



#TransportInNDCs



Raising Ambition for Transport in Nationally Determined Contributions

A Five-Point Plan for Transport in New NDCs



SLOCAT

Partnership on Sustainable,
Low Carbon Transport



What are Nationally Determined Contributions (NDCs)?

What are NDCs?

NDCs are climate action plans by countries that outline **targets and actions to reduce greenhouse gas emissions and adapt to climate change**. They are a central element of the Paris Agreement on Climate Change, which aims to limit global temperature rise to well below 2°C and pursue efforts to limit it to 1.5°C. The NDCs also allow a country to highlight where they need support through climate finance, technical assistance and capacity building.

NDC process

NDCs operate in a five-year cycle, which means that countries submit new or updated climate action plans every five years. **Countries must submit their third round NDCs in 2025**. While the second round of NDCs laid out activities until 2030, the **third round of NDCs is expected to outline targets and actions until 2035**. To ensure progress, every new NDC must be more ambitious than the last. Strengthening NDCs is essential to achieve the goals of the Paris Agreement. Associated with this five-year cycle, countries assess the collective progress towards Paris Agreement goals through **the Global Stocktake (GST)** process. The first GST was concluded in 2023 and the next GST will be in 2028.

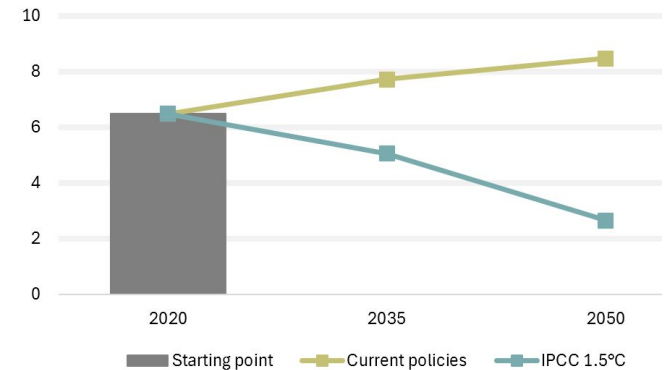
Transport's crucial role in tackling climate change

The transport sector is a key enabler of prosperity and livelihoods. In 2021, the sector contributed **7% (USD 6.8 trillion) of the global gross domestic product** and employed 5.6% of the world's workforce (193 million people). However, transport emissions are heading in the wrong direction.

Transport is the second-largest greenhouse gas emitting sector, accounting for **21.9% of total CO₂ emissions in 2023**. Achieving transport pathways that align with the 1.5°C target will require at least **a 59% reduction in global transport CO₂ emissions by 2050** compared to 2020 levels.

Future transport CO₂ emissions under current policies and IPCC's 1.5°C scenario

Gigatonnes CO₂ emissions



(Source: OECD-ITF (2021), "ITF Transport Outlook 2021", Chapter 2, Figure 2.8, available at: https://www.oecd-ilibrary.org/transport/itf-transport-outlook-2021_16826a30-en; IPCC (2022), Sixth Assessment Report, <https://www.ipcc.ch/assessment-report/ar6/>)

Besides its significant contribution to climate change, the **transport sector is increasingly exposed to its consequences.**

Climate-induced natural hazards cause an estimated **USD 15 billion in direct damage to transport systems annually**, of which an estimated USD 8 billion occurs in low- and middle-income countries.

Low- and middle-income countries experience the highest costs relative to their gross domestic product. In addition to the physical damage, transport disruptions have severe socio-economic and connectivity implications for affected individuals and communities.

Countries are capturing specific activities on adaptation and resilience through National Adaptation Plans (NAPs). The NAP process can help to identify adaptation goals and priorities for NDCs ensuring their connection to mitigation activities.



It is now or never



The Intergovernmental Panel on Climate Change (IPCC) shows that a **Paris Agreement-compliant pathway for transport is possible, but will require swift action**. Global greenhouse gas emissions need to peak by 2025, followed by rapid and deep emission reductions throughout 2050 in order to limit global warming to 1.5°C.

The persistence of ineffective measures adds another layer of complexity. Over USD 1 trillion was spent on fossil fuel support in 2023. New vehicle sales increased by over 10% in 2023, with fossil fuel-powered vehicles still dominating. Over half of the world's population continues to lack access to public transport, as policies and investment do not sufficiently enable *Avoid* and *Shift* measures.

These challenges are particularly acute in low- and middle-income countries, marked by rapidly growing populations, spiralling urbanisation, rising private motorisation rates and a lagging transport sector.



