NDC TRANSPORT INITIATIVE FOR ASIA

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Event Report

Accelerating the Decarbonisation of Transport in Asia and the Pacific

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Accelerating the Decarbonisation of Transport in Asia and the Pacific

Introduction and background

The Asia Pacific region has the fastest growing carbon dioxide (CO_2) emissions globally and transport is the sector that is contributing the most. Policies to reduce emissions from the sector need to be implemented urgently. With continuous economic development, population increase and projected transport demand growth, Asia and the Pacific needs to find its own way of decarbonising the sector. Future Nationally Determined Contributions (NDCs) need to enhance their transport actions and increase ambitions, particularly in the hard-to-abate subsectors, such as freight and non-urban transport. In comparison to other regions, freight transport plays a dominating role in Asia and the Pacific, where heavy duty vehicles account for 35 per cent of transport CO_2 emissions while light duty vehicles account for 27 per cent (ATO Outlook 2022).

It is now well-noted that the CO_2 emission reductions realised due to the COVID-19 pandemic were temporary and did not interrupt the historic trend of growing emissions from transport. In addition, the latest global projections show that current efforts to reduce the carbon footprint of the sector are insufficient and transport emissions have continued to grow (ITF 2023).

To realise emissions reductions, countries in the Asia Pacific region will have to identify their pathways to tackle the challenge of decoupling economic growth and transport emissions. Knowledge exchange between countries and improving collaboration among stakeholders are some ways to strengthen national decarbonisation strategies. The development and implementation of such strategies are supported by international organisations such as the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and GIZ. Over the last few years, GIZ has supported several countries and the regional discourse on pathways to decarbonise transport through the NDC Transport Initiative for Asia, e.g. through the collaboration with Vietnam's Ministry of Transport, strengthening their national transport decarbonisation strategies and creating a regional council of advocates (Council for Decarbonising Transport in Asia). ESCAP adopted a Regional Action Programme for Sustainable Transport Development in Asia and the Pacific (2022–2026), which recognises low carbon transport as of one its objectives and as a result, it includes regular subregional and regional meetings and capacity building workshops to mobilise transport ministries and key stakeholders in the Asia Pacific region to engage in the transport and climate change policy process and relevant dialogues.

As part of those regional activities, a side event at the seventy-ninth session of the Economic and Social Commission for Asia and the Pacific in Bangkok was co-hosted by the Government of Vietnam, GIZ and

ESCAP on 18 May 2023. The aim of the side event was to allow countries to share their national transport decarbonisation strategies and discuss regional cooperation mechanisms to achieve net zero carbon transport.

This brief note summarises the key observations and shares ideas on how to accelerate decarbonising transport action through regional cooperation.

Current country commitments, actions, challenges and opportunities: Vietnam, Thailand, Cambodia and Nepal

Vietnam

Vietnam has set an ambitious economy-wide target of reaching net-zero emissions by 2050, with some key interim targets, such as to stop the construction of new coal-fired power plants by 2030 and start phasing out coal-fired power from 2040 and the goal to reduce methane emissions by 30 per cent by 2030 compared to 2020, including those from transport.

The transport sector has a national target to reduce 37.5 million cumulative tonnes of CO_2 between 2022 and 2030 by improving the efficiency of energy use and accelerating the conversion to electricity use and green energy. By 2050, all vehicles, equipment, and transport infrastructure aim to utilise electricity and green energy.

The achievement of these targets is supported through the Action Programme for transition to green energy and mitigation of carbon dioxide and methane emissions from transport (Decision 876/QD-TTg), which contains very specific targets and measures for different modes of transport for 2030, 2040 and 2050. Up to 2030, the focus in road transport is to promote the manufacture, assembly, import and use of electric motorised road vehicles, including full electrification of new buses, and achieving a 100 per cent use of E5 gasoline. There are also targets for the share of public passenger transport for individual cities by 2030. After 2030, electrification is planned for machinery and equipment for loading and unloading and by 2050 the share in special urban areas is to reach at least 40 per cent.

