

ITC Strategy on Reducing Greenhouse Gas Emissions from Inland Transport



**TAKING
AMBITIOUS
CLIMATE
ACTION**

Decarbonizing
inland transport
by 2050



UNECE

Geneva, 2024



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 I. Inland transport and climate

1. In 2019, inland transport accounted for 72 per cent of global transport greenhouse gas (GHG) emissions, with 69 per cent originating from road transport, two per cent from inland shipping and one per cent from rail. The inland transport sector as the main contributor to GHG emissions from transport thus bears a unique responsibility for reducing emissions and contributing to climate change mitigation.

2. Passenger demand is projected to increase by 79 per cent by 2050 compared to 2019, while freight demand will roughly double. With growing transport demand in the years to come, without rapid and ambitious climate action, transport emissions will not fall fast enough. Meeting the goal of the Paris Agreement to pursue “efforts to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels,” according to the Intergovernmental Panel on Climate Change (IPCC), will require global GHG emissions to peak before 2025 and be reduced by 43 per cent by 2030. The outcomes of the 28th UN Climate Change Conference included a call upon countries to contribute, in a nationally determined manner, to accelerating the reduction of emissions from road transport and to transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science, taking into account the Paris Agreement and their different national circumstances, pathways and approaches. In addition, urgent action is needed to accelerate achieving the Sustainable Development Goals. As of 2023, 88 per cent of the Sustainable Development Goals targets are not on track, including Sustainable Development Goal 13 (climate action).

3. Meeting the 1.5-degree goal and progressing towards achieving the Sustainable Development Goals implies a radical transformation of mobility and transport systems and for these to be prioritized in policy, regulatory and fiscal frameworks. The United Nations Secretary-General remarked, at the opening of the second United Nations Global Sustainable Transport Conference (Beijing, 14 to 16 October 2021) that “Transport, which accounts for more than one quarter of global greenhouse gases, is key to getting on track. We must decarbonize all means of transport, in order to get to net-zero emissions by 2050 globally” (United Nations press release, available from: <https://press.un.org/en/2021/sgsm20971.doc.htm>).

4. This Strategy aims to support the inland transport sector to take urgent climate action, following the prior adoption of climate change mitigation strategies for the shipping sector by the International Maritime Organization (IMO), and the setting of aspirational goals for the aviation sector by the International Civil Aviation Organization (ICAO). It responds to the Inland Transport Committee (ITC)'s request at its eighty-fifth session to develop an ambitious strategy document for reducing GHG emissions in inland transport based on international United Nations legal instruments under the Committee's purview with priority actions for the ITC and all its relevant subsidiary bodies, supported by a strong action plan with milestones, for consideration and adoption by the Committee at its eighty-sixth plenary session (ECE/TRAN/328, para. 60(a)).

5. The Strategy builds on the ITC Strategy until 2030 (ECE/TRANS/288/Add.2), adopted by the Committee in 2019, which considers climate change as a cross-cutting issue, and the Committee's revised Terms of Reference endorsed by the Economic and Social Council (ECOSOC) in 2022 (E/RES/2022/2). It takes account of actions which have been committed to by adopting, and noting, respectively, Ministerial declarations at the Committee's eighty-fourth and eighty-fifth sessions. By endorsing the Ministerial Declaration "Harnessing the full potential of inland transport solutions in the global fight against climate change" at the last session, Ministers and Heads of Delegations declared their steadfast support for the goals and objectives of the 2030 Agenda for Sustainable Development, the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement, to accelerate the transition to decarbonized mobility and net zero or low emissions in the inland transport sector.

6. In line with the Committee's mandate, this Strategy is focused primarily on climate change mitigation, recognizing – in line with the Paris Agreement – that limiting temperature rise in line with its objectives would significantly reduce the risks and impacts of climate change. Key infrastructure systems including transport will be increasingly vulnerable if changing climate conditions are not taken into account. Adaptation will become progressively less effective when extreme weather events increasingly overwhelm transport and economic systems. This dynamic may worsen if urgent action is not taken today. As the resulting social and economic costs of devastating climate-related calamities mount, their impacts on the lives of present and future generations will become more and more disruptive. At the same time, the present Strategy recognizes the importance of simultaneously pushing efforts to adapt to climate change and continuing to strengthen the resilience of transportation systems and operations through the work of the ITC and its subsidiary bodies.



II. ITC vision and mission for climate action

7. The Inland Transport Committee's **vision** for climate action is as follows:

The Inland Transport Committee and its subsidiary bodies take urgent action to assist its member States and Contracting Parties to United Nations legal instruments under its purview in achieving the aspirational goal of net zero GHG emissions from inland transport by 2050.

8. ITC's mission is to contribute to decarbonization of inland transport by its member States and Contracting Parties to United Nations legal instruments under ITC's purview through enhanced regulatory support, intergovernmental policy dialogue, and increased coordination and partnership among all relevant stakeholders.

