



PARIS PROCESS
ON MOBILITY AND CLIMATE

A joint initiative by



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KATOWICE COMES THROUGH IN THE CLUTCH, WITH LOW-CARBON TRANSPORT ESSENTIAL FOR AMBITION AND IMPLEMENTATION

FINAL REPORT



PARTNERSHIP ON SUSTAINABLE, LOW CARBON TRANSPORT (SLoCaT)

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List of Abbreviations

1.5DS	1.5 Degree Celsius Scenario
BAU	Business as Usual
BMU	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
BMZ	Federal Ministry for Economic Cooperation and Development of Germany
CBI	Climate Bonds Initiative
CDP	Carbon Disclosure Project
COP	Conference of the Parties (to the United Nations Framework Convention on Climate Change)
CTCN	Climate Technology Centre and Network
EDP	Energias de Portugal
EIB	European Investment Bank
EU	European Union
GCA	Global Climate Action
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
ICAO	International Civil Aviation Organisation
ICLEI	International Council for Local Environmental Initiatives
IDDDRI	Institute for Sustainable Development and International Relations
IEA	International Energy Agency
IISD	International Institute for Sustainable Development
IMO	International Maritime Organisation
IPCC	Intergovernmental Panel on Climate Change
IsDB	Islamic Development Bank
ITDP	Institute for Transportation and Development Policy
ITF	International Transport Forum
LGMA	Local Governments and Municipal Authorities
MPGCA	Marrakech Partnership for Global Climate Action
NDC	Nationally Determined Contribution
NGO	Non-governmental organization
NUMP	National urban mobility plan
OECD	Organisation for Economic Co-operation and Development
PIANC	World Association for Waterborne Transport Infrastructure
PPMC	Paris Process on Mobility and Climate
REN21	Renewable Energy Policy Network for the 21st Century
SDG	Sustainable Development Goal
SLoCaT	Partnership on Sustainable Low Carbon Transport
SUMP	Sustainable urban mobility plans
TCC-GSR	Transport and Climate Change 2018 Global Status Report
TCC-GSR	Transport and Climate Change Global Status Report
TDA	Transport Decarbonisation Alliance
TUMI	Transforming Urban Mobility Initiative
UIC	International Union of Railways
UITP	International Association of Public Transport
UK	United Kingdom
UN	United Nations
UN ECLAC	United Nations Economic Commission for Latin America and the Caribbean
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
VNR	Voluntary National Review
WHO	World Health Organization
WRI	World Resources Institute
WWF	World Wide Fund for Nature



Opening Perspectives

At the 21st United Nations (UN) Conference of the Parties (COP21) to the Framework Convention on Climate Change in 2015, UN member states achieved political consensus in crafting the [Paris Agreement](#), through a bottom-up process of defining national contributions to meet the top-down science-based temperature and emission reduction targets established by the Intergovernmental Panel on Climate Change (IPCC) and others. At COP24 in Katowice, Poland, it was more apparent than ever that this political will must be maintained and coupled with heightened implementation ambition if we are to meet the ambitious targets of the Paris Agreement and keep the planet and our livelihoods on course for a stable climate future.

To promote understanding among climate action stakeholders, the [Talanoa Dialogue](#) was launched by the Fijian presidency at COP23 Bonn. The Talanoa Dialogue posed three critical questions to frame the process of raising ambition on climate change mitigation and adaptation: *Where are we? Where do*

we want to go? and *How do we get there?* The Dialogue continued at the mid-year session in Bonn in May 2018, with [storytelling methods](#) aimed to create greater understanding and awareness about each country's challenges and ambitions.

Deliberations on the [Paris Agreement Work Programme](#) (known informally as the “[Paris Rulebook](#)”) at the May 2018 session led to a follow-up session in Bangkok in September 2018. Uneven progress there resulted in a 300 plus-page draft document, which streamlined outstanding issues into one cohesive report. Key obstacles still remained to be solved going into COP24, including key implementation pathways for differentiation, transparency, and finance for transport and other sectors. In light of COP24 negotiations, a key question is how and whether the Talanoa Dialogue will continue to sustain ambition and trigger meaningful action.

Key Messages

This summary of the transport dimension at COP24 is structured around the COP24 [key messages](#) of the [Paris Process on Mobility and Climate \(PPMC\)](#), a joint initiative of [Movin' On by Michelin](#) and the [Partnership on Sustainable, Low Carbon Transport \(SLoCaT\)](#) to focus efforts of the global transport community to achieve Paris targets.

Key Message 1



Net decarbonization of the transport sector by 2050 is possible, but will require an immediate and concerted turnaround of global policy action.

It was observed at COP24 that the Paris Rulebook has the potential to raise ambition in at least four ways: by resolving lingering political issues from Paris; by balancing needs for a binding guidance with flexible application to maximize participation and effectiveness; by enabling a dynamic agreement with strong review mechanisms and renewal timelines; and by addressing relevant issues in the current round of negotiations ([IISD](#)). Such breakthroughs would create a firmer foundation for robust policy action on sustainable transport and in supporting sectors.

1.1 According to the IPCC Special Report, a 1.5°C pathway for transport is possible with strengthened policy measures, increased mitigation investments, accelerated technological innovation and behaviour change.

On the eve of COP24 negotiations, the scientific community underlined in the highly-anticipated [IPCC Special Report on Global Warming of 1.5 Degrees Celsius](#) that **more climate action** is still needed. Science demonstrates that the 1.5 degrees Celsius target is not yet out of reach, but at current emission levels we will likely reach a global warming of 1.5 degrees Celsius and more by 2030. Various emission reduction pathways suggest that significant reductions must take place soon, including in all transport sub-sectors.

The IPCC 1.5 Special Report was a key point of contention at COP24. Four countries - Kuwait, Russia, Saudi Arabia, and the United States - only wanted to “note” the report, while all other countries wanted to “welcome” it. While this may seem like a minor linguistic difference, the politics behind it are significant, showing that some countries, often highly fossil-fuel dependent, intend to prioritize political interests above the science-based findings of the IPCC. In the [final decision text](#), countries agreed on welcoming the “timely completion” of the report and invited countries to “make use of the information contained in the report... in their discussions.”

Reinforcing this urgency, this year’s [Emissions Gap Report by the UN Environment Programme \(UNEP\)](#) shows that **emissions must peak by 2020** to have a good chance to keep warming between 1.5 to 2 degrees. However, the submitted Nationally Determined Contributions (NDCs) and the development of the Paris Rulebook have yet to fully address this goal with the same level of ambition in climate action.

To highlight the transport sector’s potential to make a proportional contribution to Paris Agreement targets, SLoCaT launched the [2018 Transport and Climate](#)

[Change Global Status Report \(TCC-GSR\)](#) at COP24 with the participation of a primary funder, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and the report's special advisor, Renewable Energy Policy Network for the 21st Century (REN21). The TCC-GSR focuses on emission trends and policy measures in the transport sector. It is a resource to support policy-makers and the private sector in efforts to raise ambition on climate mitigation and adaptation in sustainable transport. Selected outputs of the TCC-GSR are featured in this summary at the end of each key message.

[It is estimated](#) that global **transport emissions will need to be reduced to 2 to 3 Gt CO₂ per year by 2050** to meet Paris Agreement mitigation targets. All three reports highlight the significance of transport decarbonisation and the possibilities to redefine transport in a more sustainable way. **Reaching this reduction target is possible with collective action** and will require balanced implementation of low-carbon mitigation policies that **avoid** (or reduce) the need for transport trips; promote a **shift** toward more efficient travel modes; and **improve** the performance of vehicles and fuels.

