbon Transport Priorities and Challenges in Asia and the Pacific** presents the main priorities and challenges in transitioning to low carbon transport that were identified through a series of subregional consultations and capacity-building workshops held in 1) East and North-East Asia; 2) North and Central Asia; 3) South and South-West Asia; 4) South-East Asia, and 5) the Pacific (Table 1).

**Section III. Development of a Regional Cooperation Mechanism** then describes the three priority topics which were identified through these consultations for in-depth analysis and technical assistance in the next phase, namely

1) the development and implementation of low carbon transport targets and timelines, 2) the establishment of green transport corridors, and 3) the identification of climate financing mechanisms for low carbon transport. It also describes the framework for regional cooperation, including how the Regional Cooperation Mechanism will complement existing intergovernmental processes while accelerating collaboration on low carbon transport action. Such cooperation will not only raise climate ambition in the region, but also bolster transport mitigation action and targets in NDCs.

## FIGURE 1: TRANSPORT POLICIES IN NATIONALLY DETERMINED CONTRIBUTIONS OF ASIA-PACIFIC COUNTRIES




Source: Data adapted from ESCAP (2019).

## TABLE 1: ESCAP MEMBER STATES BY SUBREGION

| Subregion | ESCAP Member States |
|---|---|
| **East and North-East Asia** | China, Democratic People's Republic of Korea, Japan, Mongolia, Republic of Korea, and Russian Federation |
| **North and Central Asia** | Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, Turkmenistan, and Uzbekistan |
| **South and South-West Asia** | Afghanistan, Bangladesh, Bhutan, India, Islamic Republic of Iran, Maldives, Nepal, Pakistan, Sri Lanka, and Türkiye |
| **South-East Asia** | Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste, and Viet Nam |
| **Pacific** | Australia, Fiji, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, New Zealand, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu |

Source: ESCAP, 2023

# II. LOW CARBON TRANSPORT PRIORITIES AND CHALLENGES IN ASIA AND THE PACIFIC

## A. Background

The Asia Pacific region covers a wide geographical area, with diverse landscapes, climates, societies, cultures, and economies. Home to 60 per cent of the world's population and 70 per cent of the world's most populous cities (UN, 2018), the region continues to experience rapid urbanization, economic development, and increasing motorization, accompanied by social transformation and technological development (IMF, 2023).

On the surface, countries in the Asia Pacific region appear to share many of the environmental and social externalities of motorization, namely, growing energy use, air pollution, $CO_2$ emissions, congestion, and transport fatalities. However, a closer look reveals significant differences in socio-economic contexts, energy endowments, consumption patterns, development pathways, and other underlying drivers that influence GHG emissions and mitigation options and pathways (Agrawala *et al.*, 2014). Hence, it is imperative to better understand the different priorities and challenges of countries within Asia and the Pacific and across different subregions in order to develop targeted policies for specific needs.

Through three subregional consultations and capacity-building workshops with 31 ESCAP member States between December 2022 and June 2023, a range of priorities and challenges for the development and implementation of low carbon transport policies were identified. These were followed by a regional meeting held in November 2023 which discussed the different synergies that could be captured through greater cooperation among countries in Asia and the Pacific. The summary outcomes of these consultations are presented in the following sections.

## B. Subregional Priorities, Challenges and Synergies

### EAST AND NORTH-EAST ASIA SUBREGION AND NORTH AND CENTRAL ASIA SUBREGION

The East and North-East Asia and North and Central Asia subregions contain diverse countries in the ESCAP region in terms of the advancement of low carbon transport policies and technologies. Despite their differences, they share several common priorities, including limited access to funding, especially for the transition to zero emission vehicles; the development of clean and energy-efficient public transport; coordination and cooperation between ministries and other stakeholder groups; as well as the identification and coupling of renewable energy sources with the needs of the transport sector. Various energy options and transport pricing instruments were raised as potential low carbon transport action, in particular incentives to encourage the adoption of electric vehicles that use renewable energy.

Meanwhile, some of the common challenges facing countries in these two subregions include growing transport demand, vehicle ownership, and emissions; financing of transport infrastructure and services; renewal of public transport fleets; and implementation of

low carbon transport plans and roadmaps to transform policy to action.

The countries of these two subregions differ in terms of what stage of low carbon transport development they are currently in, which is reflected in their differing priorities. For example, the level of electrification of public transport (mainly buses) varies by country, according to their level of infrastructure development and access to battery technologies. In addition, the development of reliable public transport and traffic management systems are also common challenges in these two subregions, along with the high cost of low carbon transition measures and the immature state of alternative energy technologies, which still cannot compete with conventional fossil fuels in term of energy density, convenience and cost.