9. In doing so, the ITC draws from a broad decarbonization framework that draws on avoid-shift-improve measures which Member States may implement in any of or across the following areas:

(a) Avoid unnecessary vehicle kilometres through compact development, increasing accessibility to services, and reducing the need to travel as much as we do today.

(b) Shift to low and zero carbon, sustainable transport modes and/or operations; and

(c) Improve vehicles, infrastructure, and operations.

10. There is no one-size-fits-all prescription on which decarbonization action and in which area, or combination of areas, helps to achieve most progress. This would depend on a number of variables including individual context,

economic imperatives of developing countries, availability of strategies and action taken in the past on the basis of which the right mix of sectoral but also cross-sectoral measures is selected for the future.

11. The inland transport sector has the potential to look for solutions to minimize certain travel such as empty runs and in this way avoid it. It is not only a question of reducing or avoiding journeys deemed unnecessary (for example by supporting teleworking), but also of optimising or reducing the resources used to ensure decarbonized transport. At the same time, the potential of more efficient transport often may lie in cross-sectoral solutions and the inland transport sector could be open to collaboration with other sectors to address, among others, spatial and land-use planning, or reorganization of supply chains, for example, from global to regional sourcing. Mobility management may help improve mobility services before developing new infrastructure. Work on developing and implementing sustainable or national urban mobility plans (SUMP and NUMP) can be a good example of achieving the necessary results by ensuring synergies between spatial planning and smart mobility solutions where equity and environmental justice are taken into account to provide better access to goods and services with less travel and where public engagement in this process is realized.

12. By shifting to low- and zero-carbon and sustainable modes of operations, transport will make the best use of existing low carbon modes and operations. This could comprise prioritizing intermodal or multimodal transport for both freight and passengers at different levels - international, national, regional or local, where appropriate. This could mean shifting long-distance passenger transport from road to rail and freight transport from road to rail or waterways or enabling intermodal transport while recognizing equity and public support to this action. At the regional and local level, this could mean giving priority to public transport in combination with cycling and walking for passenger transport and enabling new approaches to urban freight solutions, again realizing it with full public support.

13. By improving vehicles, infrastructure and operations, including border crossing operations, the inland transport sector will become more efficient. Targeting 'improve' measures is expected to spur innovation to decouple transport use from GHG emissions.

14. The inland transport sector may also ensure that the work within the decarbonization framework is intrinsically linked with making transport systems resilient ('adapted') to the risks of climate change. This will prevent situations where transport adaptation investments are made in support of operations or modes whose use may be targeted for reduction under the climate change mitigation effort, where such a reduction is relevant/appropriate for Member States.

15. Against the above background, ITC will drive change in the transport sector and put it on the trajectory towards net zero.

16. In doing so, ITC will engage in improving the inland transport regulatory framework, promoting innovative policy instruments and providing and developing necessary guiding material and handbooks as well as providing targeted, demand driven, technical assistance to enable behavioural change towards low- and zero-carbon, sustainable mobility. ITC will support the adoption of new technologies and innovations, including Intelligent Transport Systems (ITS) and digital solutions.

III. Strategic objectives

A. STRATEGIC OBJECTIVES FOR ITC AND ITS SUBSIDIARY BODIES

17. ITC, through its unique intergovernmental framework, provides comprehensive support to its members and Contracting Parties to United Nations inland transport legal instruments for amplified action to reduce GHG emissions from inland transport, making use, as necessary and where possible, of the full range of available decarbonization options, resulting in:

(a) Increased inter- and intra-regional governance

Strengthening and, where relevant, further elaborating the inland transport regulatory framework. This may include updating the international legal instruments under ITC's purview and developing additional

legal instruments to incorporate the decarbonization of the inland transport sector already at design and planning of inland transport systems at any level.

(b) Enhanced and more coordinated climate actions by and among ITC subsidiary bodies

Providing enhanced support to their membership in climate change abatement, based on a regular assessment and reporting of their contribution to implementing this Strategy, by informing ITC on the progress to deliver on the actions set by this Strategy (on a biennial basis). ITC provides guidance and direction on areas that benefit from enhanced cooperation, and by developing partnerships with other international, inter- and non-governmental organizations, academic institutions and the private sector to join forces, reap synergies and support multiplied climate action.

(c) Increased intergovernmental support for climate change mitigation and adaptation

- Fostering regular policy dialogue to promote cooperation among member States and Contracting Parties to the United Nations inland transport legal instruments;
- monitoring progress on the decarbonization of inland transport globally;
- providing technical assistance and advisory services, including awareness-raising, technical support, workshops, training and projects in support of climate change abatement including at transport system design and planning phase; and
- providing analytical support.