Science-based targets were emphasised at COP24 in an event organised by the French Ministry for the Ecological and Inclusive Transition, the Institute for Sustainable Development and International Relations (IDDRI) and the Transport Decarbonisation Alliance (TDA), with participation from the Carbon Disclosure Project (CDP), World Resources Institute (WRI) Ross Center for Sustainable Cities, World Wide Fund for Nature (WWF), and the United Nations Global Compact. During the event, IDDRI presented progress on the [Transport Decarbonization Toolbox](#), which is supporting implementation pathways for meeting science-based targets within the transport sector.

1.2 Low carbon, cost-effective solutions for roadway, rail, air and maritime passenger and freight transport modes are available and have been tested at scale across regions of the globe.



COP24 provided a platform to showcase and debate the trends of all transport sub-sectors with nearly [50 different transport-related events](#) across the two weeks in Katowice. While a majority of the transport events focused on passenger and freight roadway transport, it also is important to highlight the events that focused on the potential to decarbonise other transport sub-sectors.

Shipping and aviation remain contested topics during climate negotiations of the United Nations Framework Convention on Climate Change (UNFCCC). Climate action in these sectors is essential to meet the long-term goals of the Paris Agreement, but official UN negotiations take place through the International Civil Aviation Organisation ([ICAO](#)) and the International Maritime Organisation ([IMO](#)), whose current agreements are generally perceived as insufficient to meet the transformational innovation needed in these sub-sectors. [International aviation](#) is still exempt from fuel taxation; the sector obtains subsidies for aircraft production and design, and in general has experienced highly limited efforts to significantly reduce emissions.

A cross-cutting Global Climate Action (GCA) roundtable organised by the Ocean and Coastal Zones and Transport Thematic Groups (with the latter co-facilitated by the International Transport Forum (ITF) and SLoCaT Partnership on behalf of PPMC, as Transport Thematic Group Focal Points) explored the nexus between global maritime networks and mitigation and resilience action plans for ports. Without additional policy measures, carbon emissions

from global shipping are projected to increase 23% by 2035 compared to 2015 (ITF). The roundtable outcome document emphasised that ports can reduce shipping emissions by enforcing speed limits, providing infrastructure for alternative fuels, and creating incentives for operating cleaner ships.

The shipping sector still lacks strong standards, and more governance is needed in this area to bring the public and private sectors together. The recent (IMO) [strategy on emissions reduction](#) aims to address underlying technological and trading challenges and, consequently, reduce emissions in the sector by at least 50% by 2050. Electricity and wind power can play a role in increasing shipping efficiency; China, [for example](#), deployed its first all-electric cargo ship in 2017, while rotor sails can decrease fuel consumption up to 10% annually (TCC-GSR).

1.3 Concerted national, regional and urban policy frameworks together with private sector action (through the Transport Decarbonisation Alliance and related initiatives) are required to avoid unnecessary trips, shift to more efficient modes, and improve vehicles and energy sources.



Given the international nature of the UNFCCC, negotiations under its aegis are driven by national-level governments that are Parties to the Convention and hence respond to a “UN member state-driven process.” However, in recent years, there has been increasing engagement of [non-state actors](#) within the process.

COP21 marked a breakthrough to this regard and consolidated the recognition of key sectors, including transport.

Launched at COP22, the [Marrakech Partnership for Global Climate Action \(MPGCA\) Transport Initiatives](#) has been developed by non-state actors and offers solutions tested at scale in all passenger and freight transport sub-sectors to help increase ambition and accelerate the implementation of NDCs. There were 22 MPGCA Transport Initiatives as of December 2018, as described in a recent [Overview of Progress Report \(2018\)](#) produced by the SLoCaT Partnership Secretariat. At COP24, the transport theme of the GCA track was led by ITF and SLoCaT as joint focal points, with key contributions from the Institute for Transportation and Development Policy (ITDP) (see further details under Key Message 6.1).

The [TDA](#) is an initiative that brings together countries, cities/regions and companies - the “3 Cs” - as the major drivers in sustainable, low carbon mobility. It was launched in 2018 as a unique collaboration to accelerate the worldwide transformation of the transport sector towards a net-zero emission mobility system before 2050. The joint action of countries, cities/regions and companies is a reality in the transport community that should be further enabled by legal and institutional frameworks from the global to the national and local levels.

The TDA was well represented at a number of key transport events at COP24. For example, José Mendes, Vice Minister for Environment of Portugal and Chair of the TDA Steering Committee, represented the alliance at the [High-Level E-Mobility Summit](#) and [Transport Day](#), and held a press conference with Violeta Bulc, European Commissioner for Transport. The TDA also co-organized subsequent events at the French Pavilion, with the French Ministry for the Ecological and Inclusive Transition (see Key Message 1.1); as well as at the Benelux Pavilion (with the Ministry of Infrastructure and Water Management of the Netherlands, and the participation from Luxembourg, see Key Message 6.2). It is worth noting that the other TDA countries which complete the current country

membership base to the TDA will be holding prominent roles next year: Finland will be heading the rotating EU Presidency in the second half of 2019, and Costa Rica will host a preliminary session to COP25 in late 2019.

The TDA complements the [Decarbonising Transport](#) initiative led by ITF-OECD, which promotes carbon-neutral mobility and provides decision makers with tools to select transport mitigation measures to help deliver on their climate commitments. The initiative was showcased at COP24 as a platform to foster inclusive policy dialogue in an event organised by ITF, the International Union of Railways (UIC) and the International Association of Public Transport (UITP), which described policy pathways to reduce emissions from urban transport, road freight and maritime transport.

[Transport Day 2018](#) was organised by the European Commission’s [CIVITAS Initiative](#) and [SLoCaT](#) on behalf of the PPMC and hosted by the City of Katowice during

the first week of COP24. The event focused on urban mobility solutions and recognised the urgent need to raise mitigation and resilience ambition in all areas of transport. Sessions addressed how national governments can support the potential of cities for successful sustainable urban mobility action (e.g. national legislation, common planning tools, empowering cities, funding to local projects).

The [Transport and Climate Change 2018 Global Status Report](#) (TCC-GSR) is a data-driven report led by the SLoCaT Partnership which illustrates global trends in transport demand, emissions and mitigation pathways, and compiles recent examples of policy targets and measures that contribute to transport sector decarbonisation. Facts and figures from the TCC-GSR are presented after each key message in this summary report.

