

CLIMATE ACTION PATHWAY **TRANSPORT**

Executive Summary

November 2019

Vision statement

By 2050 Transport is decarbonised by shifting to a more diverse range of modes and vehicle technologies for both passenger and freight movement. The shifts which will be done in a phased manner over a number of milestones, including higher market shares of low- and zero-emission vehicles (including electric and other vehicle technologies), combined with shared mobility services (provided that they effectively displace more energy- and carbon-intensive transport modes), as well as the use of low- and zero-carbon fuels. Walking, cycling and other forms of light mobility, along with existing and novel forms of public transport, account for large shares of urban mobility thanks to significant changes in behavior. The latter are supported by the integration of land use and transport planning that has reduced per-capita travel distance. Car ownership decreases significantly in urban areas, triggered by the implementation of economic instruments and regulations. New and existing transport infrastructures have been made resilient to the impacts of climate change to at least 2100, in line with projections, and are more resilient to extreme weather events and other forms of disruption. Maintenance is prioritised to maximise operational resilience; extreme weather warning systems and contingency plans are in place; and flexible and adaptive infrastructure allows modification as conditions change. Monitoring systems and effective data management inform timely and effective management. Interdependencies are understood and addressed to reduce exposure. Embedded system level resilience supports a smooth transition to another mode if conditions preclude use of the intended mode. Particularly vulnerable communities benefit from appropriate capacity-building, as well as access to finance and technology for climate change adaptation and resilience building.

Society is thriving due to the improved efficiency and inclusivity of transport systems, which have not only increased mobility and accessibility, but has also decreased road fatalities, injuries and local air pollution and increased physical activity due to non-motorised transport. Optimised supply chain networks have improved the efficiency of freight transport. Institutional, legal and regulatory frameworks are in place to drive sustainable and climate-resilient mobility technologies and generate outcome-oriented investment and incentives.



Milestones towards 2050

By 2020

- Research and Development for low cost climate resilient transport systems, including infrastructure and vehicles is expanding.
- Regional and global roadmaps for decarbonising transport systems are created.

By 2030

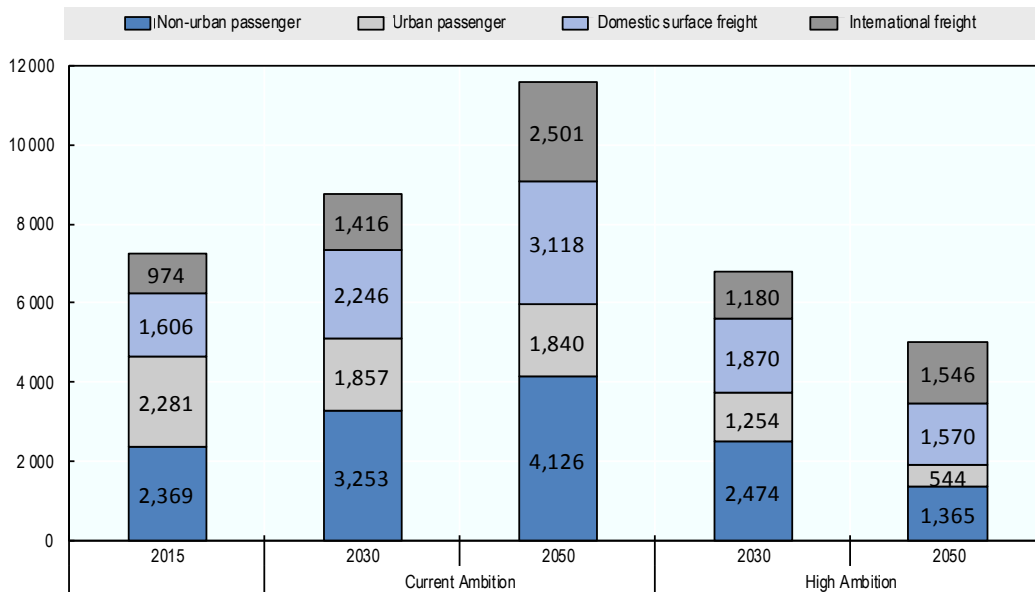
- Enabling environment is put in place, including the harmonisation of standards and implementation of a wide range of market based instruments to accelerate transition towards low carbon climate resilient transport.
- Outcome-oriented investment and incentives are implemented.

