



Achieving Climate Goals Through Holistic Transport and Energy Decarbonisation

Thursday 3 October | 10:30 - 12:30



United Nations
Climate Change



Agenda

1. **Welcome and framing**
2. **Achieving Climate Goals in the Transport and Energy Sectors: Where do we stand?**
3. **Holistic Transport and Energy Decarbonisation Strategies: Good practices, solutions and examples**
4. **Debrief Panel: Highlights from the World Café, learnings and challenges**
5. **Closing remarks: Way forward**

Welcome and framing

Rana Adib
Executive Director,
REN21



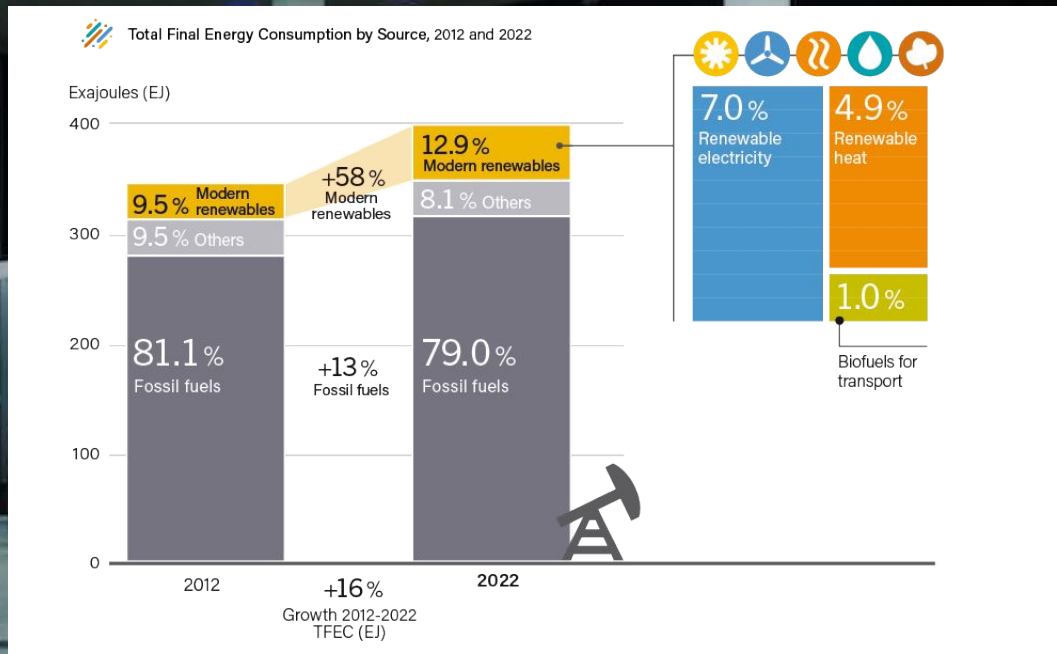
Renewables for Sustainable Transport

GLOBAL OVERVIEW

Rana Adib
REN21 Secretariat



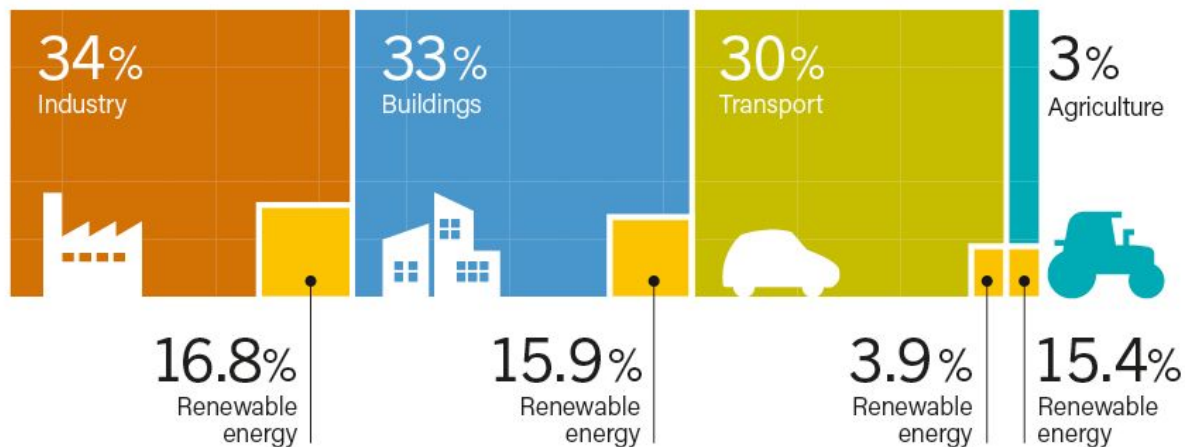
THE WORLD IS BURNING MORE FOSSIL FUELS THAN EVER