In a hopeful light, **several positive trends can be observed: 40 million battery-electric and hybrid electric cars** were on our streets, as of 2023. Battery prices have decreased by 69% from 2015 to 2023, achieving a **record low of USD 139 per kWh**. Out of the USD 3 trillion global energy investment in 2024, **USD 2 trillion were spent on clean energy technologies**.

Amplifying these positive technological and financing developments calls for conducive policy and regulatory frameworks. Therefore, in this era of climate emergency, it is **paramount that countries set more ambitious, robust and actionable targets and roadmaps** for the decarbonisation, the adaptation to climate change impacts and the resilience of transport and mobility systems – in a just transition.

New NDCs need to build on the COP28 Global Stocktake Outcome, by accelerating the reduction of emissions from road transport on a range of pathways, including through the development of infrastructure and rapid deployment of zero- and low-emission vehicles.



Benefits of robust transport actions in new NDCs

2025 presents a pivotal window to turn existing challenges into opportunities and accelerate progress towards sustainable, low-carbon transport by enhancing ambition and robustness of transport strategies within the new NDCs.

Boosted investment and prosperity

- Attract funding through robust NDCs
- Create jobs and drive prosperity

Reduced emissions and cleaner cities

- Cut GHG in passenger and freight transport
- Improve air quality and reduce noise pollution

Inclusive, collaborative approaches

- Bring subnational and non-state actors on board
- Ensure more integrated, unified strategies

Stronger resilience and energy security

- Move away from fossil fuels
- Better resilience against global shocks

Greater efficiency and cost savings

- Save energy, land, and public funds
- Avoid costly reliance on outdated technologies

Diversified infrastructure and wider access

- Enhance services for better opportunities
- Build networks that benefit everyone

A Five-Point Plan for Transport in New NDCs

1 Set targets

1 Set ambitious transport emissions reduction targets for 2035, aligned with net zero pathways by 2050.

[Read more](#)

2 Scale up action

2 Accelerate transformation towards energy-efficient and fossil-free transport.

[Read more](#)

3 Secure assets

3 Build resilience and adaptation on transport and mobility.

[Read more](#)

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Catalyse finance

4 Shift finance and investment to low-carbon, resilient transport solutions.

[Read more](#)

5

Prioritise people

5 Focus on people in climate action on passenger and freight transport.

[Read more](#)



Building upon WRI's Five-Point Plan for Next Generation NDCs



Set targets

Set ambitious transport emissions reduction targets for 2035, aligned with net zero pathways by 2050.

How can NDCs set targets?

- **Transport sector-targets aiming at reducing absolute GHG emission levels compared to a base year (e.g. 2010 or 2019).**
- **Lead by example:** high-income countries are contributing to half of the annual transport GHG emissions, so this group in particular needs to set strong, Paris-aligned targets.
- 2035 targets with a **medium-term transport GHG mitigation target for 2030** and align all targets with net-zero by 2050.
- **Non-GHG targets** aligned to the Global Stocktake Outcome (in particular paragraph 28(g)) as well as **doubling the share of energy efficient and fossil-free forms of land transport by 2030**.

Did you know?

To limit global warming to 1.5°C above pre-industrial levels, **transport greenhouse gas emissions** will require at least a 59% reduction by 2050, compared to 2020 levels. Detailed climate change mitigation pathways are provided in **IPCC's Sixth Assessment Report**.

In the IEA's **net zero emission scenario**, a 90% drop in transport emissions (below 2020 levels) is required by 2050. Road transport modes will have to contribute the major share of emission reductions.



Set targets

Set ambitious transport emissions reduction targets for 2035, aligned with net zero pathways by 2050.

Positive approaches across previous NDCs

- **29 NDCs from the second-round NDCs** (submitted between 2020 and 2023) feature transport greenhouse gas mitigation targets. It represents 19% of all submissions.
- Majority of these NDCs are from **African and Asian countries**.

Situation in new NDCs

- As of 26 February, the new NDCs* by **Andorra, Botswana, Marshall Islands, Saint Lucia, Switzerland** and the **United Arab Emirates** feature transport emission mitigation targets, resulting in 33% of the current submissions (18 new NDCs in total).

Positive approaches in new NDCs: Switzerland

- **Switzerland** aims to reduce national transport sector GHG emissions **41% by 2035 compared to 1990 levels**.
- Through 2040 the transport GHG emissions will be reduced by **57%** and until 2050 they will be reduced by **100%**, contributing to the country's 2050 net-zero target.

* We regard any submission since November 2024 as a new, third-round NDC.



Scale up action

Accelerate transformation
towards energy efficient and
fossil-free transport.

How can NDCs scale up action?