Low-Carbon Transport Facts and Figures: Key Message 1

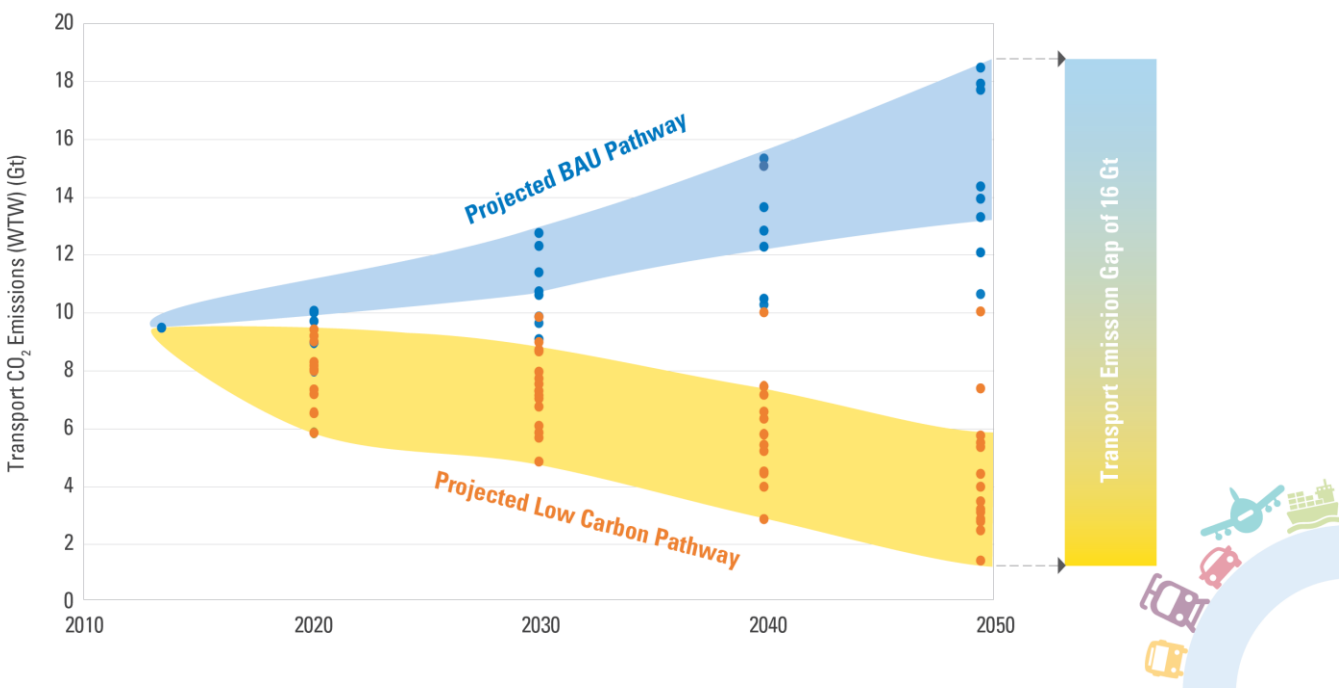


Figure 1: Projected Transport CO2 Emissions: Business as Usual and Low Carbon Pathways (2010 to 2050) (Source: TCC-GSR 2018)

Recent global studies assert that the transport sector can provide a significant contribution to economy-wide decarbonisation by 2050 by if following a low-carbon pathway.

Key Message 2



Sustainable transport is necessary for countries to deliver on their NDCs

Nationally-determined contributions (NDCs) are a primary channel for countries to communicate intended actions to reduce emissions and increase

resilience in the UNFCCC process. COP24 focused on producing a more uniform and mitigation-centric NDC guidance favoured by developed countries while spelling out improved processes for financial support for developing countries. Agreement centred around a common set of elements to be applied to each country based on the type of its NDC (e.g. absolute emission reduction targets vs. relative emission intensity targets) as opposed to separate sets of rules for developed and developing countries (IISD). These outcomes have the potential to increase transport measures across global regions.

2.1 More specific and ambitious targets for reducing carbon emissions from transport are needed in NDCs to achieve full mitigation potential of the sector, which produces roughly 25% of energy related GHG emissions.

The SLoCaT Partnership Secretariat has conducted an [analysis of NDCs in the transport sector](#), which shows

that among the 160 NDCs representing 187 countries submitted as of August 2016, more than three quarters explicitly identify the transport sector as a mitigation source, and more than 63% of NDCs propose transport sector mitigation measures. Yet details are few and ambition remains insufficient to make a proportional contribution to Paris Agreement targets. Several countries discussed indirect transport mitigation targets as part of their plans for updated NDCs both prior to and during COP24:

- **Argentina:** Strengthened NDC targets since the adoption of Paris Agreement (one of a few countries to do so) and [adopted a carbon tax](#) covering all fossil fuels sold.
- **Marshall Islands:** Established a target to reduce transport emissions 27% below BAU by 2030, leading to ambitious pledges on transport emissions targets in NDCs for other Pacific nations (see Key message 3.2).
- **Portugal:** Developed a [country-wide plan](#) to achieve carbon neutrality by 2050, including 25 objectives for transport.
- **Uruguay:** Detailed specific [conditional and unconditional targets](#) for decarbonizing transport within broader energy reductions.
- **Vietnam:** Approved 10 strategies in a master urban mobility plan [to encourage implementation in large cities](#) in Vietnam to reach national targets.

2.2 Clear roadmaps for net decarbonization of the transport sector by 2050 must be developed (e.g. Transport Decarbonisation Alliance “fast track” approach, sustainable urban mobility plans) and synchronized at all tiers of government (i.e. local, provincial, national, regional, global).

In the Paris Agreement, it is stipulated under [Article 4](#) that “all Parties should strive to formulate and communicate long-term low greenhouse gas emission

development strategies". It also stated that Parties are invited to communicate these strategies by 2020. Up to today, [the registry of the UNFCCC](#) shows that only Benin, Canada, Czech Republic, France, Germany, Mexico, Republic of the Marshall Islands, the United Kingdom (UK), United States, and Ukraine have submitted strategies.

In addition to negotiations on the Paris Rulebook, 2018 Talanoa Dialogue activities on the status of the NDCs are important steps to investigate whether long-term Paris targets are on track. PPMC made a [Talanoa Dialogue submission](#) in April to highlight the critical role of the transport sector in achieving Paris Agreement targets. In November 2018, during the [Cities Conference II](#) in Santiago, Chile by the United Nations Economic Commission for Latin America and the Caribbean (UN ECLAC), the Transforming Urban Mobility Initiative ([TUMI](#)), with SLoCaT and its members [Despacio](#) and [CAF–Development Bank of Latin America](#) co-organized a workshop, "Talanoa Dialogue on Urban Mobility in Latin America and the Caribbean." Its aim was to bring global knowledge to link national-level policies with implementable local solutions.

To scale up action to meet the Paris objectives and support the Talanoa Dialogue, the PPMC has crafted a [Global Macro Roadmap](#) towards achieving a net-zero emissions transport sector by 2060 to 2080. This roadmap aims to give a realistic vision, with an operational focus for each segment of the transport sector (i.e., people and freight; road, railway, aviation, waterborne; urban and rural transport). It is driven by the new sustainable and inclusive growth opportunities called for by the Sustainable Development Goals (SDGs).

At COP24 the Transport Decarbonisation Alliance (TDA) published the [TDA Manifesto](#) on how to reach net zero emission mobility before 2050 through uniting countries, cities/regions and companies. The manifesto was developed under the leadership of Patrick Oliva, PPMC co-founder, with the support of the Climate Change & Sustainability team at EY. It draws strategic

imperatives and pillars on how to approach the transformation.



2.3 Countries must implement policies required for long-term low carbon transformation of transport systems, including coordinated planning, rational pricing of road space and fuels, and technology deployment.

One of the elements to reach the goals outlined in the NDCs is the use of technology. Together with capacity building and financial support, technology transfer is often requested by developing countries to achieve proposed [conditional contributions](#). Via the operational arm of the UNFCCC Technology Mechanism, countries can make use of the Climate Technology Centre and Network (CTCN), which provides support in the form of technical expertise.

COP24 kicked off with the [Declaration on Electric Mobility](#), announced by the Polish Presidency together with the UN Secretary-General Antonio Guterres and joined by 38 countries from five continents, as well as international organisations representing over 1500 cities and regions and 1200 companies. The agreement focused on developing the e-mobility sector through scientific cooperation at the global and local level. Mateusz Morawiecki, Prime Minister of Poland, announced an allocation of nearly USD 3 billion to develop the e-mobility sector, along with the first Electromobility Forum, which is to be held in Poland in late 2019. Civil society urged the COP Presidency to

include spatial planning, green public procurement, and expansion of public and non-motorised transport in the Declaration for a more balanced approach to mobility.

