



# **JUST TRANSITION AND OUR PUBLIC TRANSPORT**

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# Key messages

- 1. To confront the socioecological crisis, we will need massive investments in public transport**
  - *Modal shift to public transport*
  - *Publicly owned and operated is key: a Public Pathway out of the climate crisis*
  - *Rail and bus electrification are central components to mitigation strategies*
- 2. Workers are being directly affected by a double process**
  - *Effects of extreme weather events (lack of protections)*
  - *Effects of technological changes in mitigation strategies (electrification)*
- 3. A just transition needs to be a program of action from the bottom-up, and not simply negotiated from above**



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# CUT EMISSIONS WITH PUBLIC TRANSPORT



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# Which photo best represents how you understand climate change and the impacts on public transport?

1.



2.



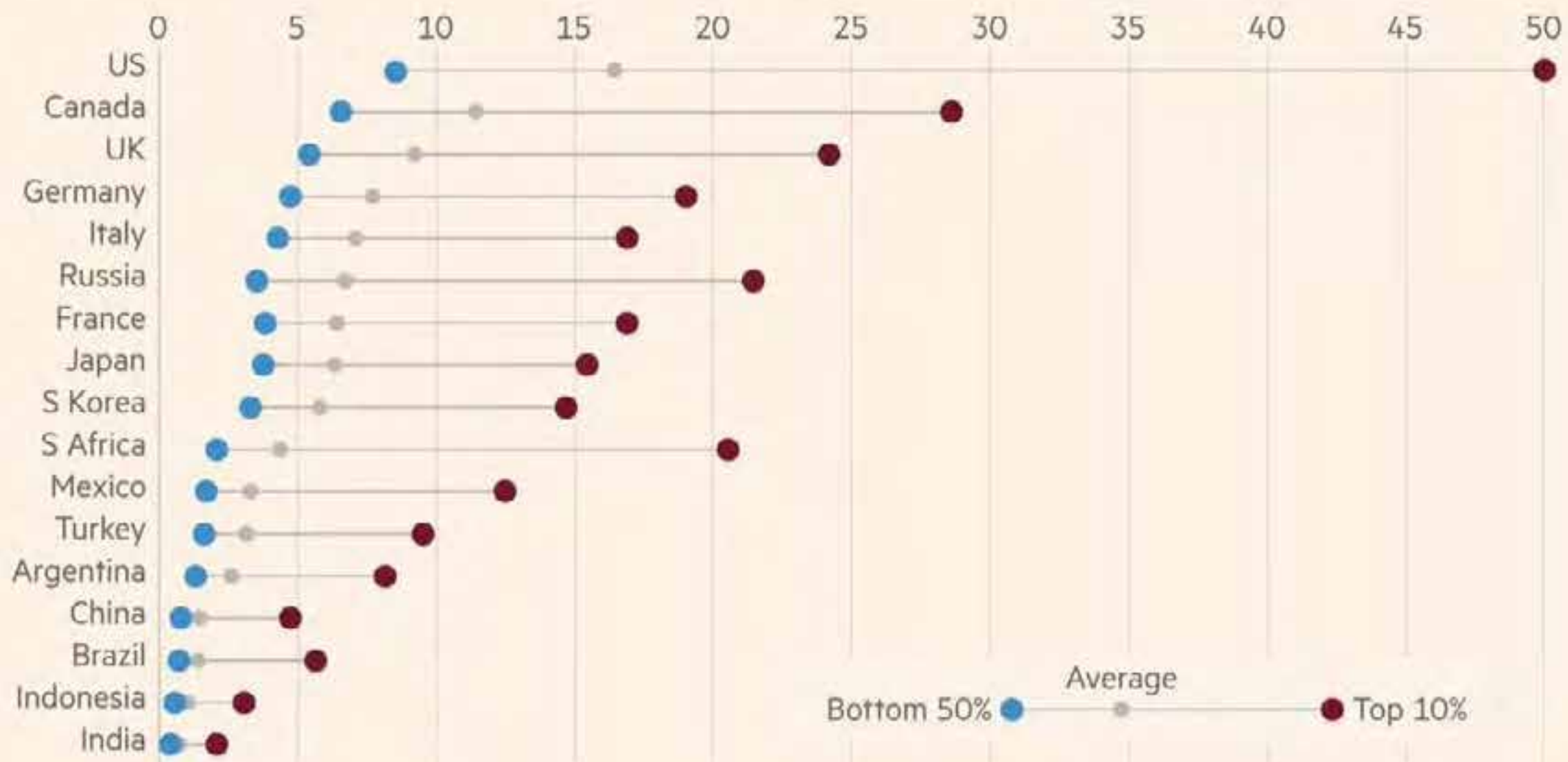
3.



4.