RENEWABLES UPTAKE IN THE FOUR DEMAND SECTORS

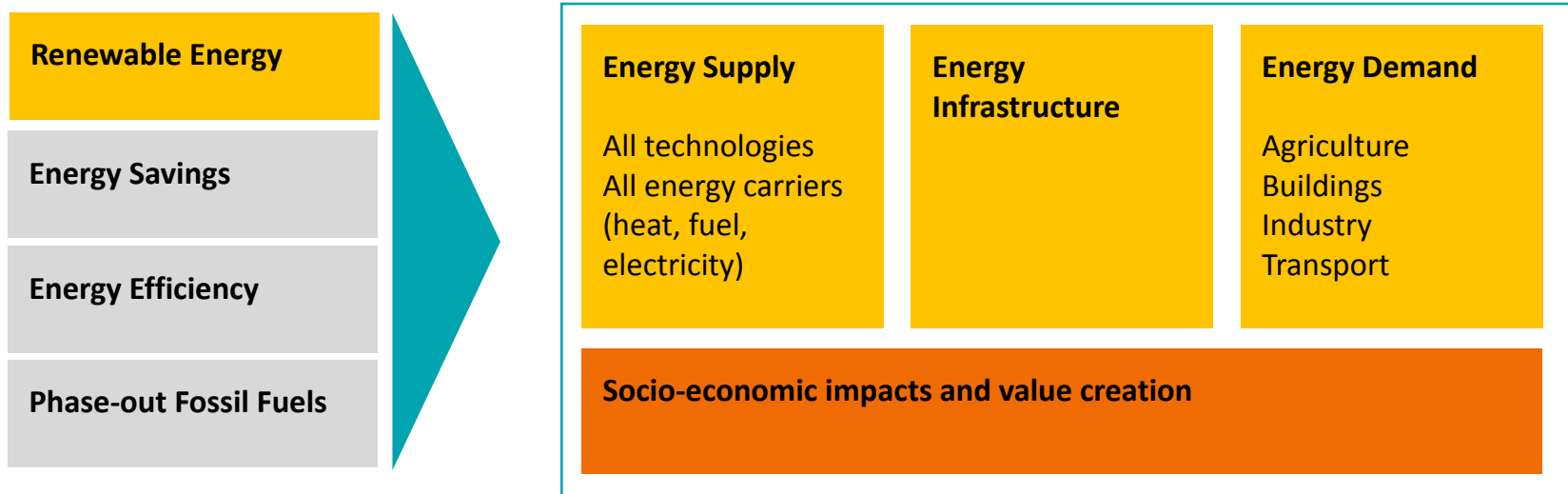
TRANSPORT IS LAGGING BEHIND

 Renewable Share of Total Final Energy Consumption, by Sector, 2021



Source: IEA

OUR SYSTEMS APPROACH TO RENEWABLE ENERGY



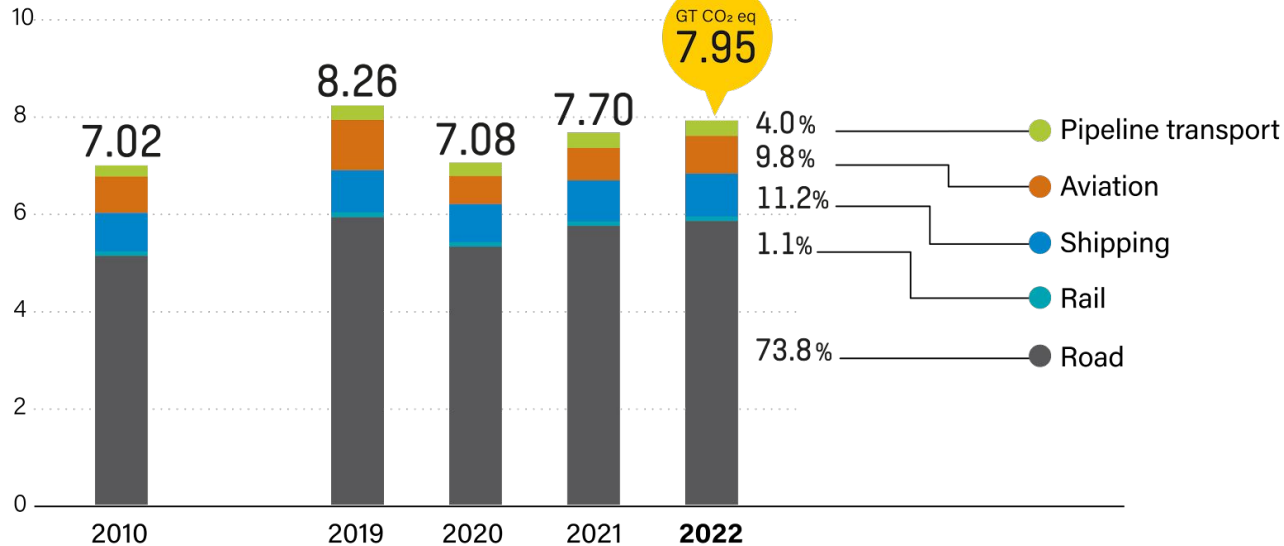


THE STATUS OF RENEWABLES IN TRANSPORT

EMISSIONS FROM TRANSPORT ARE INCREASING

THE SECTOR IS RESPONSIBLE FOR AROUND 20% OF TOTAL GLOBAL EMISSIONS

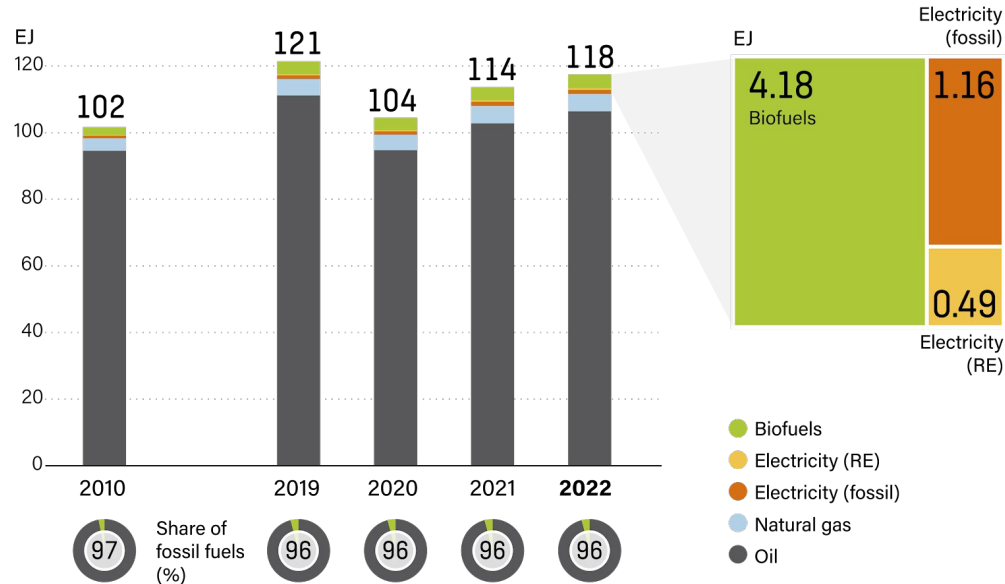