A [Transport & Environment Report](#) released during COP24 presents four proposals on how carbon taxes on aviation tickets taxes can be used to internalise external costs. In other efforts to increase aviation efficiency, aircraft manufacturers, airlines and airports are incorporating new fuel technologies such as biofuels to reduce emissions (SLoCaT TCC-GSR).

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Low-Carbon Transport Facts and Figures: Key Message 2

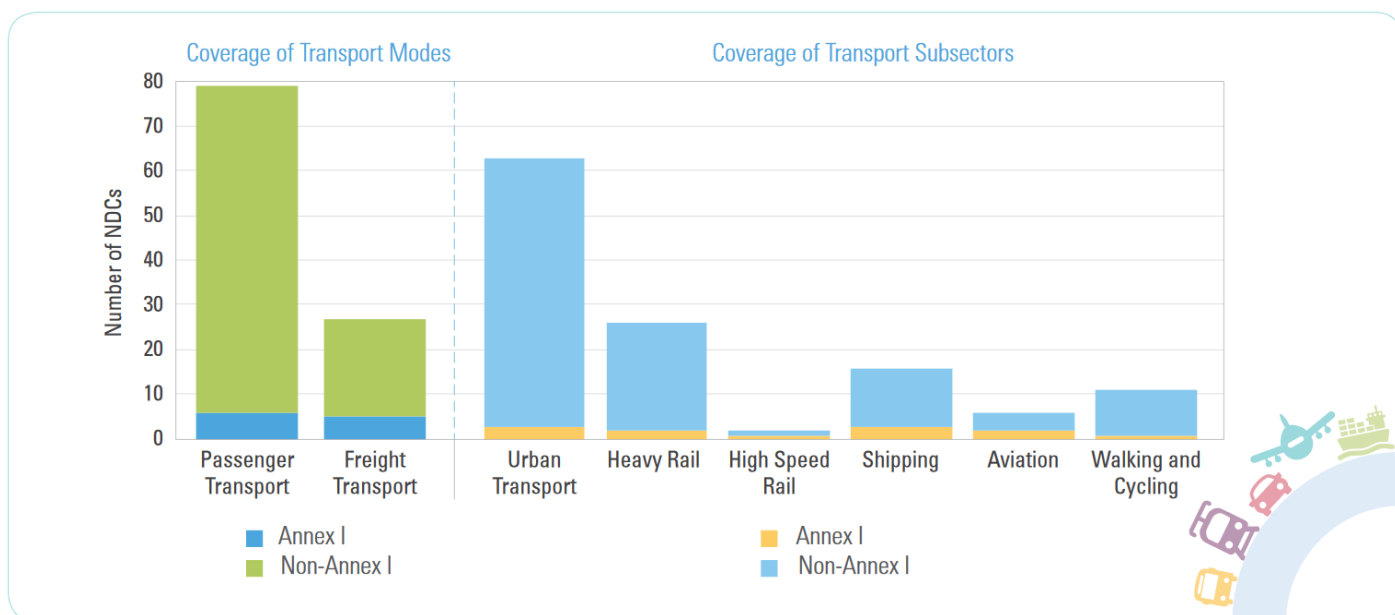


Figure 2: Number of NDCs Highlighting Modes and Sub-Sectors. (Source: TCC-GSR 2018)

Passenger transport is well-represented in the 166 submitted NDCs representing 193 countries, it is included in 64% of those that highlight transport. Urban transport measures are mentioned in 38% of NDCs, while other areas receive less attention. Freight transport contributes around 40% of emissions but appears in only 21% of the NDCs with transport measures (SLoCaT).

Key Message 3



Safe, low carbon, efficient and affordable mobility for all is essential to human development and must be enabled in all sustainable development policies

Transport is more than a means of moving from here to there; it is an essential link to provide access to goods and services, and thus to achieve development goals, including economic development, resilience to climate impacts and adaptation to inevitable changes. A COP24 decision invited parties and relevant entities working on national adaptation goals and indicators to strengthen linkages to monitoring systems of the [SDGs](#) and the [Sendai Framework for Disaster Risk Reduction](#). Nevertheless, many COP24 participants hoped for greater determination to keep global warming below 1.5°C, which is considered a question of survival - and not mere quality of life - by many small island states and other vulnerable countries ([IISD](#)).

3.1 Action on low carbon transport supports eight of 17 Sustainable Development Goals and accelerates progress on the New Urban Agenda and other global agreements, with benefits of improved road safety, urban access and air quality.

Transport climate actions can be more effective if they also yield a broader set of benefits beyond emission reductions and focus on synergies with other human

development goals. UNFCCC negotiations and the SDG review mechanisms are two separate processes, and officially linking both agendas is sensitive due to the different legal natures of each process. Nevertheless, objectives overlap in both agendas and actors understand that they cannot be pursued in silos. The [NDC Explorer](#) from the [German Development Institute](#) shows how both agendas overlap in each country.

SLoCaT has been conducting transport-focused [analyses](#) on the Voluntary National Reviews (VNRs) submitted each year by UN member states to mark progress toward the SDGs. Results of these analyses show that gaps remain in reporting on transport and its contribution to sustainable development. VNRs can create a more comprehensive vision of sustainable transport development if countries include specific policy examples, case studies, and quantified targets. SLoCaT is engaging in further research with the **Islamic Development Bank (IsDB)** to assess ways to enhance the transport dimension of the SDGs and Voluntary National Reviews (VNRs).

Sustainable transport is also an essential element in achieving the goals of the [New Urban Agenda](#) adopted at the [Habitat III](#) conference, as noted in messages by [ICLEI](#) and the [PPMC](#).

At COP24, the **African Development Bank** described a capacity building project in five African cities to support transport emissions monitoring and mapping. Actions of this kind can have significant co-benefits in reducing the 176,000 deaths per year in Africa (out of 4.1 million worldwide) due to outdoor air pollution, with 90% of these deaths due to urban air pollution from vehicles (C40/World Health Organization (WHO)). As Karol Góbcynski (IKEA/EV100) summed up in the GCA Action Event (see Key Message 6.1), “Without a zero-emission target in the transport sector, it is impossible to improve quality of life.”

3.2 National mobility policies can play a strong role in reducing costs to accelerate sustainable transport, and city and private sector initiatives can drive behaviour change if enabled and incentivized by all levels of government.



The weight of the Paris Agreement is embodied in the contents of the NDCs, as nationally established commitments to climate action. At COP24, the [EUROCLIMA+](#) Programme presented concrete examples of how it is supporting development of national urban mobility plans (NUMPs) and sustainable urban mobility plans (SUMPs) in countries such as Brazil, Chile and the Dominican Republic. In a final plenary of COP24, Mexico stressed how national policies can shape action on transport with essential contributions of business, civil society, and sub-national governments.

The [IsDB-SLoCaT Report “Low-Carbon Transport for Development: Recommendations for IsDB Member Countries”](#) was released at COP24 with participation from GIZ, and among others the Governments of Bangladesh and Viet Nam, demonstrating the necessary connection between NDCs and sustainable development benefits. The report highlights the role of multilateral development banks in providing combined guidance on climate and development imperatives in the transport sector and the potential of South-South cooperation in increasing development benefits.