# Household lifestyle consumption emissions (tonnes of CO<sub>2</sub> per capita)\*\*

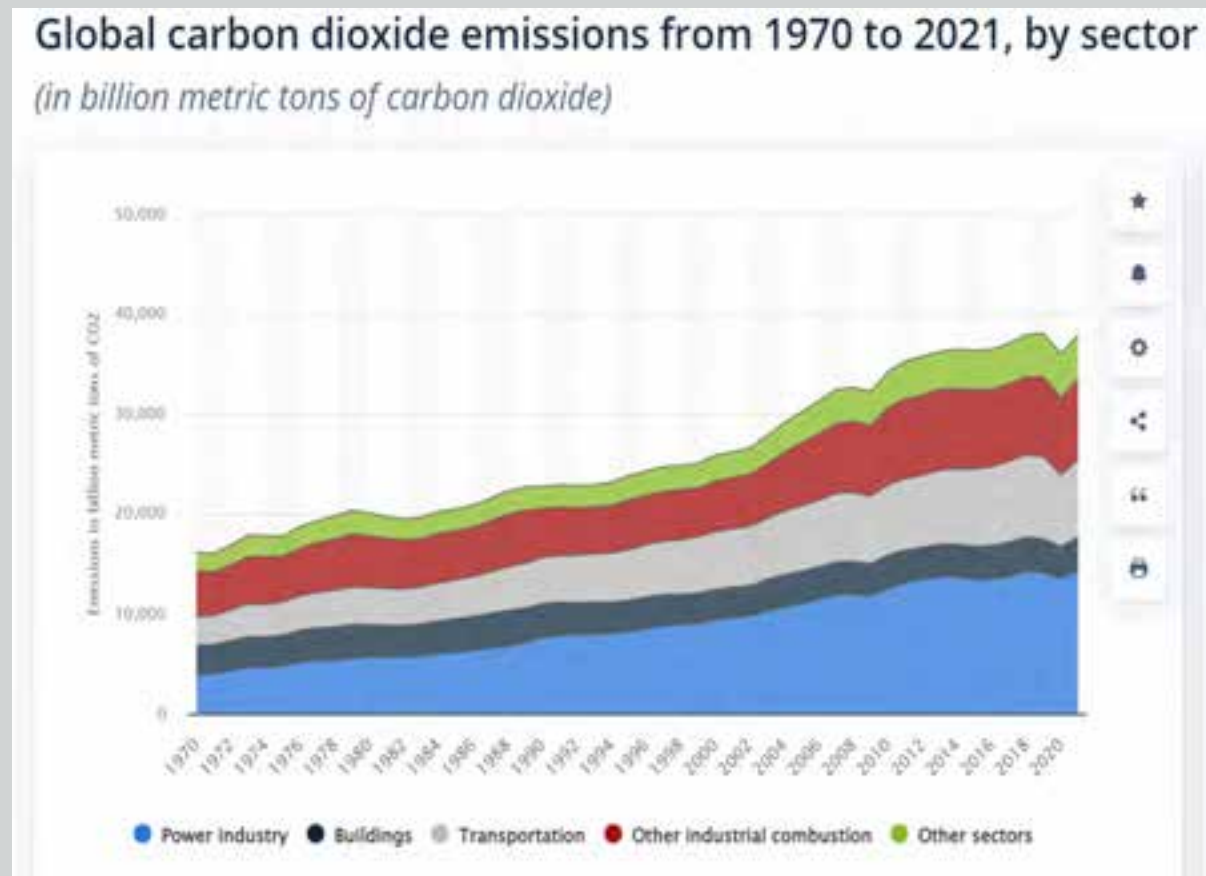


\*\* In G20 countries for which data is available

Visual journalism: Steven Bernard/@sdbernard and Chelsea Bruce-Lockhart/@C\_BruceLockhart

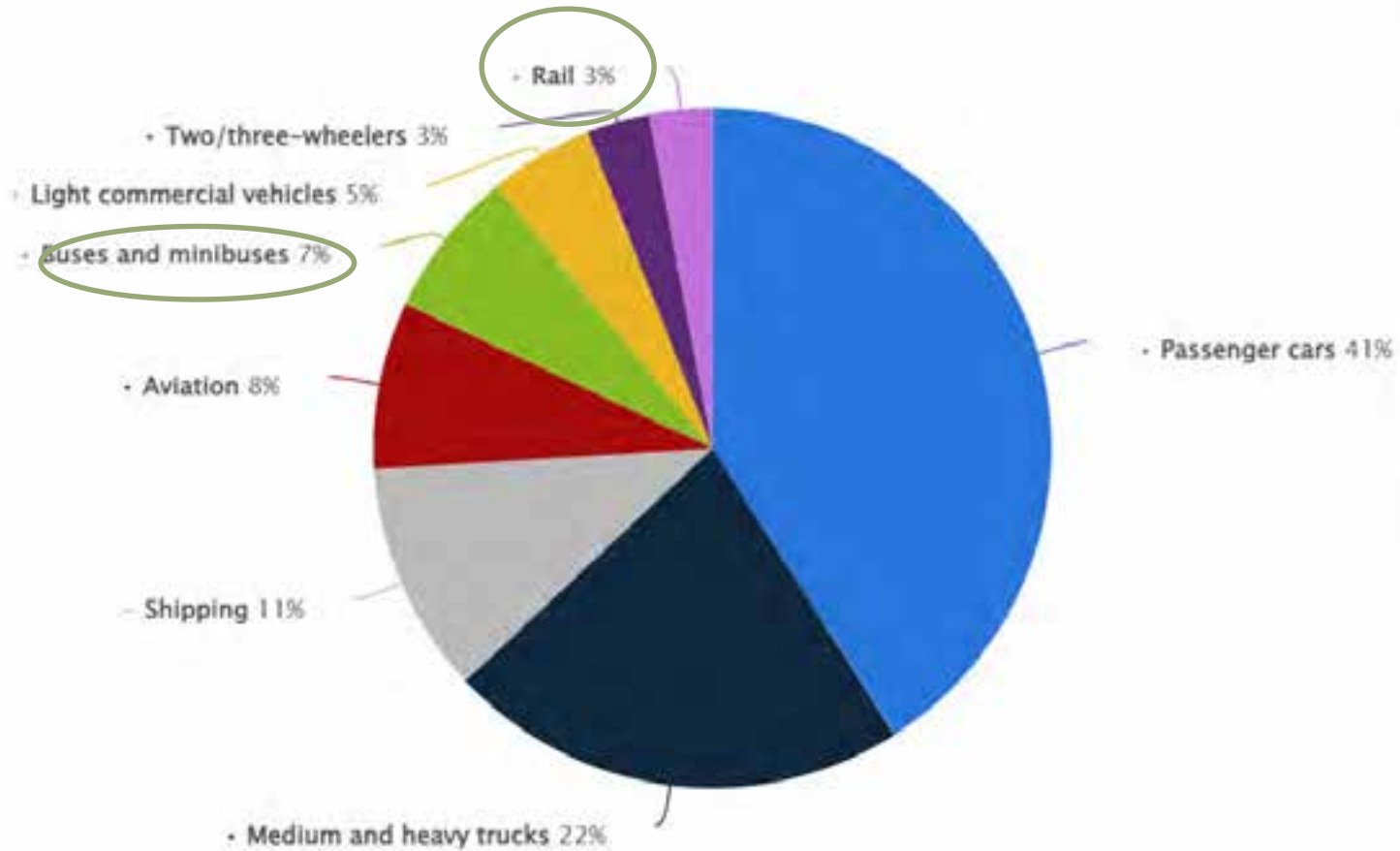
# Transport and climate– why?