Transport GHG Emissions GT CO₂ eq



Source: IEA

ENERGY DEMAND IN TRANSPORT IS RISING


BUT STILL PREDOMINANTLY COVERED BY OIL-BASED FUELS



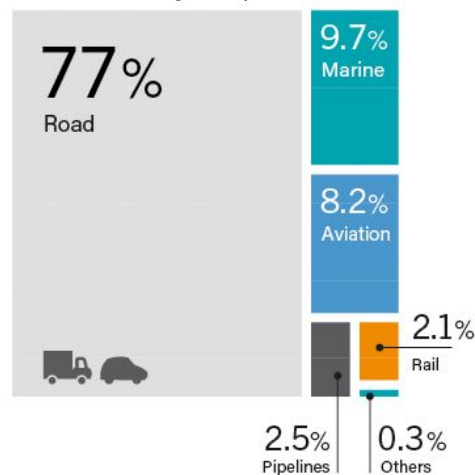
Source: IEA

ENERGY-INTENSIVE SECTORS HAVE THE LOWEST RENEWABLE SHARES

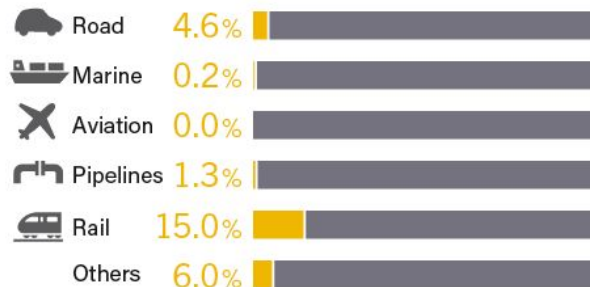
MARINE TRANSPORT AND AVIATION ARE ADVANCING SLOWLY

 Shares of Total Final Energy Consumption (TFEC) and Renewable Energy in Transport, by Sub-Sector, 2021