The [Pacific Islands Transport Forum](#), hosted in November 2018 by the COP23 Fijian Secretariat, the

University of the South Pacific, and the government of the Marshall Islands, adopted the [Laucala Declaration](#), which includes ambitious pledges on transport targets in NDCs for other Pacific nations. A COP24 event explored ways in which the Pacific region could overcome technological limitations to green alternatives in the transport sector - which accounts for more than 60% of regional GHG emissions - so as to ensure proportional contribution to a 1.5DS.

3.3 Improving access to economic, social and cultural opportunities with low-cost, low-emission transport options across urban-rural linkages can deliver social and economic progress, especially for marginalized groups.

During the COP24 UNFCCC Action Event on Transport, ITF provided data showing that cities such as Auckland, Dublin and Helsinki can achieve equivalent mobility levels with only 3% of their current car fleets, creating potential for significant positive impacts to air quality and green space. Also at COP24, Japan’s [EcoMo Foundation](#) described the potential of sustainable transport to increase quality of life, alongside achieving climate goals, by improving access to essential services and opportunities for various social groups. And research shared by the Stockholm Environmental Institute shows that biofuels can have synergies with rural development and employment opportunities.

The interconnection between human development and sustainable transport was a major focus at the **TUMI side event on “Mobility transition in our cities.”** Low carbon transport presents new socio-economic opportunities across value chains. In Côte d'Ivoire, start-up **VeloBoutique** is spreading a culture of cycling along with a chain of “boutique” cycle repair shops, training young people and offering employment. Monika Zimmerman, sustainable transport and cities expert and former Deputy Secretary General of ICLEI who moderated the event emphasised that, “When we prioritise people, we decarbonise transport.”

A [Transport Day](#) session on walking and cycling stressed that public health is a key driver of climate action and that air quality, emissions and noise reduction are co-benefits of active transport modes. In

addition, good infrastructure for active modes and target setting with good planning and thorough evaluation are crucial to set a realistic vision and monitor outcomes.

Low-Carbon Transport Facts and Figures: Key Message 3

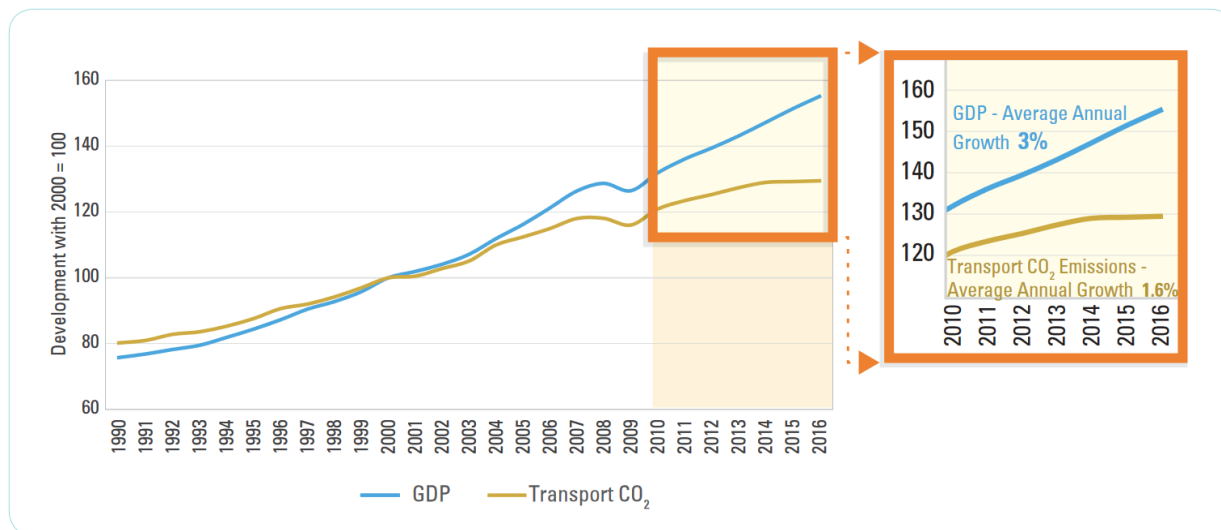


Figure 3: Transport Emissions Relative to Economic Growth (1990 to 2016) (Source: TCC-GSR 2018)

Economic growth is a key driver of transport demand and has contributed to the increase in CO₂ emissions from the transport sector. Since the 2008 financial crisis, GDP and transport emissions have grown at annual rates of 2.7% and 1.1%, respectively, indicating a weakening of the coupling of transport sector CO₂ emissions with GDP.

Key Message 4



Investments in low carbon transport can yield substantial, long-term benefits by increasing social cohesion and equality and reducing disability and deaths

At COP15 Copenhagen, developed countries committed to mobilising USD 100 billion per year by 2020. At COP24, developing countries' calls for a clearer financing process were met with an agreed guidance, which provides for ministerial meetings, synthesis reports, and workshops to focus on evaluating reports on indicative finance provisions from developed countries. Developing countries lauded an agreement to initiate consideration of a new collective finance goal for the post-2025 period starting in 2020 (IISD). Strong financial flows will help to ensure that low carbon transport measures can be scaled up across the Global North and South.

The final COP24 decision on the [Adaptation Fund](#) was also significant, in particular for developing countries, many of whom see adaptation finance as a top priority. The Fund will solely serve the Paris Agreement when the share of proceeds from its offsetting mechanism becomes available (IISD). This will help to increase the resilience of sustainable transport systems in all parts

of the world, and in turn to help such systems to maximize and maintain their mitigation potential.

4.1 There is a growing need for sustainable transport investment. Comprehensive, consistent national and sub-national institutional and policy frameworks can drive public spending, stimulate private investment, and generate innovative financing models.

The majority of transport projects stem from the **city level**, yet most development banks work directly with national governments and experience institutional and structural constraints in working directly with sub-national governments. Because of the highly urban (or inter-urban) nature of most transport systems, cities are an essential unit of organisation in the sector. But **cities often struggle to turn technical studies into bankable projects**, according to Mohamed Sefiani, Mayor of Chefchaouen, Morocco during his intervention at an event on climate finance hosted by the Federal Ministry for Economic Cooperation and Development of Germany (BMZ). ICLEI emphasised that national governments must create enabling frameworks, especially in finance, for cities of all sizes, with civil society directly engaged in driving their ambitions.

Good practices on how to overcome these barriers and provide access to transport finance to smaller cities are emerging. The KfW Development Bank has partnered with the national government of India on a green mobility program that targets city-based projects, such as in Ahmedabad, thus expanding their focus from megaprojects. These projects are an opportunity to build project development capacity within cities, as the [C40 Cities Finance Facility](#) is doing around electric mobility in Mexico City and cycling in Bogota.

At [Transport Day](#), sessions on finance and innovation proposed further solutions in this area. Entities such as the IsDB, the European Investment Bank (EIB) and GIZ expressed readiness to fund more low-carbon transport projects, while underscoring gaps in project preparation and the challenge of building a sufficient pipeline of low carbon transport projects. Uruguay

provides a national subsidy to bridge the gap between conventional and electric buses, with the goal to leverage further funding from international financial institutions.

4.2 Adapting transport infrastructure and services to extreme temperatures, precipitation and sea-level rise is necessary to improve resilience of transport systems and increase long-term returns on investment.