Transport emissions over 20% of global carbon emissions



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# Electrification in transport – why?



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# Emissions from road transport



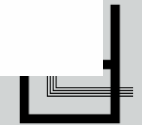
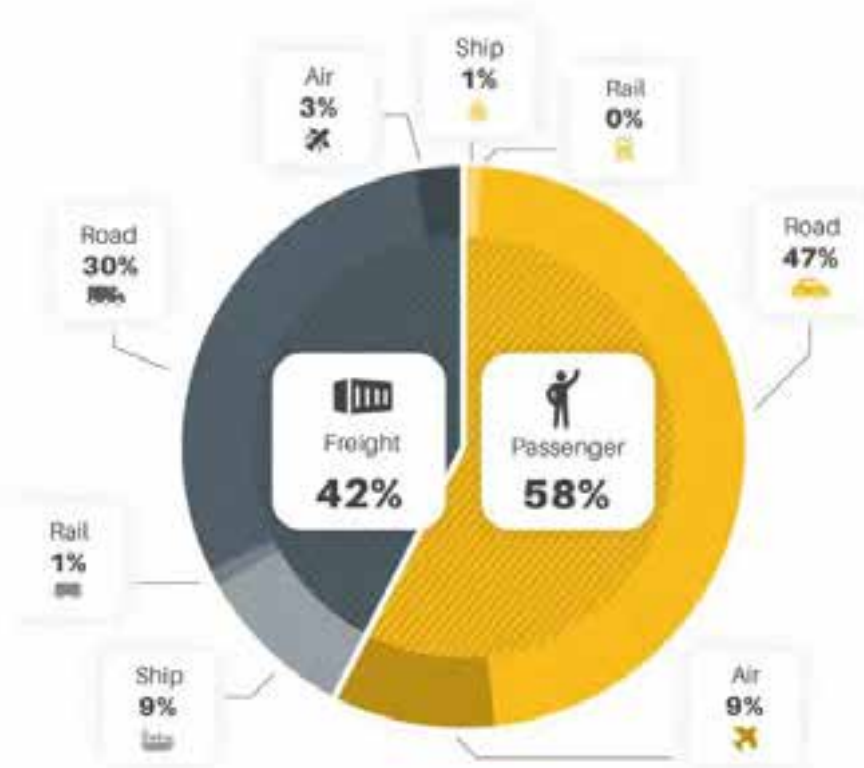
## Freight plays an increasing role in transport CO<sub>2</sub> emissions