B. STRATEGIC OBJECTIVES FOR THE IMPLEMENTATION OF THE STRATEGY BY THE INLAND TRANSPORT SECTOR

18. ITC's work will support achieving the strategic objectives of the inland transport sector, which encompass:

(a) Develop and enhance policies, legislation and measures and their monitoring, covering any combination (depending on national/regional circumstances) of the decarbonization measures. Countries and inland transport sector practitioners could support on a voluntary basis the deployment, where appropriate, of a range of measures that cover passenger and freight, strengthening the implementation of the United Nations inland transport legal instruments by:

- Where not yet existing, perform preliminary tasks to assess the feasibility and potential benefits to develop national strategies and setting inland transport GHG emission reduction targets for the short-, medium- and long-term and communicating these in the format of designated "inland transport decarbonization action plans" to the ITC. Depending on the outcome of these feasibility exercises, and in respect of each participating Party, closely align with the UNFCCC Nationally Determined Contributions (NDCs) processes, if applicable, and its long-term low GHG emission development strategy (LTS), if it has submitted one, to avoid duplication of efforts where not needed;
- Amplifying efforts to fully implement the United Nations inland transport legal instruments and actively engaging with Contracting Parties in improving and amending relevant legal instruments to support timely achievement of the targets, commitments and solutions on climate change;
- Continuing efforts to deploy carbon neutral technologies through, inter alia, investing in the expansion of needed infrastructure as a key enabler for decarbonization, ensuring that regulations, standards and protocols are harmonized across borders, for both vehicles and infrastructure, using energy that is clean and renewable, enabling balanced energy consumption, considering the capacity of the energy network;
- Facilitating modal shift, along with setting targets for countries, as appropriate to them, to shift passengers and freight from road to rail and inland waterways as well as to multimodal mobility, where appropriate, and by supporting corresponding infrastructure development;
- Promoting, in particular in urban and suburban environments, public transport as well as shared or active mobility options including through setting targets for countries, as appropriate for them;

- Easing the adoption of zero to low-carbon modes of transport by end-users via policy measures;
- Promoting data collection, for example on active mobility and baseline data on travel patterns to guide policy design and objectives;
- Encouraging the use of globally harmonized indicators to monitor progress of inland transport decarbonization; member States are invited to support the development and use of the following recommended indicators and actions to effectively assess progress and support the implementation of the strategy. Key indicators and actions could include, but are not limited to:

Recommended key performance indicators for the inland transport sector to monitor GHG emissions and its drivers

- GHG emissions from inland transport (tCO₂eq by mode)
- Traffic activity (total t, total p, v.km, p.km, t.km by mode)
- Carbon intensity (gCO₂/tkm, gCO₂/pkm by mode)
- Existing and new transport and digital infrastructure (km by infrastructure type, also by class if necessary)
- Counts, location and power (where relevant) of public energy supply infrastructure for inland transport (by mode and energy type) /number and transport performance (supra-regional transport) or to the number of vehicles (regional/urban development)
- Registered number of cars/number of inhabitants

Desired actions by the inland transport sector to ensure ITC and its legal instruments promote and deliver on low-and zero-carbon mobility

- Inland transport decarbonization plan prepared according to ITC guidelines, aligned with UNFCCC processes
- Number of ITC guidelines, tools, courses used
- Number of policy dialogues to promote accession to ITC legal instruments in and outside of ECE region

Supplementary indicators to be considered for additional information collection to support the implementation of the Strategyits drivers

- GHG emissions from inland transport (tCO₂eq by mode)
- Traffic activity (total t, total p, v.km, p.km, t.km by mode)
- Carbon intensity (gCO₂/tkm, gCO₂/pkm by mode)
- Existing and new transport and digital infrastructure (km by infrastructure type, also by class if necessary)
- Counts, location and power (where relevant) of public energy supply infrastructure for inland transport (by mode and energy type) /number and transport performance (supra-regional transport) or to the number of vehicles (regional/urban development)
- Registered number of cars/number of inhabitants

(b) Foster the efficient use of energy through route optimization and optimized driving behaviour and the use of ITS and digitalization, the accelerated substitution of fossil-fuelled vehicles with zero emission vehicles, and the efficient use of transport networks, movement of people and freight;

(c) Promote research and development in cooperation with academia and non-governmental bodies, covering carbon-neutral energy technology and fuels, such as hydrogen, access to renewable energy and the switching of energy sources;

(d) Support circular economy related practices and, in doing so, determining the carbon footprint of all types of transport vehicles and transportation infrastructure through life-cycle analysis, as a basis to increase circularity of material use; replacing parts and retrofitting to extend the lifetime of automotive products; and promoting the use of sustainable fuels and ensuring effective recycling, e.g. of batteries.