Recent extreme weather events at harbours around the world have reactivated concerns about maritime infrastructure resilience. At the official COP24 Roundtable on Oceans and Transport - coordinated by ITF, the Marrakech Partnership Oceans Group, the Minister of Agriculture from Fiji and others - agreed on the need to increase resilience and improve air quality in the maritime sector. Among the [MPGCA initiatives](#) is [“Navigating A Changing Climate”](#), a resilience effort led by the World Association for Waterborne Transport Infrastructure (PIANC), which is contributing toward these roundtable imperatives.

A [Transport Day](#) session on transport adaptation revealed new energy and solutions. Participants asserted that transport is not simply a sector, but rather a system of systems that is interconnected and integrated with other services (e.g. trade, energy, water). Therefore, building resilient transport means understanding the interconnections between sectors (transport, energy, telecommunications) and fostering information and technology. The sessions concluded that adaptation needs to find its own identity, and that

it is necessary to think about using future scenarios when planning transport activities including design, operation, and maintenance.

4.3 Investment in low carbon transport combined with land use planning can lead to financial savings and quality-of-life benefits that extend beyond the scale, time, and budget of the investments themselves.

The panel at the “Financing Transformation and Low Carbon Mobility” session at [Transport Day](#) reiterated that there are funds and financing available for sustainable transport; however, there remains a lack of [bankable projects](#). Key issues around capacity building, communication, shifting mindsets and project

preparation must be addressed. Therefore, more finance alone will not help to achieve more sustainable transport. Clear policy guidance and smart use of subsidies can bridge gaps, provide matches and accelerate sustainable transport. Financing solutions should not only be accessible to national governments, but also to sub-national governments.

New solutions like green and climate bonds are becoming increasingly popular. Bonds for low-carbon transport projects account for nearly half of all climate aligned-bonds, as noted the [Climate Bonds Initiative](#) (CBI). Though these bonds have traditionally been largely focused on rail, there is potential for expansion to other low carbon modes through CBI’s [Low Carbon Land Transport criteria](#), developed with contributions from the EIB, the International Energy Agency (IEA), ITDP, SLoCaT and others.

Low-Carbon Transport Facts and Figures: Key Message 4

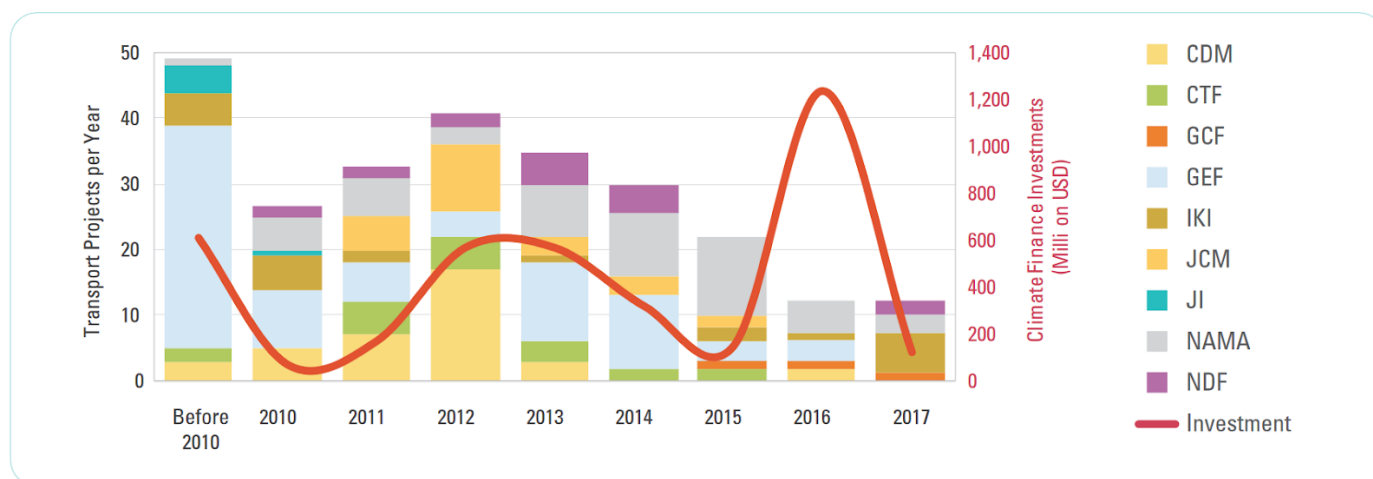


Figure 4: Climate Finance Projects and Investment Volume by Year. (Source: TCC-GSR 2018)

The overall trend of climate finance instruments shows an inconsistent trend in transport project investment in recent years. Enabling the full transformative potential of the global transport community will require a substantial and sustained increase in funding; thus, it is crucial that climate finance flows be aligned with levels of ambition on transport measures in NDCs.

Key Message 5



Source: UNFCCC

Integrated mobility solutions have the potential to transform transport systems into more efficient, low carbon, clean air, people-centered and planet-sensitive solutions

A key outcome of the Katowice conference is that parties agreed to most elements of the Paris Rulebook, with the only major exception being cooperative approaches to international transfers of mitigation outcomes, the Agreement's carbon offsetting mechanism, and non-market-based approaches ([IISD](#)).

Thus, there is room for greater innovation in financial, political and technical solutions to implementation of low-carbon transport within and beyond UNFCCC negotiations.

A [Transport Day](#) session on innovations in low carbon transport concluded that technical innovation is crucial for decarbonisation, but that no single technology or solution will suffice, and the a "green toolbox" will need to suit each context. Political will and long-term policy vision are essential to scaling and implementing innovative technologies and financing, and there is a need to change customer mindsets to go beyond self-interest and consider global benefits.

5.1 New mobility solutions (including bike-, car- and ride-sharing) offer a more efficient usage of (especially autonomous) vehicles and infrastructure, if properly integrated with walking, cycling and public transport.

The ICLEI Third Ecomobility World Festival, which was featured in a TUMI-led event at COP24, resulted in the adoption of [Kaohsiung Strategies for the Future of Urban Mobility](#) by 13 organizations in Kaohsiung, Taiwan in October 2017. The strategy was developed based on the [Shared Mobility Principles for Liveable Cities](#). In addition, bike- and car-sharing were highlighted in the UNFCCC Action Event on Transport as scalable and low-cost solutions that can play a key role in enhancing accessibility, particularly for disadvantaged groups.

The 2018 [Momentum for Change](#) awards at COP24 included a Syrian initiative, "[Yalla Let's Bike](#)," that encourages women to cycle. This women-powered initiative aims to end verbal harassment of female cyclists in Syria, while simultaneously fighting climate change.

5.2 Transport electrification must be closely linked to renewable energy (with electric vehicles contributing storage capacity) in conjunction with reducing, shifting and sharing trips; next-generation transport fuels must have low lifecycle carbon footprints.



A Moroccan Pavilion event on e-mobility - organised by [IRESEN - Institut de Recherche en Energie Solaire et Energies Nouvelles](#), with the [CGEM's](#) New Climate Economy Commission, [ADEME Nouvelle-Aquitaine](#), [ITDP](#), [WWF-France](#), [the Energy Bus](#) and the UK Department of Business, Energy and Industrial Strategy - reinforced the E-Mobility Declaration launched by the Polish Presidency. Participants concluded that all infrastructure must be aligned with e-mobility, and that vehicle electrification efforts must be paired with Avoid-Shift-Improve strategies. The Philippines, for example, has demonstrated the success of systems thinking by upscaling electrification of its jeepney fleet, with the goal to “do things quickly and make mistakes early.”

Renewable energy and biofuels were highlighted in events with participation by REN21, Ethanol Europe, the Climate Ethanol Alliance, the Stockholm Environment Institute and others. The growing nexus between transport and renewable energy is described under Key Message 6.3.