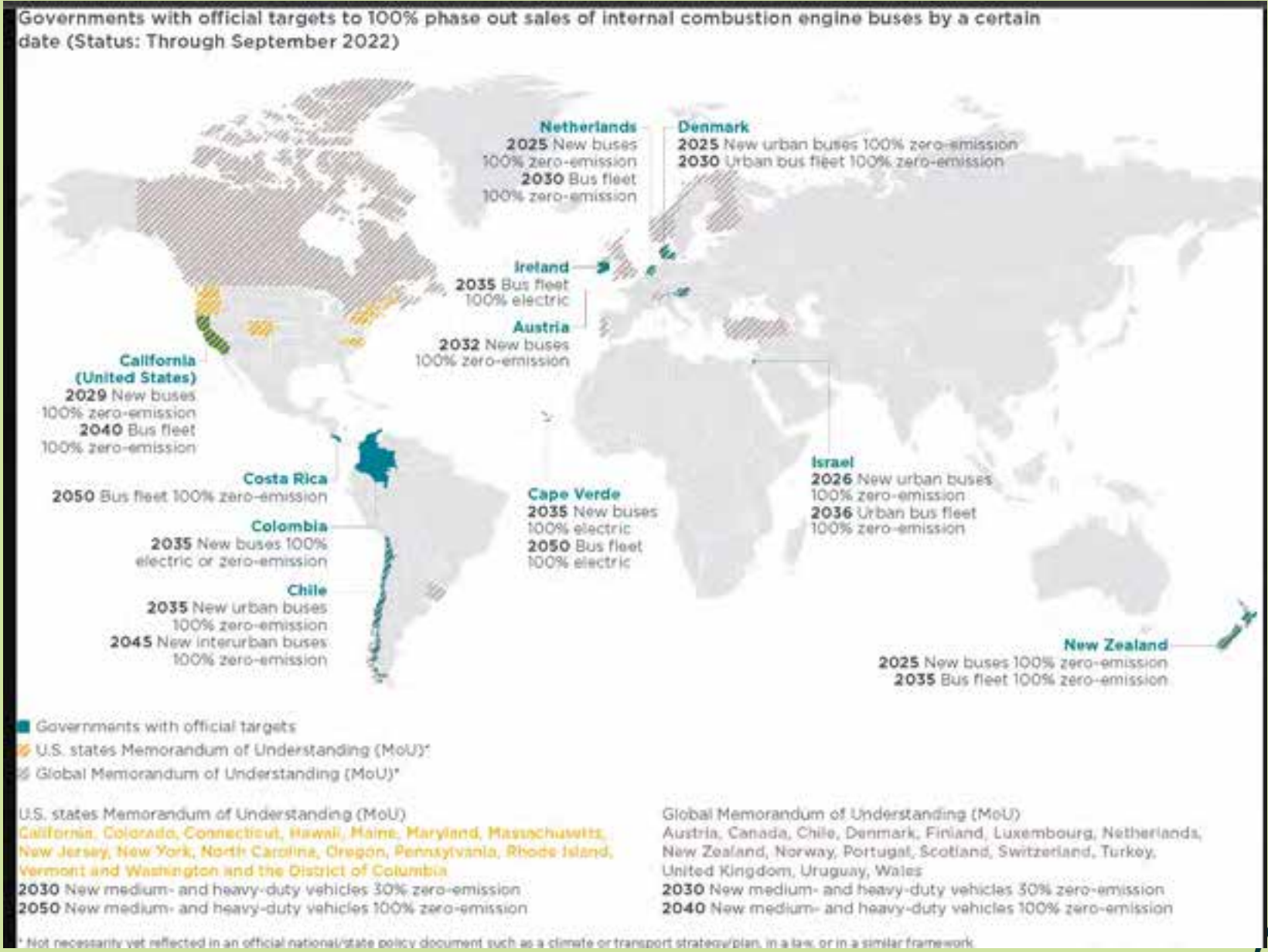
**Road transport** (passenger & freight) contributed **more than three-quarters** of transport CO<sub>2</sub> emissions.

**Freight emissions kept growing:** from **40%** in 2018 to **42%** in 2019. More goods than ever before are being transported.

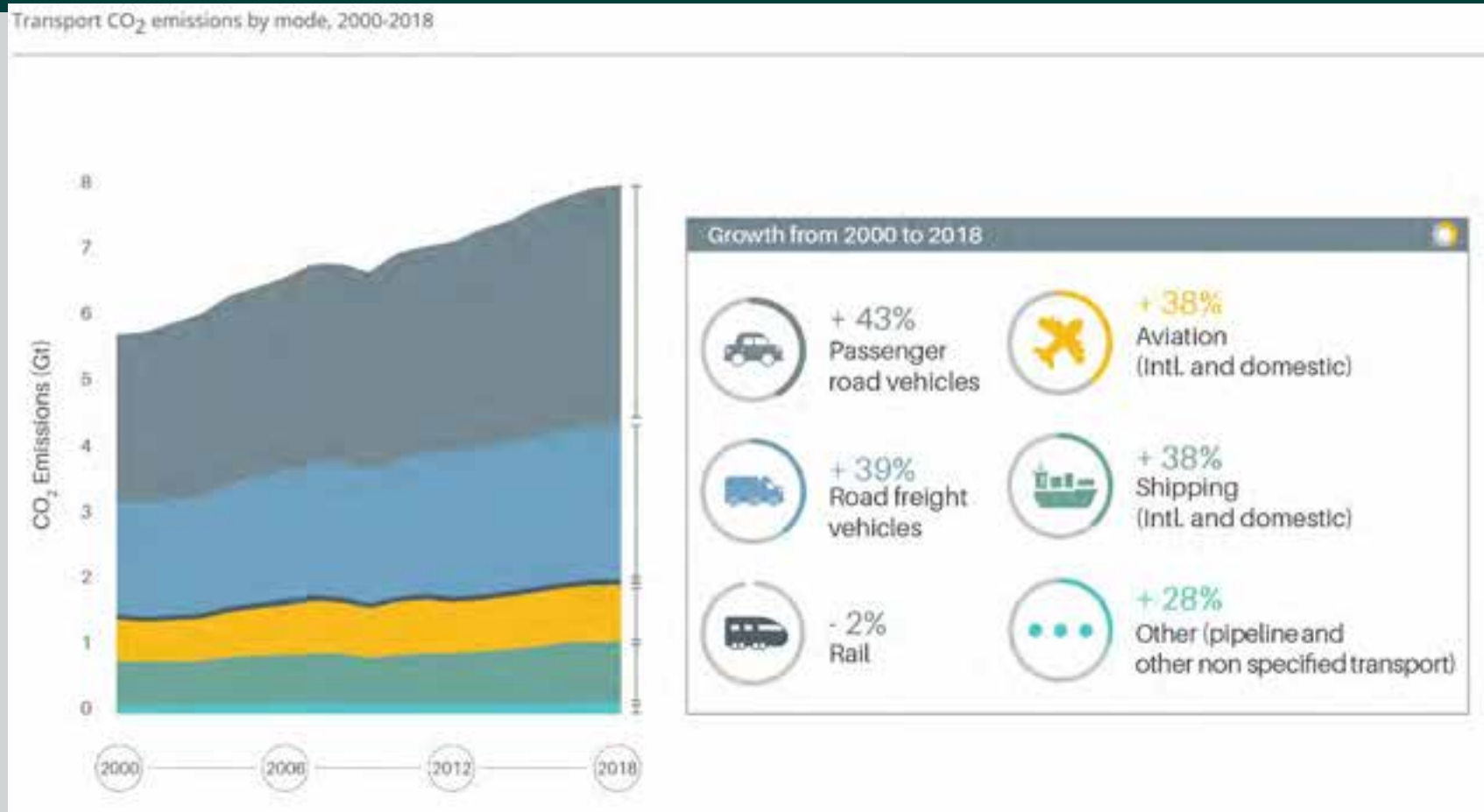
Transport CO<sub>2</sub> emissions by activity and mode, 2019