Share of TFEC by transport sub-sector



Share of renewable energy by transport sub-sector



Source: IEA, REN21

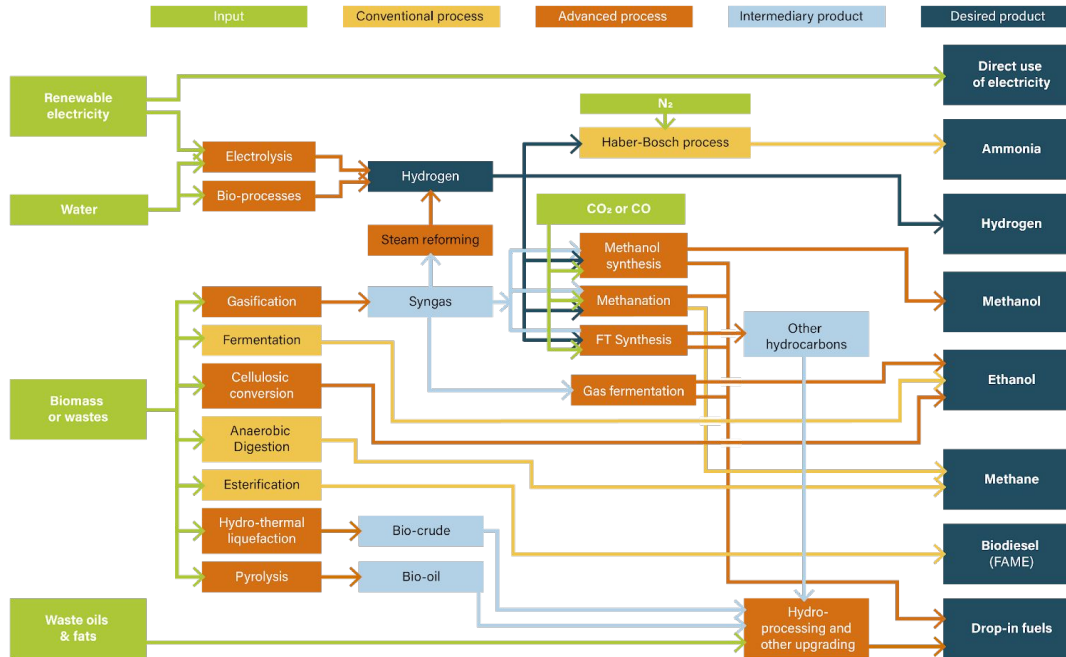


**BRIDGING TRANSPORT AND RENEWABLES
TO ACCELERATE DECARBONISATION**



Capturing the current thinking about the future, the GFR examines **divergent perspectives** to build common ground.

RENEWABLE PATHWAYS FOR TRANSPORT



Many routes and diverse entry points exist to reduce carbon emissions and fossil fuel use in the transport sector.

Source: REN21

AVOID, SHIFT AND IMPROVE!

AVOID

Avoid or reduce the need for motorised transport

- Transport demand management
- Mixed-use, transit-oriented development
- Active transport (e.g. walking, cycling)
- Optimised supply chains

SHIFT

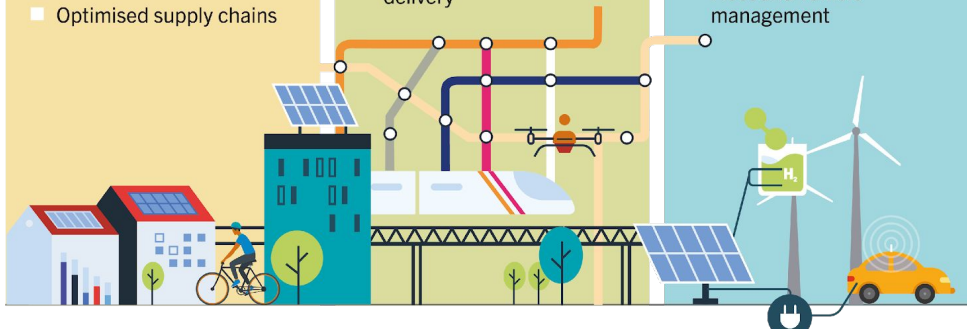
Shift to more efficient, less carbon intensive modes

- Public transport, intercity and high-speed rail and new mobility services (powered by renewable energy)
- Energy efficient logistics modes and last-mile delivery

IMPROVE

Improve efficiency, vehicle technology and fuels

- Fuel economy
- Renewable fuels (e.g. sustainable biofuels, renewable electro-fuels)
- Renewable-based electric vehicles
- Fleet and vehicle management