5.3 Information and communication technologies can facilitate sustainable multimodal journeys for individual travellers and can increase efficiency of freight and logistics by optimizing capacity and reducing empty vehicle trips.

Much innovative technology is already available, and what was not feasible some years ago is now in commercial service (e.g. [Alstom's hydrogen-driven train](#)). Innovation must be balanced between passenger and freight applications, as demonstrated through recent innovations in the freight transport sector by Deutsche Post DHL Group.

Low carbon transport can increase access to services for all; however, limited availability of recent public transport data remains a barrier in many developing countries. To address this issue, the [NAZCA Global Climate Action](#) platform enables partnerships with private companies to rapidly scale up transport data production.

Low-Carbon Transport Facts and Figures: Key Message 5

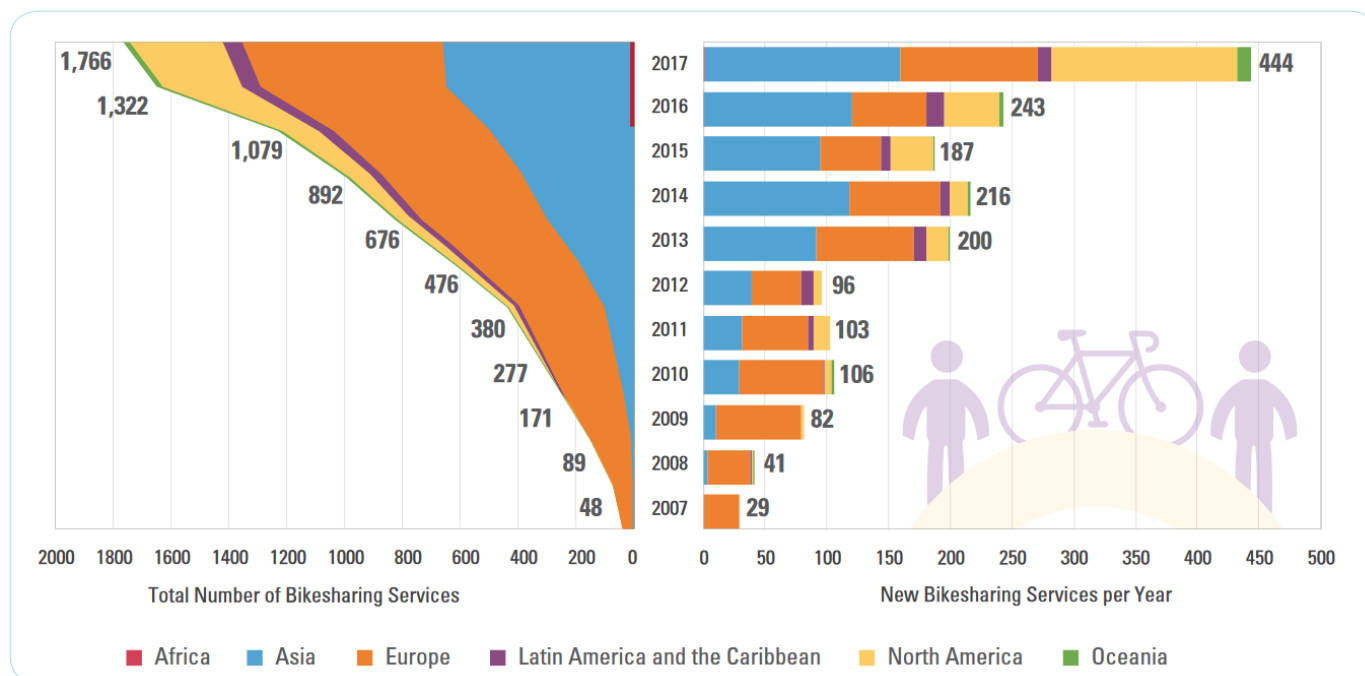


Figure 5: Growth of Bikesharing (2007 to 2017) (Source: TCC-GSR 2018)

In 2010, there were 250 bike-sharing systems worldwide, and by 2015 there were over 1,000. A total of 444 new bike-sharing programs were launched in 2017, increasing global bike-sharing systems by a third in a single year, and bringing the number of bike-sharing services to 1,766.

Key Message 6



The Paris Process on Mobility and Climate and the global transport community stand ready to support development and implementation of country, city and company actions on climate change and transport

Non-party stakeholders are crucial to raising ambition as contributors to climate action and transparency in UNFCCC negotiations; however, many COP24 observers noted a general exclusion of non-party stakeholders from the process. Some also perceived reduced emphasis on the GCA, which was launched to incorporate non-state actors into the formal COP process ([IISD](#)). At the same time, a COP24 decision invited Parties to consider the Talanoa outcomes and outputs in preparing NDCs and defining pre-2020 ambition, providing recognition of mobilisation efforts led by the Local Governments and Municipal Authorities (LGMA) constituency within the scope of Cities and Regions Talanoa Dialogues (as noted in the LGMA closing statement).

The transport sector played a prominent role in UNFCCC processes in 2018 through participation in GCA thematic sessions and cross-cutting roundtables, as well as regional Talanoa Dialogues and climate weeks. And it is more important than ever for the global transport community to build upon the growing momentum to stress the importance of low-carbon transport in UNFCCC processes and in on-the-ground climate action.

6.1 The transport community is supporting governments to develop, implement and maintain their NDCs and long-term low emission development strategies.

The Transport Action Event held under the MPGCA at COP24 focused on measures to scale up climate action in the transport sector. Three main areas were addressed in the event: urban transformation for passenger and freight transport; low-carbon energy strategies for transport; and system efficiency and improved modal shift. Prominent initiatives featured were the Global Fuel Economy Initiative, the Global Green Freight Initiative, ITF's Decarbonising Transport Initiative, and the TDA.

Key messages from this session emphasised that there is no excuse for continued delay of implementing low carbon transport systems, as cost-effective solutions are available now to dramatically reduce transport emissions and also bring significant co-benefits. In addition, there was a perceived need to bridge the gap between transport experts and climate policies to increase cooperation and mutual understanding. Finally, it was recognized that power is in the hands of the governments who are drafting the NDCs, but that success will require consultation with many stakeholders and sufficient attention to both freight and passenger transport solutions.

This required rapid action is being borne out in the MPGCA Transport Initiatives (introduced under Key Message 1.1), which stress the essential role of initiatives led by non-state actors to quickly scale up low-carbon transport measures.

6.2 The transport community is providing policy advice and expertise to the UNFCCC process to help catalyse the decarbonisation of the transport sector and to develop capacities of individuals and institutions.



At the event “Sustainable Mobility: Global Climate Action on Transport” organized by the Ministry of Infrastructure and Water Management of The Netherlands in its capacity of Transport Decarbonisation Alliance member, participants had the opportunity to wrap up the engagement of the TDA at COP24. TDA members, including the Netherlands, Luxembourg, France, the City of Rotterdam, and Energias de Portugal (EDP), as well as the UK and the SLoCaT Partnership Secretariat (which provides secretariat services to the TDA) took part in the event. Stientje van Veldhoven, State Secretary for Infrastructure and Water Management of the Netherlands, stated that a zero-carbon transport sector is possible but will require governmental policy to shape markets, and that international cooperation is needed to reduce aviation and shipping emissions.