C. HORIZONTAL OBJECTIVES

19. ITC, through its unique intergovernmental framework, provides comprehensive support to its members and Contracting Parties to the UN inland transport legal instruments in ensuring compatibility between actions aimed at decreasing GHG emissions and actions:

- (a)** prioritizing transport affordability, safety and security;
- (b)** aimed at avoiding negative environmental and health externalities;
- (c)** fostering inclusive transport, and
- (d)** ensuring resilience of transport by making transport infrastructure and operations adapted to climate change.

20. Reaching the above strategic and horizontal objectives will assist in the implementation of the Sustainable Development Goals, in particular: (a) Reduced pollutant and GHG emissions (Sustainable Development Goals 3 and 13); (b) Improved urban mobility and achieving sustainable, inclusive, safe and resilient cities and communities (Sustainable Development Goals 3 and 11); (c) Improved industry innovation and infrastructure efficiency and connectivity (Sustainable Development Goal 9); (d) Affordable and clean energy (Sustainable Development Goal 7); (e) Contribution to economic and social stability by facilitating access to economic opportunities and strengthening connectivity (Sustainable Development Goal 16); (f) Revitalized multi-stakeholder partnerships and knowledge sharing for the achievement of the 2030 Agenda (Sustainable Development Goals 17) – recognizing that the scope of the Strategy extends well beyond 2030 until 2050.



IV. ITC-administered instruments to assist in mitigating climate change

21. Under the purview of the ITC lie 61 United Nations inland transport legal instruments, 49 of which are currently in force. At the time of preparation of this Strategy, 152 United Nations Member States are Contracting Parties to at least one of these legal instruments. In recent years, the total numbers of accessions from outside the ECE region increasingly exceeded those from within the ECE region.

22. Many of the United Nations inland transport legal instruments under the purview of the ITC are instrumental in assisting the quest to curbing the GHG emissions from inland transport and in the transition to more climate friendly inland transport. They cover single or multiple (depending on the local context) areas included in the decarbonization framework.

AVOID

23. The ITC and its subsidiary bodies may contribute to the area of the “avoid” through the development of tools and resource materials such as toolkits, publications and guidelines on increasing transport efficiency. For example, advocating for more transport-oriented and compact urban development and better integration of residential, work and recreational neighbourhoods in cooperation with urban planning can significantly reduce the length of trips and the need for motorized travel in general, while making a positive contribution to active mobility.

SHIFT

24. The United Nations inland transport infrastructure agreements support or have the potential to support the shift to low- and zero-carbon, sustainable transport modes and operations. Agreements such as the European Agreement on Main International Railway Lines (AGC) or the European Agreement on Main Inland Waterways of International Importance (AGN) provide the prerequisites for the necessary infrastructure to enable the modal shift from road to rail and inland waterways. The European Agreement on Important International Combined Transport Lines and Related Installations (AGTC) promotes multimodal transport to alleviate the burden on the European road network and mitigate environmental damages. The Model Rules on the Permanent Identification of Railway Rolling Stock aim at facilitating investment in railway rolling stock to increase the shift from road to rail.

25. Road traffic conventions such as the Convention on Road Traffic (1968) or the Convention on Road Signs and Signals are instrumental for ensuring that decarbonization policies do not simultaneously have a negative impact on road traffic safety. Expanding these legal instruments could further support the shift to cycling by providing a safe environment for cyclists in road traffic.

26. In terms of cycle infrastructure, a convention on cycle route network could be explored on the basis of the ongoing work of WP.5 and THE PEP.

IMPROVE

27. The globally-harmonized United Nations Vehicle Regulations, developed and adopted under the auspices of the Agreement concerning the Adoption of Harmonized Technical United Nations Regulations for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these United Nations Regulations (1958 Agreement), as well as the Global Technical Regulations established according to the Agreement concerning the Establishing of Global Technical Regulations for Wheeled Vehicles, Equipment and Parts which can be fitted and/or be used on Wheeled Vehicles (1998 Agreement) contribute to improving vehicles and their operation. Similarly, the infrastructure agreements under the purview of the ITC, such as the European Agreement on Main International Traffic Arteries (AGR) or the AGTC further contribute to improving inland transport infrastructure. Their climate change mitigation relevance could further be amplified through including additional parameters on the availability of e.g., EV charging infrastructure, including fast chargers, for road vehicles and heavy-duty vehicles (HDVs), or hydrogen refilling stations.

28. ITC administered legal instruments in the field of border crossing facilitation, including the Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention, 1975) and the International Convention on the Harmonization of Frontier Controls of Goods, not only provide guidance on streamlining administrative procedures and remove cross-border technical barriers, but also refer to the infrastructure related lay-out of border crossings, which impact the levels of traffic congestion induced emissions at respective national borders and in border regions. The climate change mitigation relevance of these instruments could be strengthened through including additional provisions or recommendations related to the mandatory use of electronic documents and digital solutions as well as through infrastructure-related adaptations such as the introduction of fast lanes for HDVs equipped with low- and zero-carbon powertrain. Further, the implementation of the Additional Protocol to the Convention on the Contract for the International Carriage of Goods by Road concerning the Electronic Consignment Note would mean that waiting and queuing times at borders for trucks would be reduced, hence reducing GHG emissions, with a great reduction in paper usage for the millions of paper consignment notes created annually.