- Enact **conducive regulatory frameworks and incentives to drive the transformation.**
- Adopt legislation and policy frameworks on **public and collective transport, railway, safe walking, cycling and micro-mobility** to translate targets into action.
- Develop **infrastructure and deploy zero- and low-emission light-, medium- and heavy-duty road vehicles as well as rail vehicles.**
- Take bold actions on **domestic aviation and maritime transport** and push for ambitious strategies by ICAO and IMO.

Did you know?

The [Outcome of the First Global Stocktake](#) of COP28 called on countries to accelerate the reduction of emissions from **road transport on a range of pathways**, including through development of infrastructure and rapid deployment of zero- and low-emission vehicles.

The range of pathways reflects activities across the [Avoid-Shift-Improve framework](#).



Scale up action

Accelerate transformation towards energy efficient and fossil-free transport.

Positive approaches in previous NDCs: Sri Lanka

- Sri Lanka's NDC from 2021 supports their transport greenhouse gas mitigation target with **a diverse set of transport actions**.
- The NDC applies the **Avoid-Shift-Improve framework** to structure their mitigation options for passenger and freight transport into 13 action areas.
- The action areas cover **system improvements, public transport expansion, shift to efficient freight modes, zero-emission vehicle uptake and vehicle efficiency increase among others**.

Positive approaches in new NDCs: Singapore

- **Singapore's** NDC points to the specific reference from the Global Stocktake and identifies specific measures:
- Expanding the **metro rail network** (from 270 to 360 km by early 2030s, 8 in 10 households within a 10-minute walk from a train station).
- Building **cycling lanes** (from 600 to 1,300 km by 2030) and improving walking infrastructure.



Secure assets

Build resilience and adaptation on transport and mobility.

How can NDCs secure assets?

- **Building resilience and transport system adaptation** to extreme weather events induced by climate change.
- **Ideally, mode-specific actions** and **multimodal transport solutions** to diversify infrastructure and services.
- NDC content on adaptation can benefit from the NAP process and integrate **sustainable development priorities** and **reinforce linkages to mitigation actions**.

Did you know?

The [Global Goal on Adaptation](#) urges Parties to **increase the resilience of infrastructure and human settlements** to ensure basic and continuous essential services while minimising climate-related impacts on infrastructure and human settlements.

Adaptation and mitigation efforts are mutually reinforcing. Adaptation helps to cope with the unavoidable effects and creates the resilient foundation for mitigation action and sustainable development. Read more about it in the [SLOCAT Transport, Climate and Sustainability Global Status Report - 3rd edition](#).



Secure assets

Build resilience and adaptation on transport and mobility.

Positive approaches in previous NDCs: Colombia

- The 2020 NDC by **Colombia** provides a list of adaptation activities planned at the level of the Ministry of Transport.
- Adaptation and resilience will be enhanced through more **data and knowledge** on the impact of extreme weather events on transport. **Early warning systems** will be established and **disaster risk management** will be implemented.
- **Capacity building programs** for the transport sector will be conducted.
- **Guidelines and methodologies** to strengthen resilience for road infrastructure will be developed.

Positive approaches in new NDCs: Lesotho

- **Lesotho** outlines targets and actions on transport adaptation:
 - Strengthening standards to **climate proof roads** by 2025.
 - Improving **infrastructure for flood controls**.
 - Improving integrated **multi-hazard risk assessment and vulnerability planning** by 2025, updates every three years.
- The NDC also links these actions to **SDGs** and **mitigation impacts**.



Catalyse finance

Shift finance and investment
to low-carbon, resilient
transport solutions.

How can NDCs catalyse finance? ---

- **Redirection of finance and economic mechanism reform** to support zero-emission and resilient transport priorities, reduce transport poverty and enable a just transition.
- Phase out of **inefficient fossil fuel subsidies and the sales of internal combustion engines** to increase the competitiveness of sustainable transport modes.
- **Unconditional and conditional financing needs** for the transport activities as well as any related needs (technology transfer, capacity building etc.).

Did you know?

Clean transport solutions will cost roughly **USD 2.7 trillion annually until 2050**, seven times more than the current investment levels on transport. The **investment gaps are the highest in low- and middle-income countries in Africa and Asia**. Read more about it in "**A Policy Guide to Improving Access to Climate Finance for Transport**".



Catalyse finance

Shift finance and investment
to low-carbon, resilient
transport solutions.

Positive approaches in previous NDCs: China

- The 2021 NDC from **China** shows how national funding is injected in specific activities to transform the economy and transport system.
- National government funding supports modal share adjustments, emission reductions of aviation and maritime transport, comprehensive transport strategies and promotion of zero-emission vehicles.
- Zero-emission vehicles were exempted from vehicle purchase tax between 2016 and 2022 and still benefit from tax breaks.