Potential synergies across the two subregions include the improvement of public transport infrastructure and services, identification of financing opportunities, and multi-stakeholder and sectoral engagement. An example of national sectoral engagement and horizontal coordination was shared by China, which currently has a national climate change group, led by the Premier of the State Council and consisting of representatives from nearly 30 departments and ministries. This collaborative approach ensures unified efforts towards climate change mitigation. In addition, data analysis and data sharing are seen as useful ways to further increase potential synergies between countries, especially at the subregional and regional levels. Lastly, countries noted that both regional and global cooperation in the development of low carbon transport strategies, policies, standards, and market mechanisms will benefit all countries in Asia and the Pacific.

### SOUTH AND SOUTH-WEST ASIA SUBREGION AND SOUTH-EAST ASIA SUBREGION

The South and South-West Asia and South-East Asia subregions show common priorities in the development and improvement of public transport networks, including bus rapid transit (BRT) systems; active mobility (walking and cycling); shift to electric mobility (specifically for public transport and two- and three-wheelers); improvements in energy efficiency (particularly through the use of renewable energy); and greater sustainability of maritime transport and ports.

Some of the common challenges facing these two subregions include increasing private vehicle ownership, especially two-wheelers; high levels of congestion; local and regional air pollution; the lack of regulation of freight transport fuel use and emissions; limited financing sources and options, including for developing infrastructure for electric mobility; and slow adoption of electric mobility due to the lack of necessary ecosystems and behavioral change. There are also notable differences between the two subregions, in particular their very different geographical characteristics. The South and South-West Asia subregion includes both landlocked countries (Afghanistan, Bhutan and Nepal) and island countries (Sri Lanka and the Maldives), while some countries in the South-East Asia subregion are composed of thousands of islands (Indonesia, the Philippines, and Thailand). In addition, existing transport regulations and standards, such as on fuel efficiency and transport innovation and digitalization, often differ between countries, even within subregions. Lastly, transport demand trends and travel behavior differ across subregions, including mode share, distance traveled and trip purpose, which can be attributed to the type of transport infrastructure and services available, as well as differing socio-demographic characteristics.

There are several potential areas of synergies and exchange of best practices and knowledge between countries in South and South-West Asia and South-East Asia. The digitalization and electrification of public transport need to take place simultaneously to provide low or zero carbon emission transport services that are affordable to all users and increase public

transport ridership. The integration of two- and three-wheelers into existing transport networks is also relevant to countries in both subregions due to the high levels of two-wheeler use and informal transit. Such integrations will cater to the needs of different users and ensure seamless transfers between transport modes where necessary. The coupling of transport electrification with renewable energy options is an area where countries in the two subregions could offer lessons learned, especially since Bhutan and Nepal in the South and South-West Asia subregion generate almost 100 per cent of their electricity from renewable energy.

The development and implementation of low carbon freight transport policies is another area that will benefit both subregions, as demand for freight transport is expected to continue to grow, and as transport and energy connectivity between these two subregions is further integrated (ADB, 2015). Multi-stakeholder and multi-sectoral engagement will enable the transport sector to play a more active role in national, regional and even global climate change policy processes. Transport ministries can participate in regional or global climate events to share information on sectoral mitigation progress and initiatives, as well as contribute more actively to the revisions of their NDCs to ensure greater alignment between national climate targets and transport goals.

## PACIFIC SUBREGION

Countries in the Pacific subregion have more transport similarities than differences compared to other subregions. Most countries in the Pacific are isolated from international markets, highly vulnerable to the effects of climate change, and experience high transport and trade costs (ADB, 2021). They are not just small island states but also large ocean communities with unique characteristics and transport needs. Discussions on common priorities within the Pacific subregion reveal a shared desire to balance the development of land and maritime transport infrastructure and services. Access to funding is a critical factor for countries in the Pacific to achieve their low carbon transport goals.

In addition, national and subnational policies also need to be further aligned. Better coordination and cooperation between ministries will support the acceleration of transport and climate action. In addition, improving the sustainability of maritime transport, including ports, continues to be a common priority for the Pacific subregion.

Regarding common challenges, countries in the Pacific subregion are observing increases in congestion due to growing transport demand and high shares of private vehicle use and vessel demand, as well as increases in air pollution and $CO_2$ emissions from transport. The need for alternative energy resources is also a challenge.

Most countries in the Pacific already have low carbon transport plans and roadmaps. However, the difficulties of transforming policies into action mean that implementation is often lacking. This could be due to the absence of legal backing for specific low carbon transport regulations and standards to support the implementation of existing plans and roadmaps. Funding for implementing low carbon transport policies and the alignment of donor interests with countries' priorities are also pressing challenges. In addition, there is currently inadequate support for technology transfer, which is widely seen as a barrier to the transition to low carbon transport in the subregion.