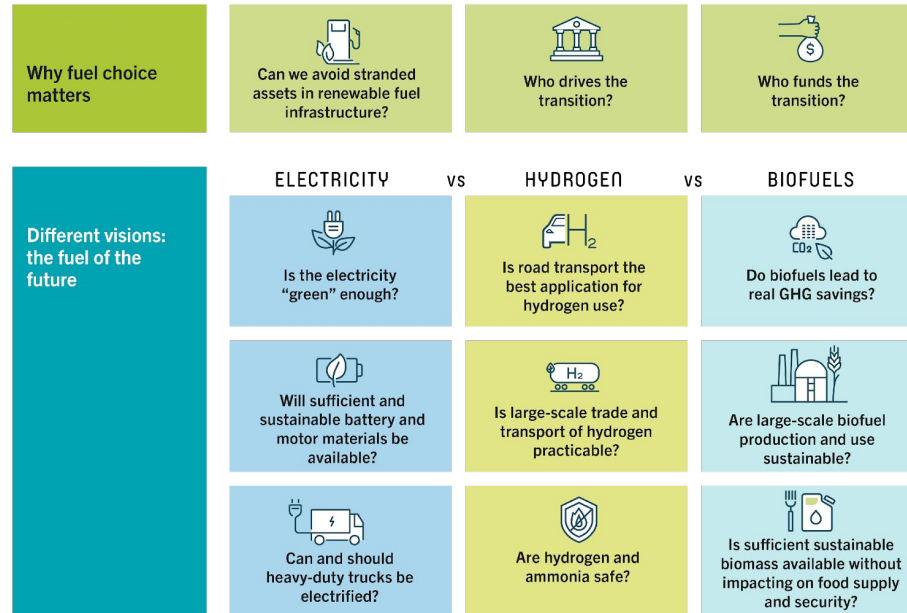


Source: REN21

To help transition to a sustainable transport economic system, the Avoid-Shift-Improve (ASI) approach needs to be adopted **beyond the transport sector.**

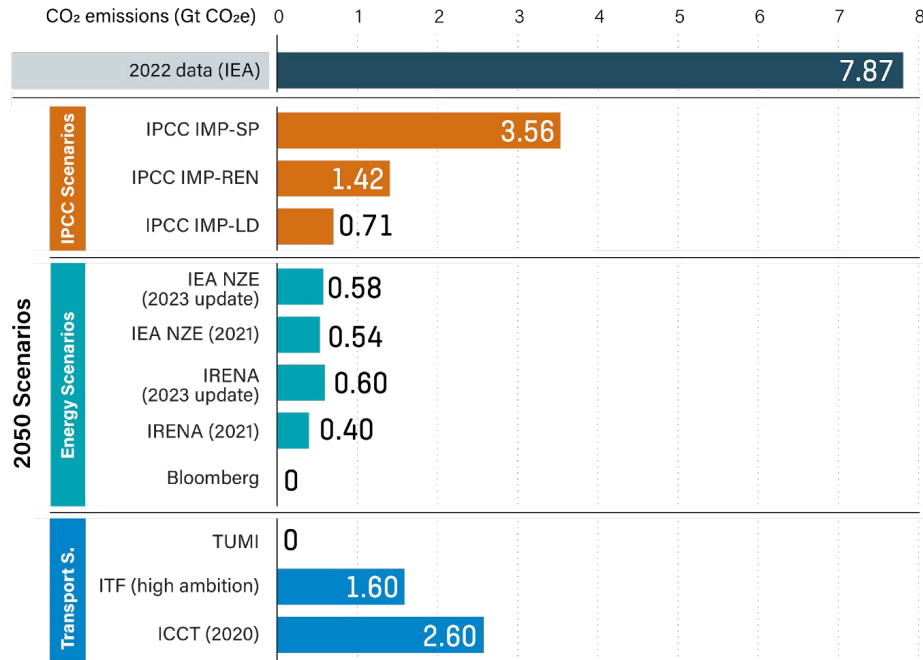
DIVERGENT VISIONS FOR THE TRANSITION TO SUSTAINABLE TRANSPORT

Overview of tension points



The largest disagreements among experts are around the **question of what the “right” fuel mix will be** for a future low-carbon transport system.

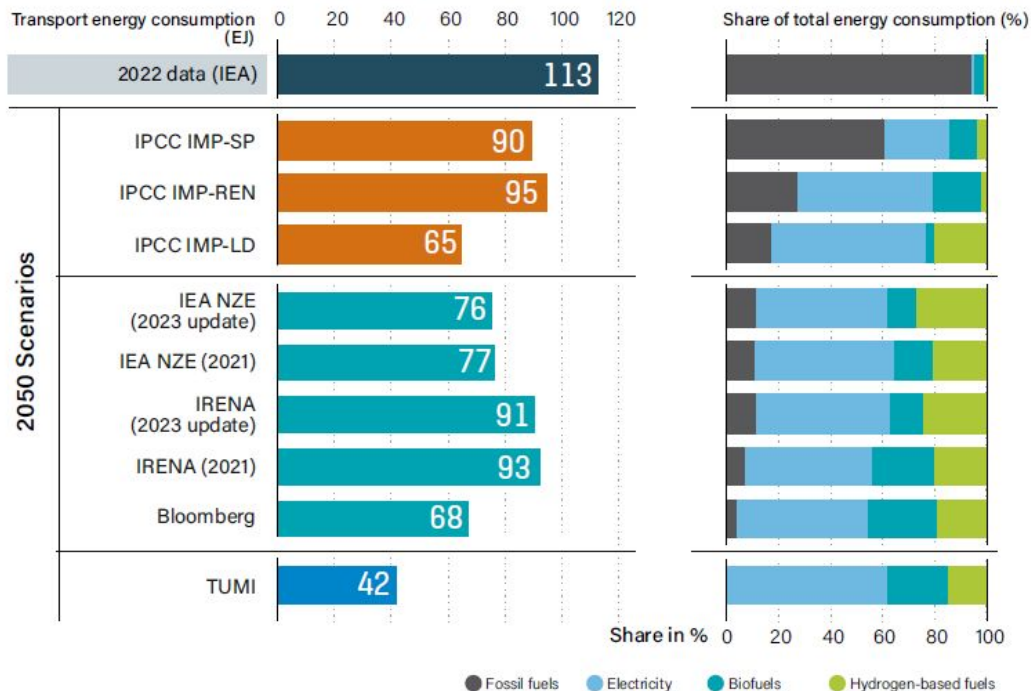
DIFFERENT VISIONS FOR THE FUTURE



Expected remaining GHG emissions in 2050 vary in different 1.5°C scenarios.