WAY AHEAD IN CLIMATE CHANGE MITIGATION PROOFING OF THE INLAND TRANSPORT REGULATORY FRAMEWORK

29. In line with the strategic objective to strengthen and, where relevant, further elaborate the United Nations inland transport regulatory framework, the ITC subsidiary bodies should ask by all United Nations Member States, where feasible, aiming to further Contracting Parties to systematically apply climate considerations when considering amendments to the legal instruments, e.g., through regularly updated work plans and a standing agenda item on climate impact assessment in each relevant Working Party. The legal instruments can be updated by Contracting Parties with additional clauses and/or Protocols, and additional legal instruments can be developed in support of the inland transport sector's decarbonization. Opening the legal instruments up for accession/ratification can accelerate accessions from beyond the ECE region, and will enable carrying further, along with their implementation, also their contribution to climate change abatement.

30. To support implementation of the legal instruments more widely and promote the benefits of accession, it is indispensable to provide, under the auspices of the ITC's institutional framework, capacity development and policy advice. In addition, ITC and its subsidiary bodies will aspire to further support the contribution of the legal instruments to climate change mitigation by developing respective analytical and technical guidance materials.



V. Initial ITC Climate Action Plan with milestones – ITC to help deliver on climate goals and priorities

31. The below action plan contains initial actions for ITC and its subsidiary bodies to drive the change towards achieving the vision, mission and strategic objectives for curbing GHG emissions from inland transport. It comprises actions for specific ITC bodies, including joint and coordinated actions among them. The actions are organized according to and following the order of the strategic and horizontal objectives (arrows indicate subsequent actions, depending on the results of the previous action). Indicative target years for implementation of each action are provided, which ITC can adjust depending on progress achieved.

32. The action plan should serve as a living document. ITC will adjust and/or include therein additional actions during the plan's biennial review based on proposals made by its subsidiary bodies while completed actions will no longer be reflected in it. Actions targeting feasibility assessments will be considered by ITC or its subsidiary bodies based on the results stemming from these assessments so that follow-up actions are either implemented or terminated. In this way, ITC will manage this action plan.

Action number	Specific action	Target year	Related Objective(s)	ASI pillar addressed	Responsible bodies
1	Assess regularly actions taken in support of implementation of this Strategy, and address climate change whenever feasible, through annual sessions or dedicated seminars or workshops and report it	From 2024, annually	A. / C.	Avoid/Shift/ Improve	ITC and all its subsidiary bodies
2	Assess the feasibility and potential benefits of traffic reduction measures towards provision of options for Member States to draw from in developing their own national strategies	2027	A.(a) / C.	Avoid	ITC / WP5
3	Assess the feasibility and potential benefits of modal shift goals, if appropriate for individual Member States when developing their own national strategies, in cooperation with all relevant stakeholders (i.e. shippers and logistical companies)	2027	A.(a) / C.	Shift	WP5 / WP.24 / SC.1 / SC.2/ SC.3

Action number	Specific action	Target year	Related Objective(s)	ASI pillar addressed	Responsible bodies
4	Take stock of existing policies or current efforts to reduce GHG emissions of vehicles. Explore the potential to harmonize regulatory tools among relevant markets, or to set tailpipe reduction targets for countries, if appropriate for them	2026	A.(a) / C.	Improve	WP.29
5	↳ If relevant, set tailpipe GHG emission reduction target	2028	A.(a) / C.	Improve	WP.29
6	Enable hybrid attendance and participation, including for decision making purposes	2027	A.(a)	Avoid	All subsidiary bodies
7	Provide analytical input to enhance infrastructure standards to make road, rail and waterways networks resilient to climate change	2030	A.(a) / A.(c) / C.	Adapt	WP.5/GE.3
8	Consider additional parameters in the AGTC assisting electrification or use of alternative fuels or energy solutions at the network and amend the instrument if appropriate	2035	A.(a)	Improve	WP.24
9	Accelerate accession and implementation of the AGC/AGTC AGTC-Protocol so that intermodal transport infrastructure is developed, enabling a shift to rail or inland waterways and monitor progress in infrastructure improvements	2040	A.(a)	Shift/ Improve	WP.24/SC.2/ SC.3
10	Enable instruments similar to AGTC for use by United Nation Member States from outside of ECE region	2040	A.(a)	Shift/ Improve	WP.24/SC.2/ SC.3/WP.5
11	In terms of cycling infrastructure, consider, if appropriate, a new Convention on cycling route networks, taking into account the work of WP.5 and THE PEP	2027	A.(a) / C.	Avoid/Shift/ Improve	WP.5
12	Assess the feasibility and potential benefits of developing a succinct GHG template to be attached to decisions taken by WPs to assess the effect of decisions by the ITC and subsidiary bodies on GHG emissions	2026	A.(b)	Avoid/Shift/ Improve	ITC
13	↳ If implemented, provide an analysis of the expected contributions of decisions by the ITC and its subsidiary bodies on GHG emissions	2028	A.(b)	Avoid/Shift/ Improve	ITC