# Only rail emissions have been declining



Slocat 2022



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# Climate change and public transport workers

Public transport workers are affected by a double effect:

- The consequences of climate change, mainly through extreme weather events
- The policies, technologies and processes implemented to mitigate emissions and adapt to new conditions



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## Main effects on workers

- Loss of income
- Health impacts (specially respiratory illnesses)
- Added stress (mental and physical)



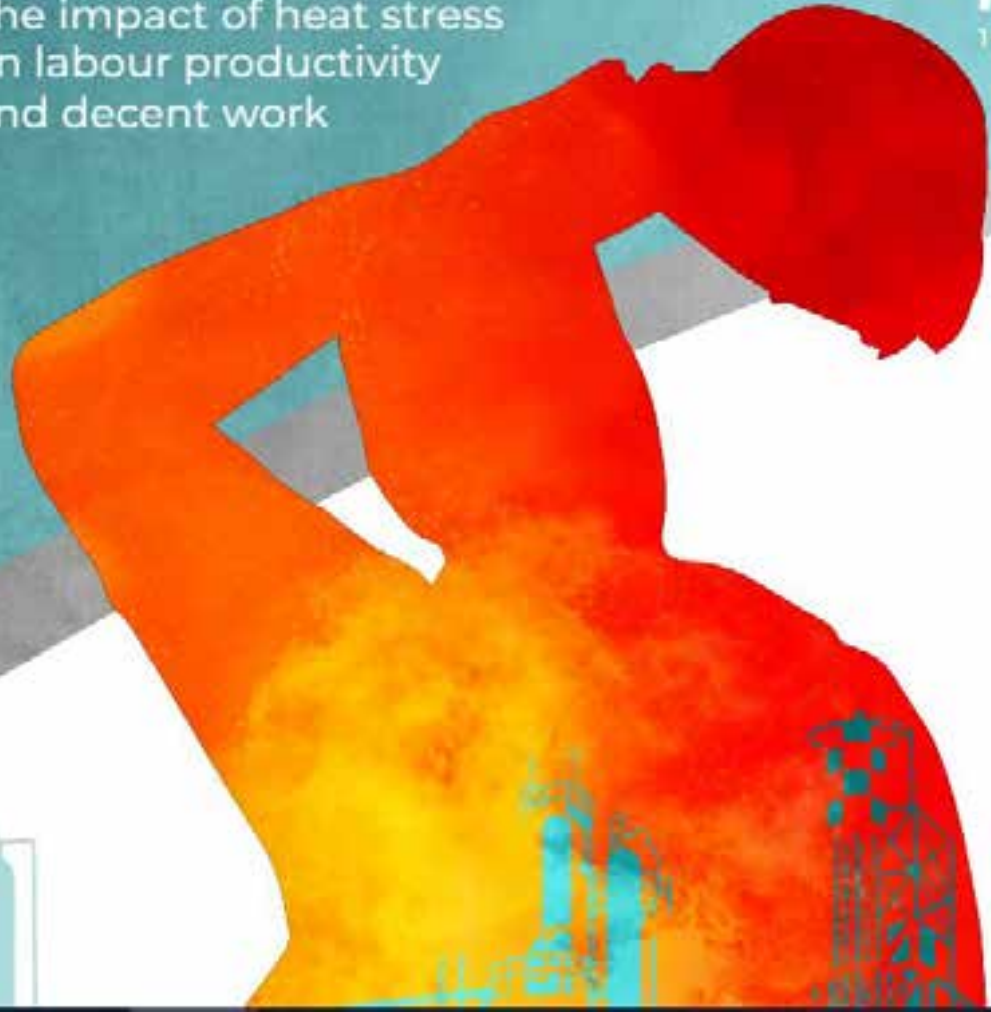
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# Working on a **WARMER** planet