There is also a pressing need to further improve the resilience of transport infrastructure and services in countries in the Pacific subregion, especially in the event of future disruptions. New forms of collaboration between countries, ministries, and stakeholder groups, appropriate mechanisms for stakeholder engagement and coordination, as well as the development of legal frameworks, such as emission standards and regulations, are all required to strengthen low carbon transport

policies. Since coordination mechanisms already exist in many countries in the Pacific between the ministries of transport, infrastructure, energy, environment, and other offices dealing with climate change, the key is to develop complementary, and not competing, policies between ministries.

Capturing these potential synergies will improve subregional maritime transport and connectivity, as well as help guide the development of a decarbonization pathway to map out specific land and maritime transport activities to achieve goals for 2030 and 2050. The establishment of a donor directory to allow the matching of transport and climate-aligned projects with investors and donors, and the inclusion of topics that are relevant to countries in the Pacific on the agendas of intergovernmental meetings, will also benefit the subregion as a whole.

## C. Regional Reflections

In general, ESCAP member States are committed to the decarbonization of their transport sectors, with plans to electrify transport modes across the sector as a whole. A variety of low carbon and sustainable transport initiatives already exist in many countries, underscoring individual national commitments to reduce $CO_2$ emissions. These initiatives prioritize different transport modes or subsectors depending on challenges specific to each country.

Countries also have different national GHG emission reduction targets and timelines, which will influence the rate at which transport $CO_2$ emissions will be reduced. Some countries, such as Malaysia, have developed specific targets within the transport sector, e.g., for urban public transport, electric vehicles, and alternative fuels, while others have focused on national emission reduction targets for the entire economy or sector. Most national transport policies also contain sustainability or low carbon transport strategies, but their priorities vary depending on the main sources of transport-related $CO_2$ emissions in each country. Policies to support non-motorized transport modes, i.e., walking and biking, are considered to be equally important as the development of electric mobility.

Despite differences in transport demand, infrastructure needs, transport regulations and policies, levels of economic development, and commitment to climate mitigation, ESCAP member States identified several common priorities during the regional meeting, including greater coordination and cooperation between ministries; the development of regional policy frameworks; the provision of technological support; the identification of low carbon transport financing solutions; and mechanisms to encourage modal shift from private vehicles to public transport.

Regional cooperation will continue to enable countries in the Asia Pacific region to exchange knowledge and develop mechanisms to help them achieve their respective low carbon transport targets, ultimately advancing the goals of the Paris Agreement.

# III. THE DEVELOPMENT OF A REGIONAL COOPERATION MECHANISM

## A. Priority Topics for the Region

Based on the discussions at the three subregional consultations and capacity building workshops and the regional meeting conducted between 2022 and 2023, three priority topics for the Asia and Pacific region were identified for in-depth analysis and technical assistance during the next phase of the ESCAP Regional Cooperation Mechanism on Low Carbon Transport in Asia and the Pacific. These three topics reflect the existing gaps in the technical, institutional, and financial capacity of member States, namely 1) the development and implementation of low carbon transport targets and timelines, 2) the establishment of green transport corridors and 3) the identification of climate financing mechanisms for low carbon transport.

### DEVELOPMENT AND IMPLEMENTATION OF LOW CARBON TRANSPORT TARGETS AND TIMELINES

Most countries in Asia and the Pacific already have national transport and climate change action plans and roadmaps, often with ambitious goals and targets. However, some still lack the capacity to develop specific targets and timelines to align policies with these goals. In particular, the gaps in technical, institutional, and financial support that countries have require more precise targets and mitigation timelines to support these action plans. These should then be aligned with NDCs and Long-Term Low Emission Development Strategies (LT-LEDs) to guide the transition to low carbon transport in an efficient and inclusive manner.

More ambitious low carbon transport targets would also need to be determined, especially since $CO_2$ emissions from the transport sector must fall by more than three per cent by 2030 to be decarbonized by 2050 (IEA, 2023). Strong regulations and fiscal incentives, as well as considerable investment in infrastructure to enable low and zero emission vehicle operations and modal shifts, will be needed to achieve these emissions reductions.

### ESTABLISHMENT OF GREEN TRANSPORT CORRIDORS

The development and implementation of green freight transport policies have been identified as an important strategy for decarbonizing the transport sector. However, this is a difficult challenge for the region due to the lack of regulations and fragmentation of stakeholders in many countries. Transport corridors that are green, integrated, and efficient will also need to take into account the multimodal nature of supply chains, including land and maritime transport. Green corridors refer to specific shipping routes where the feasibility of zero-emission shipping is catalyzed by a combination of public and private actions (Fahnestock, 2022). Such corridors also entail multimodal supply chains and alternatives for freight transport through economically relevant hubs and long-distance routes, as well as the integration of multiple transport modes, including highways, railways, and waterways (Panagakos, 2015). In addition to the necessary technology, a prerequisite for green transport corridors is to put in place the relevant agreements and reciprocal recognition

of standards between countries, so greater regional cooperation can play a critical role in their development and operation.