Action number	Specific action	Target year	Related Objective(s)	ASI pillar addressed	Responsible bodies
14	Establish partnership with GEF / GCF, among other United Nations funds to become an implementing agency	2028	A.(b)	Avoid/Shift/ Improve	ITC
15	Assess the feasibility of the preparation and benefits resulting from the availability of national, subregional/regional inland transport decarbonization action plans	2026	A.(b)	Avoid/Shift/ Improve	ITC
16	↳ Establish, if appropriate, partnership with UNFCCC on potential complementarities between “inland transport decarbonization action plans” and UNFCCC’s “NDCs”	2028	A.(b)	Avoid/Shift/ Improve	ITC
17	Hosting the ITC events on climate change in the sidelines of the annual sessions, as appropriate and addressing climate change during high-level policy forums, as appropriate	From 2025 onwards	A.(c)	Avoid/Shift/ Improve	ITC
18	Elaborate and support implementation of policy recommendations surrounding low- and zero-carbon technologies, such as electric vehicles and their charging infrastructure for passenger, freight and intermodal movements	2028	A.(c)	Avoid/Shift/ Improve	WP.5/WP.24/ WP.29/SC.1
19	Elaborate policy solutions for Mobility as a Service (MaaS) for passenger movement	2030	A.(c)	Avoid/Shift/ Improve	WP.5
20	Elaborate policy solutions for minimizing ‘empty runs’ and to create incentives for transport users to make informed choices and for operators to optimize their services	2035	A.(c)	Avoid/ Improve	SC.1/SC.2/ WP.24/WP.5
21	Elaborate policy solutions for intermodal city logistics, urban physical internet	2035	A.(c) / C.	Improve	WP.5/WP.24
22	Assess the feasibility and potential benefits of defining intermediate targets (2030/2040) for achieving net zero GHG emission by 2050 by inland transport GHG emission reduction target	2026	A.(c)	Avoid/Shift/ Improve	ITC

Action number	Specific action	Target year	Related Objective(s)	ASI pillar addressed	Responsible bodies
23	↳ If relevant, explore and propose goals and pathways for GHG reduction in inland transport for the short-(2030), medium (2040)-, and moving towards net zero by 2050 and, if and where appropriate, include these, along with national policies, in inland transport decarbonization action plans to be shared at the ITC	From 2026	A.(c)	Avoid/Shift/ Improve	ITC
24	Manage inland transport GHG emissions data (considering different modes and energy types)	2028	A.(c)	Avoid/Shift/ Improve	WP.6
25	Work towards efficient and seamless multimodal transport data and information digitalization and monitor progress	2040	A.(c)	Shift/ Improve	WP.24
26	Develop methodological and analytical tools to support national efforts further to and based on existing tools such as For Future Inland Transport Systems (ForFITS), Sustainable Inland Transport Connectivity Indicators (SITCIN), and the International Transport Infrastructure Observatory (ITIO-GIS)	From 2024 onwards	A.(c)	Avoid/Shift/ Improve	ITC and all its WPs
27	Develop and support uptake of guidance for vulnerability assessment/stress tests of transport asset to climate change hazard and for effective adaptation programmes e.g. adaptation pathways	2027	A.(c)	Adapt	WP.5/GE.3
28	Develop and support uptake of guidance on asset/network criticality assessment for adaptation	2027	A. (c)	Adapt	WP.5/GE.3
29	Optimize infrastructure networks by better utilization of ITS or traffic management system for road, rail, intermodal transport	2030	A.(c)	Avoid/ Improve	SC.1/SC.2/ WP.24
30	Work towards reducing pathing conflicts by elaborating solutions for equal and fair use of the railway network by freight and passenger transport	2030	A.(c)	Improve	SC.2/WP.24

Action number	Specific action	Target year	Related Objective(s)	ASI pillar addressed	Responsible bodies
31	Ensure the safe and secure deployment of low- and zero-carbon modes, technologies for vehicles and their charging infrastructure	Continuous	A.(c) / C.	Shift / Improve	WP.15/ WP.29, with contributions from WP.1, WP.5 and other WPs
32	Develop globally harmonized methodology to determine the carbon footprint of vehicles from cradle-to-grave	2025	A.(c) / C.	Improve	WP.29/GRPE, with support from other WPs
33	Elaborate possible solutions to improve material and resource efficiencies in the mobility value chains such as sustainable batteries, in the design, production, use and the end-of-life stages.	2027	A (c)	Improve	WP.5 / WP.29/ GRPE