Source: Based on REN21 analysis of data in studied scenarios

DIFFERENT VISIONS FOR THE FUTURE



A comparison of different 1.5°C scenarios shows some clear **differences in energy use and fuel choices by 2050**, depending on the assumptions made.

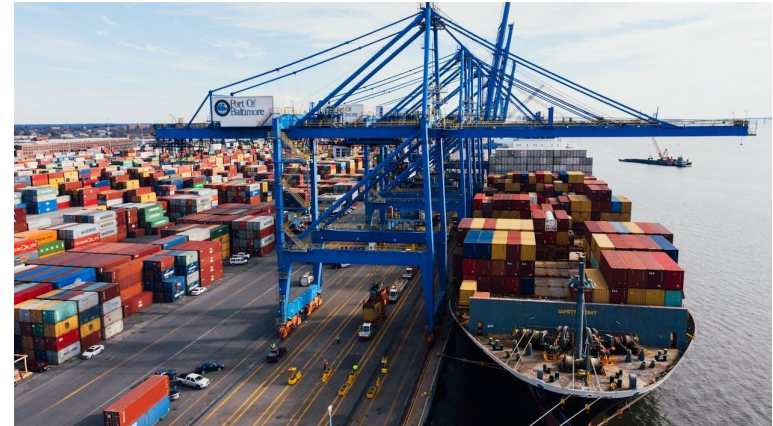
Source: Based on REN21 analysis of data in studied scenarios

DIFFERENT VISIONS FOR THE FUTURE

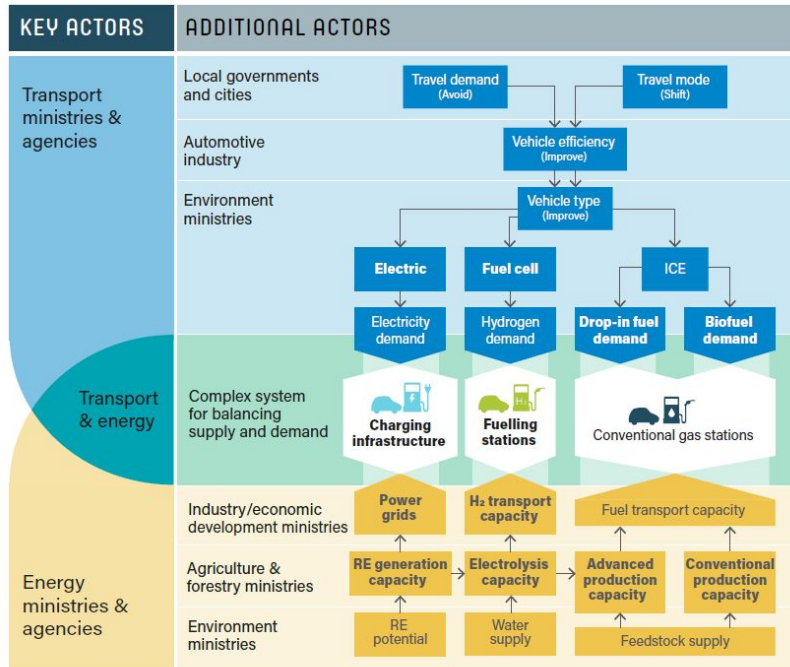
WHICH FUELS AND WHICH FUEL MIX?

- Fuel choices in transport
 - significant impact on emissions
 - security of supply differs
 - energy infrastructure along supply chain
 - are interdependent with transport modes
 - Different environmental and social impacts

- **Tension points** regarding fuel choices
 - **Who is responsible** – the energy sector or the transport sector?
 - **At what governance level do decisions need to be taken?**



BLINDSPOTS: WHO IS AND FEELS RESPONSIBLE?



Clarifying governance for **integrated energy transport strategies, planning and policies** is key.

Source: REN21

Bold text indicates need for action

Achieving Climate Goals in the Transport and Energy Sectors: Where do we stand?

Current action and ambition in NDCs

Philip Turner

Director of Global Advocacy and Engagement,
SLOCAT



About #FossilFreeTransport

Ahead of COP28, we launched the **Call to Action to double the share of energy-efficient and fossil-free land transport for people and goods by 2030**.

The message from over 60 multi-stakeholder signatories to the Call to Action, including Chile and Colombia, is clear. Even if we fully implement today's commitments to decarbonise transport, emissions from the sector will continue rising.