### IDENTIFICATION OF CLIMATE FINANCING MECHANISMS FOR LOW CARBON TRANSPORT

Climate finance is pivotal to the implementation of long-term sustainable and low carbon transport infrastructure policies. Low carbon transport will require both public and private financial support and specialized know-how on the design, operation, and management of risks. Examples of climate finance include grants provided by multilateral funds, market-based and concessional loans from financial institutions, sovereign green bonds issued by national governments, and resources mobilized through carbon trading and carbon taxes (UNDP, 2023). In addition to climate funds, green loans and bonds can also finance low carbon transport investments (SLOCAT, 2021). However, the limited scale of climate finance and the challenges in accessing sustainable financing mechanisms are still constraints for many countries in Asia and the Pacific. In addition, many ESCAP member States require assistance to develop bankable projects with clear definitions of associated costs, benefits and risks.

## B. Framework of Cooperation

The second phase of the Regional Cooperation Mechanism for Low Carbon Transport in Asia and the Pacific will continue to support the development and implementation of the transport and climate change mitigation plans of ESCAP member States, with a focus on the three priority topics described in the preceding section. This will be done through targeted policy dialogues, technical assistance, data and knowledge sharing, benchmarking of best practices, and cooperation on technology development.

Regional technical discussion groups will be designed to enable tailored discussions for countries to further engage in these priority topics and to support the implementation of regional coordinated action, either within existing regional or global agreements, or beyond. ESCAP member States can participate voluntarily in these groups and share ways to align their national low carbon transport targets with broader sustainable development goals. Subregional priorities will also be taken into consideration, especially for countries that have unique characteristics and challenges. For example, special consultations with the Pacific subregion could occur within regional technical discussion groups to ensure that the discussions are relevant for as many ESCAP member States as possible.

Invitations to the regional technical discussion groups will be extended to stakeholders beyond transport ministries, such as representatives of other relevant line ministries, international and regional organizations, non-governmental organizations, academia, multilateral and private financing institutions and the private sector. Members of the discussion groups will also be able to suggest specific topics for more research and policy analysis to further guide the transition to low carbon transport in Asia and the Pacific. Discussion outcomes are expected to be linked to existing regional agreements or initiatives, as well as global initiatives, and will also be presented to intergovernmental processes led by ESCAP. Depending on the needs of the countries, the Regional Cooperation Mechanism on Low Carbon Transport in Asia and the Pacific can provide support to identify gaps in low carbon transport development and sectoral transformation, as well as leverage sources of sustainable financing and investment towards the attainment of these goals.

# IV. CONCLUSIONS

The governance of transport and climate change is a complex challenge that cannot be addressed by global agreements alone. As the impact of transport externalities and climate change varies by country and region, national policies to accelerate mitigation need to cater to the specific priorities and challenges that may not be captured by global initiatives. The outcomes of the subregional consultations and the regional meeting conducted by ESCAP show that countries in Asia and the Pacific have different priorities and challenges than other regions of the world, which reflect the diverse and heterogeneous needs of the region.

Regional cooperation can therefore play an increasingly critical role in accelerating the achievement of low carbon transport development, as well as in supporting the implementation of global agreements such as the Paris Agreement. The ESCAP Regional Cooperation Mechanism on Low Carbon Transport in Asia and the Pacific will not only provide a platform for dialogue on the region's priorities and challenges in transport and climate change processes, but will also mobilize transport stakeholders, especially transport ministries, to engage in such processes. For the next phase, the three topics chosen by member States for further analysis and technical support are 1) the development and implementation of low carbon transport targets and timelines, 2) the establishment of green transport corridors and 3) the identification of climate financing mechanisms for low carbon transport. In this way, the Regional Mechanism can help countries to fill the gaps in the technical, institutional, and financial support needed for the transition to low carbon transport.

Member States of ESCAP have demonstrated their commitment to the Paris Agreement through a variety of low carbon transport policies, ranging from the adoption of electric buses to the development of sustainable maritime connectivity. There are still fundamental transport infrastructure and operational needs to be addressed, either before or while transitioning to low carbon transport, including measures to improve public transport, active mobility, the regulation of freight transport, and energy efficiency. Electric mobility for public transport and two- and three-wheelers should also be encouraged, along with policies to trigger modal shift from private vehicles to public transport and non-motorized modes, and from road freight to more sustainable modes, such as rail transport.

It is increasingly accepted by governments and other stakeholders that the transport sector must play a more active role in mitigating the impact of climate change. As the governance of transport and climate change becomes more inclusive and climate finance systems advance, progress on mitigation efforts will accelerate across all regions. The Regional Cooperation Mechanism on Low Carbon Transport in Asia and the Pacific will continue to support member States in their efforts to connect and align national and regional priorities with global climate action, based on their needs.

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