VI. Resource mobilization for the delivery of this Strategy

33. Regular budget resources provided by member States to the ECE Transport subprogramme will continue to fund staff to service and update the existing legal instruments under the ITC's purview and develop new ones. The Working Parties and the secretariat will schedule their activities to evenly distribute the workload according to the initial ITC Climate Action Plan as well as resources available. Taking experience from globalized WP.1, WP.29 and WP.30, no budget implications are foreseen with expansion of Contracting Parties to the legal instruments under the purview of those Working Parties. The intergovernmental support provided by the ITC and its subsidiary bodies will further support the exchange of information and experiences in support of this Strategy.

34. While the implementation of this Strategy in the Working Parties will be supported by regular budget resources, implementation action, in particular relevant research activities, could be accelerated through additional extrabudgetary resources to be raised, among others, from developed countries.

35. A strong response towards a low- and zero-carbon pathway would require small island developing states, least developed countries and land-locked developing countries to be provided with capacity-building, voluntary technology transfer and access to climate change funding.

36. The availability of voluntary extrabudgetary resources, including additional staff for the expansion of capacity-building activities, would facilitate the delivery of activities in line with strategic objective A.(c) of this Strategy. A process should be put in place, as relevant and appropriate, to enable accelerated research and analysis as well as capacity-building through voluntary extrabudgetary resources.



VII. Partnerships

37. The implementation of this Strategy will be pursued in close cooperation with partners, building on and enhancing existing partnerships with key stakeholders. More generally, the ITC will aim to provide a platform for successful collaborations between stakeholders inside and outside the inland transport sector to make use of the knowledge acquired within the sector and in other sectors and to identify effective, innovative and tailored solutions for mitigating climate change by the sector.

38. In pursuing decarbonization efforts, ITC and its members will seek to enhance global partnerships with **other United Nations organizations, departments and bodies** engaged in transport, including but not limited to the UNFCCC; United Nations Environment Programme, World Health Organization and its European Centre for Environment and Health, including the Transport, Health and Environment Pan-European Programme (THE PEP), World Meteorological Organization, International Telecommunication Union, and International Labour Organization by exchanging information, mutually participating in events, considering synergies and possible joint or coordinated actions.

39. Partnership with the **UNFCCC** will be pursued in particular through the exchange of information and the provision of guidance and reports in connection with the actions and KPIs of the Strategy. The inland transport decarbonization action plans, containing national strategies and GHG emission reduction commitments by ITC members, will be a means to guide United Nations Member States on enhancing GHG emission reductions, by covering the full range of available mitigation options, along the “avoid, shift and improve” pillars, as appropriate. The information contained in these plans can be included by Member States in their NDCs and LTS under the framework of the UNFCCC. Moreover, the policy discussions during the ITC events on climate change, which may take place during the annual ITC sessions in February, will provide guidance on topical inland transport climate policy issues to be addressed at the UNFCCC meetings of the Conferences of the Parties, held towards the end of each year.

40. Within the **United Nations secretariat**, enhanced partnership will be sought with the **Department of Economic and Social Affairs (DESA)**, and all **other United Nations regional commissions**. ITC and its subsidiary bodies will also aim at further building upon existing cooperation with **other ECE Sectoral Committees**, incl. the Committees on Urban Development, Housing and Land Management, Environmental Policy and Sustainable Energy. For example, ITC might engage urban mobility actors, via the ECE Forum of Mayors, to trigger wide policy change to reach GHG emissions reduction. The need for low-/zero-carbon energy, the joint deployment of vehicles and infrastructure to use and distribute such low- and zero-carbon energy and global standard-setting that supports interaction between transport and energy to ensure a future proof legislative framework, which helps to unlock the potential of solutions in the mobility-energy interface, will require closer collaboration with energy sector specialists, including experts under the Committee on Sustainable Energy, for example through activities of the Working Party on Transport Trends and Economics (WP.5).

41. Cooperation with **ICAO and IMO** will also be further explored in view of exchanging information and seeking mutual inspiration in the implementation of respective climate change mitigation strategies and approaches to emission reductions, across the inland transport, aviation, and maritime sectors.

42. Partnerships with the **international financial institutions** will also be developed, in particular to gain access to additional funding sources for inland transport decarbonization capacity-building and technical assistance projects in specific countries or regions. Such partnerships will be further explored by the ITC with the Global Environment Facility (GEF), the Green Climate Fund (GCF), the World Bank Group or other international and regional financial institutions.

43. Naturally, the ITC will continue to pursue its close cooperation with **regional integration organizations** such as the European Union and the Eurasia Economic Union.