We need to reverse this trend as under current paradigms, the transport sector is not on track to achieve its climate and sustainability goals. Actions should focus on **shifting to public transport, walking, cycling and rail freight**, as well as **electric vehicles and rail**, while dramatically **increasing the use of renewable and zero emission energy sources** to achieve fossil-free land transport by 2050.



Drastic reductions in emissions and energy demand from land transport



Improved access to integrated land transport systems



Double share of energy efficient and fossil-free forms of transport

[Read the open letter](#)

[Support the call to action](#)

[See supporters](#)

The 2024 Action Agenda: enhanced ambition, capacity and finance

Ahead of COP29, as countries prepare their next Nationally Determined Contributions (NDCs 3.0), our 2024 Action Agenda is focusing what it will take to deliver on the global commitments agreed at COP28 through ambitious and feasible transport targets and measures in NDCs 3.0.

To put transport on a 1.5°C pathway, we need urgent action on ambition, finance and capacity.



[Read our 2024 Action Agenda](#)

*Action for ambition
A race to the top*

**How did the
second generation
of NDCs address
the nine action areas
of the Call to Action?**



Action Area 1

Invest at scale in **public and collective transport, railway, safe walking, cycling** and **micro-mobility** networks and infrastructure.



45% of NDCs
refer to this action area



Bangladesh's NDC

- **Shift from road to rail:** 10% unconditional / 25% conditional modal shift of passenger-km through Bus Rapid Transit, Mass Rapid Transit, multi-modal hubs and other projects.
- **Improving rail infrastructure:** Expansion of rail networks (i.e. double-track construction), introduction of broad gauge and electric locomotives, modern rolling stock.

What does this mean for NDCs 3.0?

In addition to to technology ("Improve" actions), **setting targets for avoiding** unnecessary motorised transport based on proximity and accessibility and for **shifting** to less carbon intensive modes helps **direct and leverage investment needs and projects**.



Action Area 2

Repurpose funds currently going **towards fossil fuels subsidies in transport** or other polluting activities towards more sustainable, low emission and resilient transport of people and goods.



12% of NDCs
refer to this action area



Indonesia's NDC

Succeeded in **removing fossil fuel subsidies to create fiscal space** for education, health, social assistance, and infrastructure, including **renewable energy projects and public transport**.

What does this mean for NDCs 3.0?

Setting a **concrete deadline on how countries will transition away from fossil fuels**, will allow them to set out a **clear strategy on how these revenues will be used to finance sustainable transport** through this reform.



Action Area 3

Implement **integrated land, transport and energy planning and management** approaches.



18% of NDCs refer to this action area



Mexico's NDC

The country's transport strategy aims to **improve the link between urban planning and climate action**, e.g. reclaiming public space for pedestrians and prioritising public transport and non-motorised modes.

What does this mean for NDCs 3.0?

- Establishing appropriate institutional structures to implement **integrated land, transport and energy planning and management at all levels of government**.
- Rolling out **national planning and management frameworks and regulations**.



Action Area 4

Set ambitious **targets** to shift to **electric and zero emissions** light-, medium- and heavy-duty **vehicles** and electrified **rail**.



18% of NDCs refer to this action area



Chile's NDC

- Target for 100% **urban public transport buses to be electric** by 2040.
- **Modal shift to buses and bicycles** from private motorised transport.

What does this mean for NDCs 3.0?

Setting electric vehicle targets for specific public and private sector fleets, zero emission vehicle sales mandates, financial incentives for electrification and **bans on vehicles with internal combustion engines** to drive market momentum.



Action Area 5

Set robust **standards** to increase **vehicle energy efficiency** and reduce **vehicle size and volume**.



45% of NDCs refer to this action area



Argentina's NDC

- Fleet renewal with **truck scrapping** (National Road Plan for 2025 limiting maximum speed for trucks).
- **Vehicle energy efficiency labeling**.
- Renewal of the **bus fleet** from Euro 3 to Euro 5.

What does this mean for NDCs 3.0?

- Rolling out **tailpipe emission-based mandates** requiring vehicle manufacturers to produce and sell a minimum percentage of low- and zero-emission vehicles.
- Setting **vehicle labelling schemes** to inform consumers to buy more energy-efficient vehicles.



Action Area 6

Implement **integrated policies** and **regulations** to **mandate** and **incentivise** the use of **renewable energy**.



72% of NDCs refer to this action area



Azerbaijan's NDC

- **Decarbonisation Master Plan** covering several areas, including low-carbon transport.
- Development of **integrated and decarbonised energy and mobility systems**.

What does this mean for NDCs 3.0?

- **Requiring electric vehicles to be charged with renewable electricity**.
- Setting **tariffs that encourage "smart" charging** at times when renewable electricity generation is at its peak.
- Using **tax incentives**, together with **robust sustainability standards for renewable fuels** to support market development and uptake of renewables in land transport.



Action Area 7



13% of NDCs
refer to this
action area

Enable the **purchase** and **production** of **renewable energy** for **land transport**.