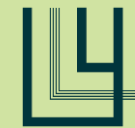
The impact of heat stress  
on labour productivity  
and decent work



International  
Labour  
Organization



- Exposure to extreme heat can result in occupational illnesses and productivity losses, as well as increasing the risk of injury
- By 2030, a loss equivalent to **80 million full-time jobs**
- Poorest regions and the poorest, most precarious workers suffer the most from heatwaves
- **Women workers and young workers are the most affected.**



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by 2025 and 2085 (°C)

Region	Subregion	Mean annual temperature (°C)	Increase under 1.5°C global warming scenario (RCP2.6)		Increase under 2.7°C global warming scenario (RCP6.0)	
		1995	2025	2085	2025	2085
Africa	Northern Africa	+23.7	1.2	1.5	1.1	3.1
	Central Africa	+24.5	1.2	1.3	1.0	3.0
	Eastern Africa	+23.6	1.0	1.1	0.9	2.7
	Southern Africa	+19.5	1.1	1.2	0.9	3.0
	Western Africa	+27.6	1.1	1.3	1.0	3.0
Americas	Caribbean	+25.5	1.0	1.0	0.7	2.1
	Central America	+22.4	1.0	1.1	0.8	2.6
	South America	+21.1	1.0	1.1	0.8	2.5
	North America	-4.5	1.6	2.1	1.6	4.4
Arab States		+24.0	1.3	1.6	1.2	3.4
Asia and the Pacific	Eastern Asia	+6.3	1.3	1.7	1.2	3.2
	South-East Asia	+25.6	0.8	1.0	0.8	2.2
	Pacific Islands	+21.8	1.0	1.2	1.0	2.6
	Southern Asia	+20.5	1.1	1.4	1.0	3.0
Europe and Central Asia	Northern Europe	+3.8	1.5	1.8	1.5	3.3
	Southern Europe	+13.5	1.2	1.6	1.1	2.8
	Western Europe	+9.7	1.2	1.5	1.2	2.9
	Eastern Europe	-4.6	2.0	2.4	1.8	4.8
	Central Asia	+7.8	1.8	1.8	1.6	3.8
	Western Asia	+11.5	1.2	1.5	1.1	3.1

Note: The years 1995, 2025 and 2085 are the midpoints of the three 30-year periods used for our analysis. The RCP2.6 and RCP6.0 climate change pathways envisage a global temperature increase by the end of the twenty-first century of, respectively, 1.5°C and 2.7°C above pre-industrial levels.





# Why does this matter?

- Transport systems and transport workers are exposed to heatwaves, droughts and heavy rain falls.
- Major cities around the world are in coastal areas, therefore exposed to sea-level rise
- Higher cost of food- inflation





# Confronting the climate crisis in public transport



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# Confronting the climate crisis in public transport