44. In fostering implementation of the Strategy, ITC will continue to cooperate closely with **intergovernmental transport organizations/forums**, including the Group of Seven (G7), the Group of 20 (G20), the International

Transport Forum (ITF), the International Organizations for International Carriage by Rail (OTIF), the Organization for Cooperation of Railways (OSJD) and the river basin commissions.

45. Furthermore, partnerships will be developed with **non-governmental/civil society organizations**, such as International Road Transport Union (IRU) and International Union of Railways (UIC). At the ITC sessions, a new agenda item for pursuing a dialogue with non-governmental organizations will be introduced. This will provide a means for non-state actors to share information on efforts to support decarbonization, in addition to the regular inter-governmental dialogue under the Committee's purview. Working Parties and Administrative Committees will equally continue their regular information-exchange with relevant organizations and initiatives to consider and where feasible, enhance synergetic action.

46. ITC and its subsidiary bodies will partner with several decarbonization initiatives, aiming to amplify the impact of this Strategy, namely:

(a) Breakthrough Agenda launched at the UNFCCC twenty-sixth meeting of the Conference of the Parties (CoP-26), with its priority actions, agreed at the twenty-seventh meeting of the Conference of the Parties (CoP-27), which comprises various actors of international road transport sector decarbonization initiatives;

(b) Accelerating to Zero Coalition launched at CoP-27, working towards all sales of new cars and vans being zero emission globally by 2040 and by no later than 2035 in leading markets.

47. Implementing the Strategy will naturally imply a continued close engagement with **transport companies and vehicle manufacturers** – for example, Electric Vehicle manufacturers, who are best suited to implement procedures which are carbon neutral and determine efficient ways to repurpose, reuse, or recycle batteries at the end of life.

48. Involving more **academic researchers**, who understand climate change, transportation resilience, and the need for mitigation, as well as innovation, research and development and targeted economic instruments with the Committee's Groups of Experts, will also be conducive to furthering their climate change related activities supportive of this Strategy's implementation.



VIII. Periodic review

49. This Strategy will be subject to a five-yearly review, with the first review due in 2029.

50. The ITC will centrally coordinate the review, including defining its scope and terms of reference. On this basis, ITC will review the Strategy to take stock of the progress made in implementing the strategic objectives and action plan, consider setting new objectives, and determine new actions and targets. The Strategy shall be adapted to the latest knowledge available (e.g. from the latest reports of the IPCC) on the decarbonization of the inland transport sector, based on biennial in-depth reports on climate change and inland transport.

51. ITC's subsidiary bodies will regularly monitor the implementation of this Strategy and consider opportunities for enhanced actions by themselves, and in cooperation with other Working Parties or Administrative Committees. They will report on such actions taken biennially to the ITC, to inform ITC on progress achieved in the actions assigned. Such a role on cross-cutting themes could be played by WP.5 in cooperation with other relevant Working Parties or Administrative Committees.

ITC Strategy on Reducing Greenhouse Gas Emissions from Inland Transport

The Inland Transport Committee (ITC) of the United Nations Economic Commission for Europe (UNECE) adopted its Strategy on Reducing Greenhouse Gas Emissions from Inland Transport (ECE/TRANS/344, annex I) at its eight-sixth session (Geneva, 20-23 February 2024).

The Strategy pronounces ITC's vision to take urgent action to assist its member States and Contracting Parties to United Nations legal instruments under its purview in achieving the aspirational goal of net zero greenhouse gas emissions from inland transport by 2050. ITC, as a UN platform for inland transport, provides a comprehensive regulatory framework for inland transport, comparable to the role of the International Maritime Organization (IMO) and International Civil Aviation Organization (ICAO).

The Strategy sets the mission to contribute to decarbonization of inland transport by its member States and Contracting Parties to United Nations legal instruments under ITC's purview through enhanced regulatory support, intergovernmental policy dialogue, and increased coordination and partnership among all relevant stakeholders.

The Strategy provides strategic objectives for ITC and its subsidiary bodies, as well as the inland transport sector, and an initial climate action plan with milestones. It organizes the work on decarbonizing inland transport around a broad decarbonization framework that draws on avoid-shift-improve measures and also links it with making transport systems resilient ('adapted') to the risks of climate change.

With the decision to adopt the Strategy, ITC requested its subsidiary bodies to implement the initial ITC climate action plan and through it advance the implementation of the Strategy. The implementation of the Strategy will be pursued in close cooperation with partners, building on and enhancing existing partnerships with key stakeholders.

Information Service
United Nations Economic Commission for Europe

Palais des Nations
CH - 1211 Geneva 10, Switzerland
Telephone: +41(0)22 917 12 34
Fax: +41(0)22 917 05 05
E-mail: unece_info@un.org
Website: <http://www.unece.org>