Positive approaches in new NDCs: Saint Lucia

- To support an uptake of electric vehicles, **Saint Lucia** will invest in **charging infrastructure**, provide **fiscal incentives** and give people a **financial purchase support**.



Prioritise people

Focus on people in climate action on passenger and freight transport.

How can NDCs prioritise people?

- **Adopt a system-wide approach to climate action in transport**, across both **passenger and freight** segments, **land use, planning** and **accessibility** while placing people at the centre of the transition.
- Pursue efforts to **avoid** motorised transport based on proximity and accessibility and **shift** to low carbon intensive modes. It helps to balance them against a strong focus on vehicle and technology solutions (so-called "Improve" actions).
- Policies, regulations and training to **empower the current workforce in a just transition** towards sustainable, low-carbon transport jobs.

Did you know?

Since the 2015 Paris Agreement on Climate Change, a **'just transition of the workforce'** has been embedded in global climate goals. Just transition in transport is important to ensure that the shift towards sustainable mobility is inclusive and equitable. However, according to an [analysis by SLOCAT and the International Transport Workers' Federation](#), only a fifth of NDCs refer to a just transition in the transport sector.



Prioritise people

Focus on people in climate action on passenger and freight transport.

Positive approaches in previous NDCs: South Africa

- **South Africa's** 2021 NDC includes transport measures for **electric and hybrid vehicles, public transport** and **shifts to more efficient modes**.
- The NDC highlights a **just transition programme for workforce** development, job growth, social protection and livelihood creation, while incentivising new green sectors.
- These activities aim to minimise costs and maximise benefits for workers and communities.

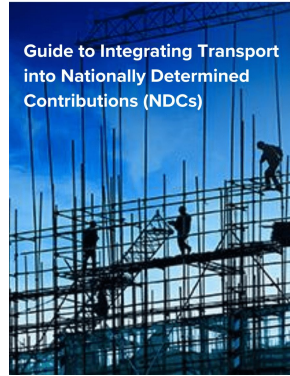
Positive approaches in new NDCs: United Kingdom

- References to dedicated **programmes on just transition for workers**, communities and businesses to transition to net zero.
- Support will be provided to **training** and **education** in new skills needed for the transition, working together with **unions, local authorities** and **employers**.

General transport guidance



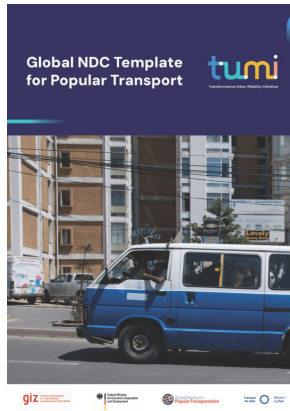
CHANGING TRANSPORT giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH



Mode-specific guidance



Popular transport



Public transport



Railways



Consult these guidance by specialised transport organisations on how to integrate in new NDCs robust actions on transport modes.

SLOCAT Activities in 2025 for new NDCs and their implementation

Outcomes

Consensus and capacity for NDC 3.0 implementation.

Enhanced impact of:

- **NDCs guidelines and templates** released by transport actors (ITF, GNPT, PATH Initiative, UIC, UITP).
- **2030 Avoid-Shift Target** by the High-Level Climate Champions, which builds on our **#Fossil Free Transport Call To Action**.
- **Compendium of Policies and Investments for Freight Transport and Logistics** initiated by SLOCAT-Kühne Climate Centre, in collaboration with a large number of actors.

Activities

Campaign on NDCs 3.0. Recommendations, with illustrative inspiring practices (Q1).

Webinar series on NDCs with partners (Q1).

- Potentially convened with the High-Level Climate Champions Team in the framework of the Avoid/Shift Target.

GIZ-SLOCAT Tracker of NDCs and analysis

- Preliminary insights (May TBC).
- Final joint analysis (Q4).
- GIZ's analysis on Biennial Transparency Reports.

Assessment of urban mobility in the NDCs with UN Habitat (Q2-Q3 TBC).

NDCs 3.0 Library: Ongoing compilation of guidelines, tools and resources from various transport organisations.

Useful readings

- Call to double the share of energy efficient and fossil-free forms of land transport by 2030
- State of play of transport targets in nationally determined contributions and beyond in Asia and the Pacific
- Transport Decarbonisation Index (TDI)
- A Policy Guide to Improving Access to Climate Finance for Transport
- SLOCAT Transport, Climate and Sustainability Global Status Report - 3rd edition
- Freight Transport and Logistics in National Climate Strategies
- Prioritising just transition for transport in Nationally Determined Contributions



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