By 2050

- Transition to low-carbon climate-resilient transport infrastructure based on the "avoid, shift and improve" approach is completed.
 - Climate-resilience of all critical transport infrastructure assets to (at least) 2100 is in line with projections.
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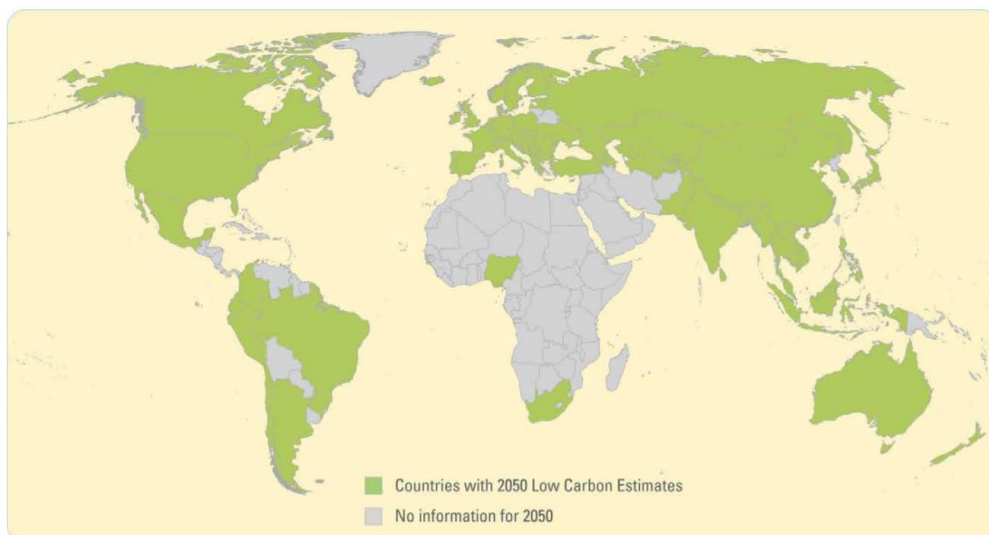
Facts & figures

Figure 1. Projections of CO₂ emissions (million tonnes) by sector and scenario for passenger and freight movements.



ITF Transport Outlook 2019 - © OECD 2019

Figure 2



Note. Globally, only about 42 per cent of countries that have pledged to reduce emissions in 2015 have carried out long-term low-carbon transport emission modeling. These countries account for 85 percent of transport CO₂ emissions, and thus implementation of low-carbon transport measures in these countries holds significant mitigation potential.

Source: SLoCaT (2018). Transport and Climate Change Global Status Report 2018. Available at: <http://slocat.net/tcc-gsr>.

Progress

- Increased number of cities and regions with a comprehensive sustainable urban mobility plan that encompasses all modes for passenger and freight transport.
- Increased measures that will encourage rapid adoption of advanced vehicle technologies for passenger and freight transport for all modes.
- Increased inclusion of climate adaptation and resilience strategies in transport infrastructure planning processes and investment decision making.
- Increased cross-sectoral collaboration and partnership.

Climate Action Table

This summary should be read in combination with the corresponding Climate Action Table for this area that outlines concrete actions for 2020, 2030 and 2050 with respect to policies, finance and investment, technology and innovation, business and services and civil society towards fully implementing the Paris Agreement.

Contributions

This Climate Action Pathway was developed under leadership of the High-Level Champions and through the Marrakech Partnership for Global Climate Action. It was inspired by the work of the sustainable, low transport carbon community conducted over the past years. The framework of actions was initially guided by the Global Macro Roadmap (GMR¹) published by Paris Process on Mobility and Climate (PPMC) in 2016 and 2017 as a foundation for implementation of the Paris Agreement and the Sustainable Development Goals (SDGs) in the transport sector. The GMR proposes a phased action process covering a 2020-2050+ timeline with a balanced package of actions to avoid unnecessary motorised trips, shift transport trips to more efficient modes, and improve transport vehicles and energy sources.

The action pathway was further refined by the significant studies and research conducted by the International Association of Public Transport, International Transport Forum, International Union of Railways and SLoCaT-Partnership on Sustainable, Low Carbon Transport, with contributions from FIA Foundation, PIANC- Navigating a Changing Climate Initiative, UNCTAD and UN-Habitat.

¹ Paris Process on Mobility and Climate (2017) A Global Macro Roadmap Outlining an Actionable Vision Towards Decarbonized, Resilient Transport. [Online] <http://www.ppmc-transport.org/wp-content/uploads/2016/04/GMR2017.pdf> (accessed 28 October 2019).