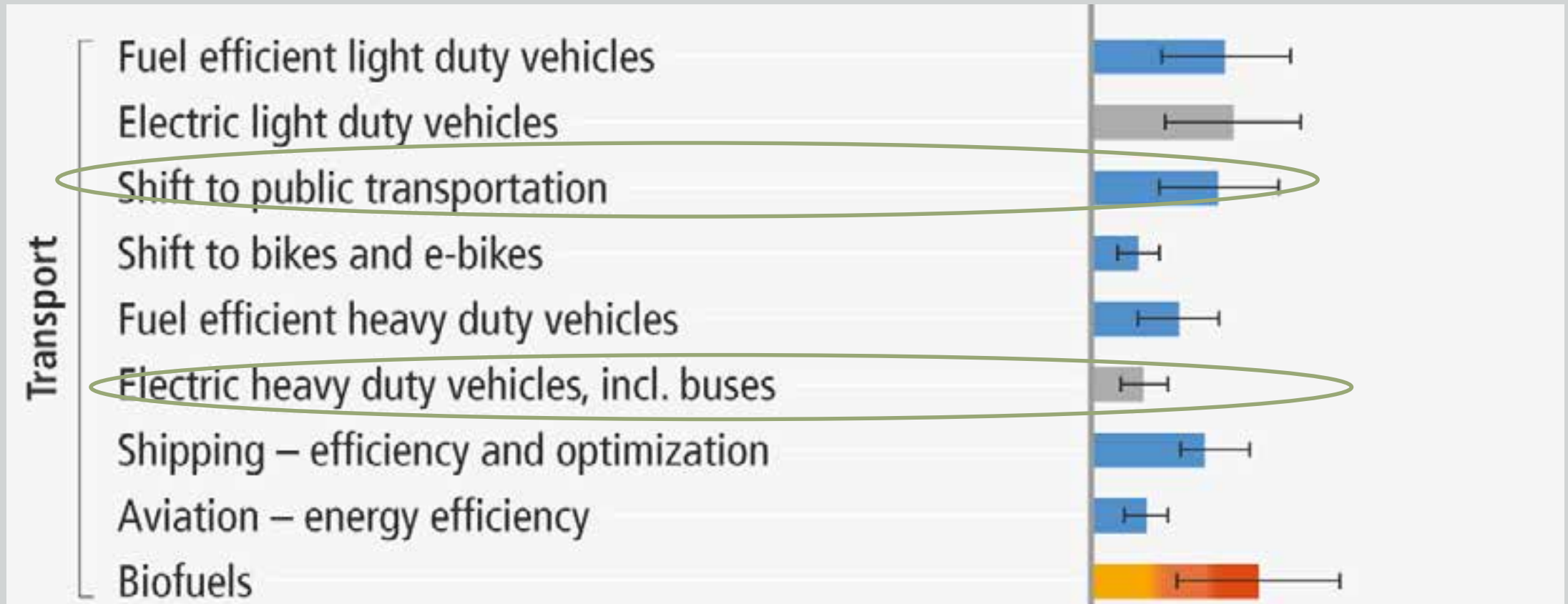
We need to do two things

- *Modal shift to public transport*
- *Electrification*



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# IPCC AR6 report highlights the cost efficiency of the modal shift



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Public and  
non-motorized  
transport

1	Pedestrian-only infrastructure creates...	1.3	...times as many jobs as road construction per \$1 million
1	Bicycle-only infrastructure creates...	1.4	
1	Roads with pedestrian and cycling infrastructure create...	1.1	
2	Mass transit creates...	1.4	
2	Railways create...	0.8	



# Climate and technology

- Public transport electrification
- Automation processes to make transport more 'sustainable'
- Electrification closely tied to digitalization **of production and management of vehicles and charging infrastructure;**



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# ELECTRIFICATION: IMPACTS

## POSITIVE

LOWER CARBON  
EMISSIONS. CLEANER AIR

HEALTH BENEFITS FOR  
WORKERS AND  
PASSENGERS

LESS NOISE POLLUTION

LESS DEPENDENCE ON  
FOSSIL FUELS

## NEGATIVE

HIGHER UP FRONT COST-  
FINANCIAL DIFFICULTIES  
FOR LOCAL GOVERNMENTS

JOB LOSSES

NEED FOR RETRAINING  
ALONG ALL PROFESSIONS

CHANGES TO THE  
POLITICAL ECONOMY OF  
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# Challenges workers: jobs & retraining

## IMPORTANT CONSIDERATIONS FOR WORKERS WITH THE INTRODUCTION OF ELECTRIC BUSES

Issue	Implications for workers
<b>Operation</b>	Drivers will need to be retrained in: <ul style="list-style-type: none"> <li>• Safe operation</li> <li>• Charging procedures</li> <li>• Different braking and drive characteristics</li> <li>• Eco-driving to reduce energy consumption</li> </ul> Drivers pay and working time need to be renegotiated considering charging schedules.
<b>Maintenance</b>	Fewer mechanics, more electricians: <ul style="list-style-type: none"> <li>• Less need for mechanical maintenance staff, higher need for electrical</li> <li>• Electrical work becomes more extensive and specialist, including high voltage power equipment</li> <li>• Overall staff numbers are expected to decrease for maintenance</li> </ul>
<b>Charging</b>	Work process at terminal changes from 'fuelling and cleaning', to 'charging and cleaning'. Retraining needed for workers to manage charging stations  Different safety hazards operating with high voltage equipment

Source: Adapted from EBRD/IUTP/GIZ 2021<sup>28</sup>



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Table 4-8 Maintenance and repair staffing transformation plan after the electrification

Specialty	Target Staffing	Old Staffing	Difference
Electromechanical technician	619	0	619
Mechanical technician	709	1286	-577
Electrician	152	174	-22
Spray painter and panel beater	188	249	-61
Others	0	56	-56

# Challenges: Higher up front costs- Funding



- **Electrification has a higher up front costs when combining the new electric units and the charging infrastructure.**
- **Most investment in electrification is focused on infrastructure**
- **Increased demand for electricity from the grid**



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# Challenges: Changes to operations & supply chains



- **Less operating companies with more power**
  - *Electrification processes have **centralized operations***
  - *Large multinational corporations have a larger stake in the implementation of public transport in cities*
  - *Supply chains for charging infrastructure*



KEOLIS



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# Just transition in public transport

MAD  
Sullivan  
Lynch



ITF



Moving the  
World  
Forward

[WWW.ITFGLOBAL.ORG](http://WWW.ITFGLOBAL.ORG)