For rail, the 2050 target is that 100% of vehicles and equipment at the stations be electrified and use green energy with short-term measures including pilots, conversion of station equipment and the development of a roadmap for electrification. For inland waterways, the target and process are similar to rail, with a focus on research and piloting in the short term and 100% use of electricity and green energy by 2050.[1]

A key challenge remains to be the reliance on international support to a) share experiences on legal frameworks and technology and b) put in place mechanisms on public private partnership that support decarbonisation in the sector.

Measures in hard to abate sectors, particularly maritime and aviation, include enhanced research and pilots, which are reflected in targets being set for 'from 2050' onwards instead of 'by 2050'. For maritime transport, there is a focus on improving efficiency and conversion of energy sources in ports in the short-term and reliance on IMO provisions for vessels. For inland shipping, the focus is on electrification and green energy for vessels and in ports. For aviation, the focus is on operational efficiency, electrification of airport ground vehicles and research on sustainable aviation fuel (SAF) in the short-term.

[1] For more information see Summary of Policies for Transport GHG Reduction in View of the Net Zero Emissions Target in Viet Nam: Policy Brief_EN (changing-transport.org)

Thailand

At COP 26, Thailand committed to reach carbon neutrality by 2050 and net zero GHG emissions by 2065. Thailand also pledged to enhance the NDC to reduce GHG emissions by 30-40 per cent in 2030 from the previous target of 20-25 per cent, in order to attain carbon neutrality and net zero goals. This revised long-term low greenhouse gas emissions development strategy (LT-LEDS) lays out climate policies, priorities, and measures that will navigate Thailand towards low GHG emissions and climate-resilient development.

The NDC Action Plan in Transport for 2030 focuses on three pillars: green and safe transport, efficiency and inclusive transport with a target to reduce 42 million tons of CO_2-eq by 2030. The Ministry of Transport is working in collaboration with the Ministry of Industry and the Ministry of Finance. GIZ is supporting the Office of Transport Policy and Planning (OTP) in the development of the revised NDC Action Plan, while ESCAP has also supported Thailand in its transition to electric buses.

In urban areas, the decarbonisation focus is on electric buses. For inter-city transport, the focus is on rail and double track infrastructure to encourage a modal shift from road to rail transport. Thailand also aims to increase the number of electric vehicles (EVs) by 30 per cent by 2030 and is collaborating with the private sector to set up charging stations. It has tax deductions such as excise tax for EVs and a carbon tax on internal combustion engine (ICE) vehicles.

The need for regional, international and private sector cooperation is recognised in addition to the efforts made by the public sector.

Cambodia

Cambodia outlined its economy-wide journey towards carbon neutrality by 2050 in its Long-Term Strategy for Carbon Neutrality (LTS4CN). Achieving this will require the forestry and other land use sector (FOLU) to develop from a net emitter to a net sink after 2030.

Targets for the transport sector specified in the LTS4CN include a 70 per cent penetration rate of electric motorcycles, 40 per cent for cars and urban buses by 2050, a 30 per cent share of public transport in urban areas, 80 per cent of CNG interregional buses and trucks as well as increased fuel efficiency of vehicles.

Activities to implement these targets include the recent development of a draft EV policy for Cambodia, supported by ESCAP, a Roadmap for the Development of an Electric Vehicle Charging Stations Network in Cambodia as well as first installations of charging infrastructure in some provinces, and support for vehicle purchases through reduced import taxes. The latter already resulted in an tenfold increase in registrations of EVs in 2022 compared to 2021, reaching more than 700 vehicles, and fivefold increase in the first months of 2023 compared to 2022. Although total numbers remain low, the development shows the effectiveness of existing EV policies.

Many of the ongoing activities are supported by international and regional partners, while future action will require additional cooperation. For example, ESCAP has facilitated the formulation of EV and road safety policies for Cambodia; UNDP has developed the EV fast-charging road map and provided charging machines that have already been installed in various provinces in Cambodia; the World Bank has also assisted the development of an EV road map; GIZ has introduced a traffic management system and built capacity; China has helped improve Cambodia's vehicle registration, technical inspection, modernization strategy plan, and road safety along the ASEAN highway; and the Global Green Growth Institute (GGGI) has

implemented an e-bus project in the Siem Reap province. Further challenges arise from combatting congestion and enhancing road safety at the same time as reducing GHG emissions. Range anxiety for EVs is still high in the country, owing to electricity shortages as well as the low number of charging points currently available. Regional partners could support the expansion of the charging infrastructure, along with improving the public transport system to increase ridership.