Transport measures in Vietnam’s revised NDCs are being developed with support from GIZ, as described in a [report](#) on achieving ambitious transport sector climate plans in rapidly-motorising countries. The PPMC is supporting the development of long-term national decarbonisation roadmaps to complement the shorter-term focus of NDCs. Long-term roadmaps for France, India and Morocco are at varying stages of development and implementation.

6.3 The transport community is cooperating with other sectors (such as energy, health, education, human settlements and finance) to catalyse effective and enduring climate action.

The TDA stresses the importance of creating a closer nexus between renewable energy and transport sector decarbonisation, among others through the membership of [ITAIPU Binacional](#), the world’s largest generator of renewable clean energy, and of [EDP](#), which has invested 200 million Euro in innovative projects on clean energy technologies and has partnered with 13 electric vehicle manufacturers to promote electric mobility. The nexus of transport and sustainable urban settlements was also stressed at the TUMI event “Mobility transition in our cities”, though presentations from the [C40 Fossil Free Streets Declaration](#) (formerly known as the C40 Cities Clean Bus Declaration) and ICLEI’s Ecomobility Festival in 2017 (as described under Key message 5C).

Cross-sectoral cooperation was a driving force for transport at COP24, as seen in the participation of the SLoCaT Partnership Secretariat in a REN21 event, and REN21’s participation in the TCC-GSR launch event and

press conference. According to Rana Adib, Executive Secretary of REN21 and TCC-GSR Special Advisor, "To decarbonise the transport sector we need renewables; both the TCC-GSR and REN21's Renewables GSR track advancement in the transport and renewable energy sectors to inform policy processes and support integrated approaches."

The WHO has also made important contributions to the TCC-GSR, stressing the importance of linking transport climate action and public health impacts resulting from growing transport demand and emissions (see figure below). While cross-sectoral bonds are growing stronger, further bonds must be forged with the public health community to enable the transport sector to realize its full mitigation potential and to maximize its leverage in achieving the SDGs.

It must be noted that the full transformative potential of the global transport sector will require a substantial and sustained increase in funding, as well as close attention to the sector's contribution to the overall goal of achieving a "just transition". The COP24 Presidency's Open Dialogue noted the imperative for a just workforce transition and the creation of quality jobs while pursuing climate action. The global transport community can benefit from greater collaboration with NGOs focused on prioritizing this topic in the UNFCCC process, which will help to ensure that the broader socio-economic benefits of sustainable, low carbon transport are maximised.

Low-Carbon Transport Facts and Figures: Key Message 6

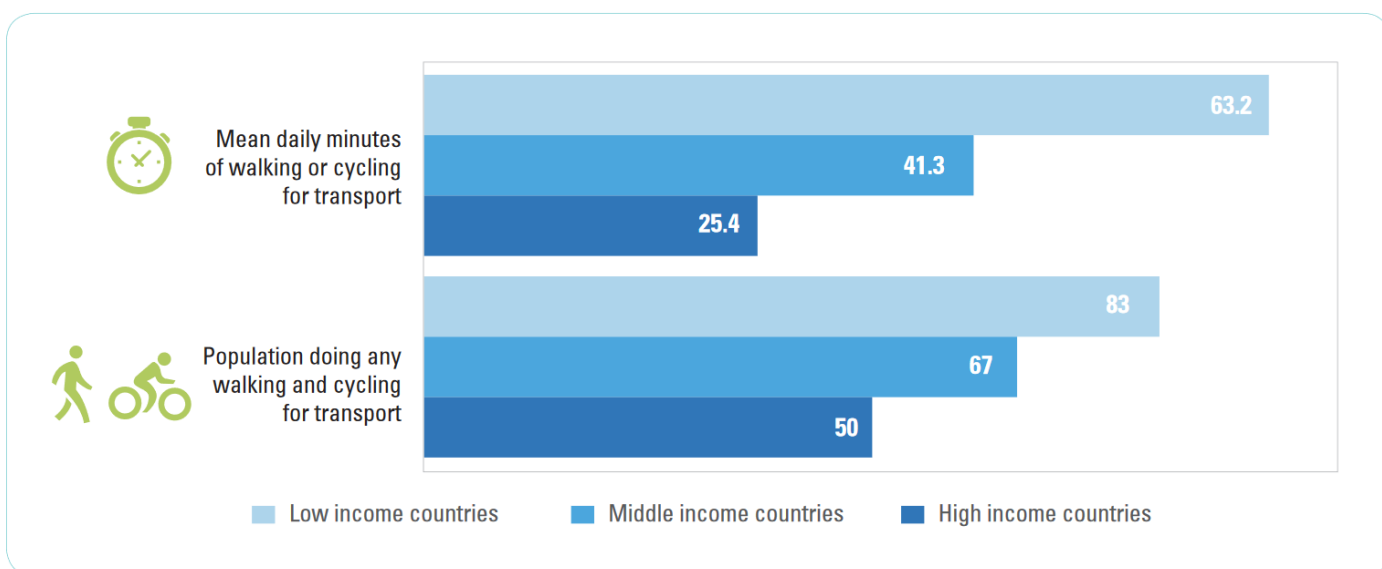


Figure 6: Walking and Cycling for Transport by Income Group (Source: TCC-GSR 2018)

Figures between 2002 and 2016 show that people in low-income countries walked or cycled on average more than twice as much daily as residents of high-income countries. Similarly, 83% of people in low-income countries walk or cycle for transport at least once a week, versus 50% in high-income countries; suggesting that higher motorisation rates can decrease physical activity.

Closing Thoughts

The so-called “Katowice Climate Package” though far from perfect or complete, came through in the final hours of COP24, demonstrating that the Paris Agreement persists. While some had hoped for heightened ambition through a continuation of the Talanoa Dialogue or a decision text encouraging countries to enhance their NDCs by 2020, the COP24 decision simply “takes note” of the Dialogue and invites parties to consider Dialogue outcomes in preparing NDCs ([IISD](#)).

In this context, Prime Minister of Fiji and President of COP23, H.E. Frank Bainimarama noted, “The Talanoa Dialogue now must give way to the [Talanoa Call to Action](#). Together, we must recognize the gravity of the challenge we face – the need to increase our collective NDCs fivefold – five times more ambition, five times more action – if we are to achieve the 1.5DS target.” UN Secretary-General António Guterres returned to Katowice late during COP24 to interject energy into flagging proceedings; noted Guterres after the final COP24 decision, “the priorities now are ambition, ambition, ambition, and ambition” ([IISD](#)).

COP25 will take place in Chile in November 2019, following Brazil’s reversal of its initial plans to host the conference. The next COP, in concert with a preparatory session hosted by Costa Rica, is expected to tackle unresolved issues and will surely hold

implications for low carbon transport in a region that is highly urbanised, has a high bus public transport mode share, and has a high share of renewables in its energy mix. 2019 holds other important climate action milestones. For example, The UN Secretary General’s Climate Summit in [September 2019](#), will focus on demonstrating transformative action in the real economy to support Paris Agreement goals. The SLoCaT Partnership Secretariat looks forward to supporting and facilitating engagement of its members and the wider transport community in these 2019 milestones in collaboration with key partners.

The transport community must similarly continue the trajectory of raising ambition on sustainable low carbon mobility and providing continued guidance for translating ambition into accelerated action through tested sustainable mobility solutions across the Global North and South. Noted Prime Minister Bainimarama, “together, we can overcome the greatest threat humanity has ever faced – with the entire global community emerging more prosperous and more resilient.” In the coming year, the PPMC, in concert with the global transport community, will continue its efforts to facilitate action on sustainable, low carbon transport to help realise this bold and crucial vision.





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