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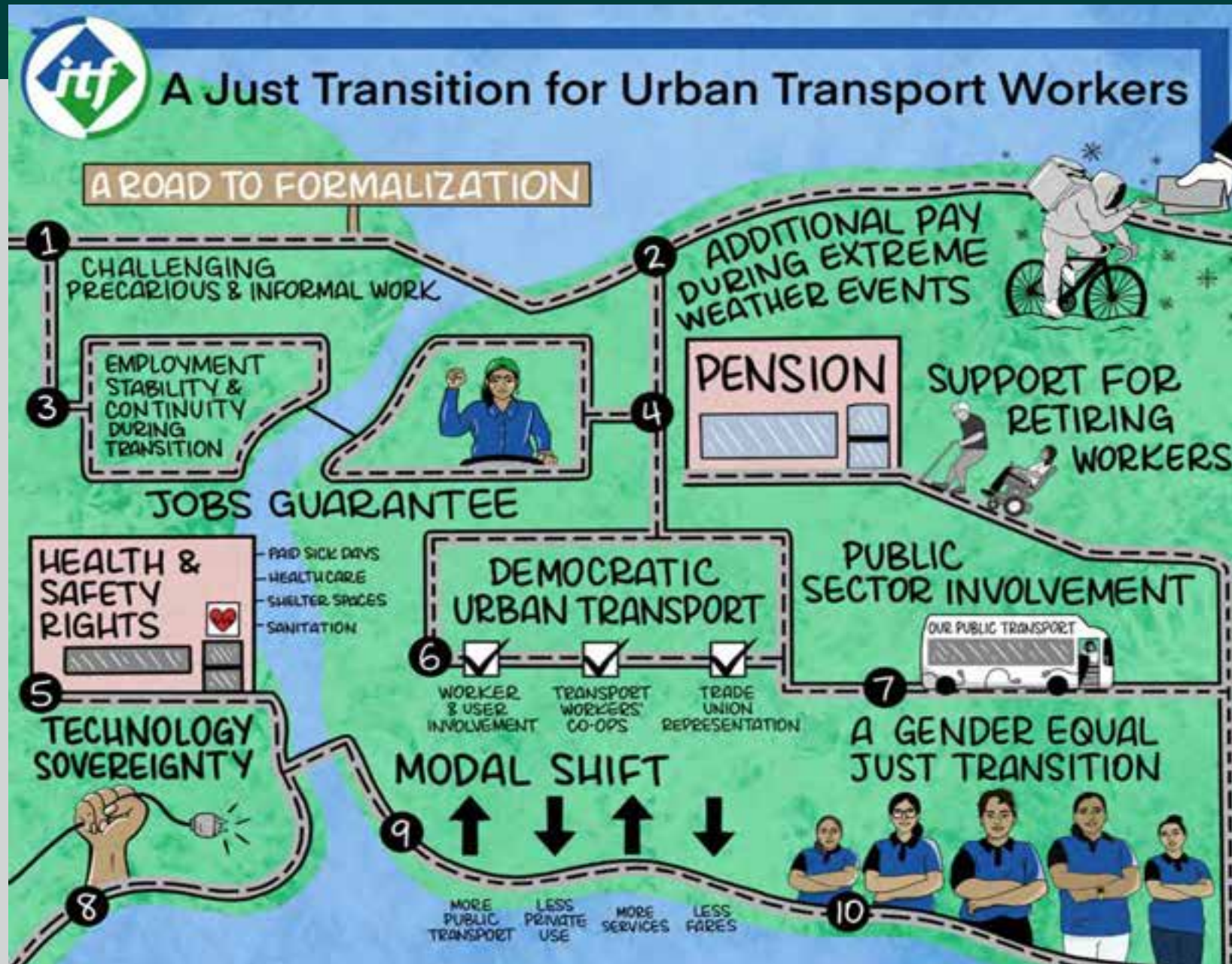
# What's in a comprehensive just transition plan

1. **Workers' views in their workplaces**
2. **Workers' views in their homes**
3. **Workers' views in the industry**
4. **Community perspectives on the transition**
5. **Systemic analysis of where we come from, where we are, where we want to go**



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# Just Transition Framework



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# Moving forward: Campaigning for Public Transport and a just transition

# A worker-led just transition in the Philippines



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# Just transition clauses In Santiago

- After years of struggle with the introduction of new technologies, the Federation of Metro Unions in Santiago has negotiated its first just transition clauses.
- Changes to processes and new technologies in the workplace need to be assessed with workers and the union ahead of time
- Priority is to maintain all jobs and to plan the new positions needed
- The climate crisis is incorporated as a context of the CBA.



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# AIRE ACONDICIONADO PARA LAS LOCOMOTORAS DEL URQUIZA CARGAS

A partir de las gestiones realizadas por La Fraternidad, intervienen las locomotoras del Urquiza Cargas en los talleres de Zárate para que dispongan de aire acondicionado y mejorar el ambiente laboral de los Fraternales. De esta manera, la GM 7923, se convertirá en la primera locomotora de esta línea en contar con el dispositivo.

## A just transition will be won through struggle: Fighting in workplaces

- Workers at the Freight company Urquiza have been undergoing very high temperatures in the cabin. Temperatures have been reported in the 45-60 degrees Celsius range.
- In December workers affiliated to La Fraternidad decided that over 30 degrees Celsius, workers would not start operations.
- The union demanded that all trains should be equipped with air conditioning in the conductors cabin
- After 12 days of boycott, the pressure led to an agreement to install air conditioning equipments in all trains.
- Few companies have completed the process, but the pressure from workers has been building.



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# Climate justice groups join British rail strike picket lines

Campaigners say government must invest in public transport to avoid worst impacts of global heating



Union members and rail workers join the picket line at Manchester Piccadilly train station.

## A just transition will be won through struggle: Fighting in society

- Rail strikes are happening around the world
- Climate justice/environmental groups are coming out in support of our demands.
- Historic possibility to build alliances with climate movement.
- Rail workers are climate workers



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# 2000 New York Subway workers keep their jobs

- The TWU Local 100 in New York fought to keep the jobs of 2,000 ticket booth workers whose jobs were being automated
- All workers will now turn into passenger assistance personnel
- Instead of being booth-bound, they'll now be asked to roam around the subway stations, reporting issues on the platform and helping passengers with ticketing and wayfinding



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