Nepal

Nepal aims to increase clean energy generation to 15,000 MW to ensure that 15 per cent of its total energy demand is met by clean energy sources. By 2025, EVs should account for 25 per cent of all private passenger vehicle sales (including two-wheelers) and 20 per cent of all four-wheeler public passenger vehicle sales (excluding electric rickshaws and electric three-wheelers). By 2030, it aims to increase EV sales to 90 per cent of all private passenger vehicle sales (including two-wheelers) and 60 per cent of all four-wheeler public passenger vehicle sales (excluding electric-rickshaws and electric three-wheelers). Nepal also aims to develop a 200-kilometer electric rail network by 2030 to support public transport and mass transport of goods.

The Ministry of Physical Infrastructure and Transport of Nepal has amended previous provisions to promote low carbon transition, with a tentative three years' permission to allow conventional vehicles to be converted into "environment-friendly and energy-efficient" vehicles, while the Department of Transport Management has announced a ban on vehicles older than 20 years. In addition, the excess hydroelectric energy generated could be used towards the energy requirements of some electric vehicles, creating net zero carbon transport.

Nepal would appreciate regional collaboration for accelerating transport decarbonisation, especially towards green freight and logistics, including maintenance, operation, and monitoring emissions of less polluting vehicles; generation, transmission, and use of hydroelectricity for development of regional electric rail network and investment in the research and development and manufacturing facilities of EVs.

Pathways to accelerate action

The side event showed that countries in Asia are committed to reduce CO_2 emissions from the transport sector as part of their NDCs and national strategies. With a growing number setting sectoral targets and targets for specific action, countries and the responsible line ministries will hold themselves accountable for their transport related decarbonisation strategies – particularly in countries like Vietnam, where the sectoral targets are embedded in national legislation. While sectoral targets will help to enhance transport specific decarbonisation policies within the countries, there is currently no regional mechanism to hold Asian countries accountable.

At the same time, it is recognised that actions are required for all transport modes and types of transport, particularly for the "hard to abate" sectors, such as freight, increased policy action and industry commitments are needed. Countries are aware of the enormous scale of the challenge and have to find solutions that will ensure a just transition, that provides affordable, clean, sustainable mobility opportunities for all inhabitants without creating social inequality or economic hardship on different social groups.

From the perspective of the **Asian Development Bank (ADB)**, regional cooperation can reduce the cost of production and affordability of EVs. In Southeast Asia, countries share a common corridor, and it is

important to harmonise EV charging facilities. The use of FCEVs will affect the design of the Asian Highway Corridor. Expansion of grid network and transmission lines alongside road networks to supply EV charging facilities are needed. These call for cross-cutting solutions with energy and climate ministries and agencies and public and private partnerships. Supply chain and logistics are also important as globalisation implies that many countries are involved in the production of the EVs.

Regional collaboration to better share experiences between countries can be one pillar to enhance action on decarbonising transport. Institutions such as ESCAP with its long-term commitment to and existing intergovernmental platforms for regional action is one example for such a collaboration framework.

Other international partners such as GIZ, with its technical assistance and capacity development activities, are committed to further strengthen their efforts to work with countries in Asia and the Pacific to enhance their national transport strategies.

Based on the discussion outputs from the side event, fundamentals for a successful decarbonisation of the transport sector in the Asia Pacific region are as follows.

- A **long-term vision**, combined with a clear and stable policy framework, more technical expertise and financing opportunities in each country;
- Active **exchange formats** to enable knowledge sharing and learning from peers with similar challenges in the region and to maximise synergies from joint action and regional solutions;
- A close partnership with international partners who commit to **long-term support**.

International Climate Initiative IKI)

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