European Union's NDC

The emission trading scheme of the EU will apply a separate **carbon pricing framework to fuel combustion in road transport** among other sectors. Emissions will be priced from 2027 without free allocation.

What does this mean for NDCs 3.0?

By accounting for the negative impacts of fossil fuels and to improve the competitiveness of renewable energy, implementing **carbon pricing** and **emissions trading schemes** can stimulate investment in low-carbon technological innovation and create synergies between energy and transport policies.



Action Area 8



20% of NDCs
refer to this
action area

Strengthen **policies, regulations** and **training** to empower the current workforce in a **just transition towards transport sector-related jobs of the future**.



Colombia's NDC

Colombia prioritizes transport for climate action and outlines a **just transition strategy** for the workforce toward a **resilient, low-carbon economy**, involving workers, employers, and active citizen participation through social dialogue.

What does this mean for NDCs 3.0?

- Mandating inclusive **social dialogue** between workers and their trade unions, employers and governments.
- Engaging the voice and knowledge of workers in **policy co-creation and planning**.
- Rolling out workforce **skilling, training and job placement programmes**.



Action Area 9

Foster **knowledge** and **data sharing**, **peer learning** and **capacity building** for the uptake of sustainable, low-emission and resilient transport of people and goods.



11% of NDCs
refer to this
action area



Eswatini's NDC

Capacity building at the institutional level and community level to mainstream climate change into infrastructure.

What does this mean for NDCs 3.0?

- Establishing **institutions and national focal points** to enhance coordination, monitoring, and communication of climate efforts across sectors and ministries.
- Developing **partnerships between national and sub-national governments and international organisations** to exchange best practices and facilitate knowledge transfer for transport policy development.

What's next for our 2024 Action Agenda:

Action for finance

Transport in climate finance and the Loss & Damage Fund

Facts, figures and guidance about investment needs and opportunities for transport sustainability, decarbonisation, adaptation and resilience in Low- and Middle-Income Countries.

Action for capacity

2030 transport targets and measures

Compendium of target areas and measures that countries can include in NDCs 3.0, including illustrative practices.

- **NDCs Library** - Guidelines, templates, tools and resources from the global transport community.
- **Freight and logistics in the NDCs** by SLOCAT and Kühne Climate Center.
- **Just transition in the NDCs**, by SLOCAT and the International Federation of Transport Workers.

Achieving Climate Goals in the Transport and Energy Sectors: Where do we stand?

Regional and local climate leadership in the energy and transport sectors

Sanjini Nanayakkara
Project Manager III-Research, GCAP



World Café

Holistic Transport and Energy Decarbonisation Strategies:
Good practices, solutions and examples

Holistic Transport and Energy Decarbonisation Strategies: Good practices, solutions and examples

1 Joint transport and energy policies for decarbonisation

- What are some examples of policies and enabling environments that allow for synergies across the two sectors? How can these be scaled in different regions and contexts?
- Where have you seen successful integration and alignment of planning and policy alignment in your countries, and what enabling conditions made these so successful?
- How does your organisation/government work with transport and energy actors to break the barriers hindering climate action? What “wins” and challenges have you experienced?

3 Multi-stakeholder collaboration for climate action

- What does successful multi stakeholder collaboration between transport, energy and climate players look like?
- How can we stimulate collaborative approaches to funding the energy and transport transitions (e.g. between public and private actors)?
- How can we ensure tailored solutions and cross-sectoral collaboration at regional and local levels of government?

2 Just and equitable decarbonisation approaches

- How can cross-sectoral collaboration ensure that decarbonisation efforts in transport and energy happen in a just and equitable manner?
- How can we ensure inclusive decision-making processes when decarbonising energy and transport?

4 Visions for a sustainable future

- What are the major challenges you face in leveraging the opportunity to implement Improve measures in the sector?
- How can we manage to close gaps while continuing to raise ambition in the field of electromobility?

Debrief Panel: Highlights from World Café



Moderated by:

Philip Turner
Director of Global Advocacy and
Engagement,
SLOCAT

Guiding questions:

- What opportunities did you identify for collaboration and policy alignment?
- On the road to COP30, how can we harness these opportunities to achieve climate goals?
- What challenges came up when discussing cross-sectoral synergies? How can we overcome them?
- What visions stood out, and how can we collectively get there?

1 Joint transport and energy policies for decarbonisation

2 Just and equitable decarbonisation approaches

3 Multi-stakeholder collaboration for climate action

4 Visions for a sustainable future

Closing Remarks: Way Forward

Rana Adib
Executive Director,
REN21





Thank you for your attention!

For additional information, contact:



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**Global Climate
Action Partnership**
regional leadership, global change

#FossilFreeTransport

**Call to double the share of
energy efficient and fossil-free
forms of land transport by 2030**

Logos: SLOCAT, REN21, Co-initiators, IDDRI, ITDP, UIC, UTP, WORLD RESOURCES INSTITUTE

Icons: Bus, Walking, Cycling, Wheelchair, Truck, Train