Transport (TR)

EVs, rail, shipping, aviation, active mobility

- CPI GLCF 2025 — Transport (TR) Index
- Road Transport
- Rail
- Maritime & Ports
- Aviation
- Active & Micro Mobility

CPI GLCF 2025 — Transport (TR) Index

source	cpi
source_version	GLCF 2025
source_name	CPI GLCF 2025 — Transport (TR)
sector	TR
origo_nodes_mapped	TBD
last_verified	2026-05-26
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Description

CPI Global Landscape of Climate Finance 2025 coverage for: EVs, rail, shipping, aviation, active mobility. Populate with specific CPI sub-sector and activity nodes during Phase 0.

Cleantech Taxonomy Mapping Notes

[To be populated during Phase 1 schema alignment — document how this source node maps to Cleantech Taxonomy IDs, including convergences, divergences, and gaps.]


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Road Transport

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-TR-001
sector	Transport
subsector	Road Transport
mitigation	Y
adaptation	N
last_checked	2026-05-26

CPI Definition & Scope

Road Transport in CPI's GLCF framework tracks climate finance directed at the decarbonization of passenger and freight vehicles on road networks. The 2025 edition specifically expanded coverage of transport electrification as a tracked energy transition category. CPI captures investments in electric vehicles (passenger cars, buses, trucks), charging infrastructure, fleet electrification programs, and efficiency improvements in conventional vehicle fleets during the transition period.

Subsectors & Examples

- **Electric Passenger Vehicles** — battery electric cars, plug-in hybrids, two/three-wheelers
- **Electric Buses** — battery-electric urban transit fleets, trolleybuses
- **Electric Freight** — battery-electric trucks, hydrogen fuel cell trucks
- **Charging Infrastructure** — public fast-charging networks, depot charging, highway corridors
- **Fleet Conversion Programs** — public procurement mandates, taxi electrification, ride-hailing greening
- **Fuel Efficiency Standards** — vehicle efficiency improvements, low-rolling-resistance components

Mitigation & Adaptation Classification

Road transport electrification is classified as **mitigation** in CPI's framework. The primary benefit is direct emission reduction by replacing internal combustion engines with zero-emission drivetrains. Transport is a major source of urban air pollution and GHG emissions, and its electrification is a core pillar of national climate strategies tracked by CPI.

LATAM Relevance

Road transport decarbonization is a top priority across Latin America. Colombia has been a regional leader in electric bus deployment, with Bogota operating one of the largest e-bus fleets outside China. Costa Rica's National Decarbonization Plan targets 100% zero-emission public transport by 2050 and has CPI-documented investment support for electric mobility. Peru's Lima metro area is beginning electrification of public transit. CPI data shows significant growth in clean transport investment in the region between 2018 and 2023.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **TR** (Transport) for road vehicle electrification and charging infrastructure. Cross-references with **ES** (Energy Systems) for grid integration of transport charging loads and **IN** (Industry) for EV manufacturing.

Rail

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-TR-002
sector	Transport
subsector	Rail
mitigation	Y
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Rail in CPI's GLCF framework tracks finance directed at low-carbon rail infrastructure for both passenger and freight transport. CPI captures investment in metro/subway systems, light rail, intercity electrified rail, and modal shift programs that move freight from road to rail. Rail is inherently lower-carbon per passenger-kilometer and per ton-kilometer than road or air transport, and investments that expand or electrify rail networks count as climate finance in CPI's methodology.

Subsectors & Examples

- **Urban Metro/Subway** — new metro lines, station expansion, system modernization
- **Light Rail & Tram** — urban and suburban light rail networks
- **Intercity Rail** — electrified intercity passenger rail, high-speed rail
- **Freight Rail** — rail freight infrastructure, intermodal terminals, electrification
- **Rail Electrification** — conversion from diesel to electric traction

Mitigation & Adaptation Classification

Rail is classified as **dual-benefit** in CPI's framework. Mitigation comes from modal shift away from road and air transport, along with electrification of rail traction. Adaptation benefits arise from climate-resilient infrastructure

design — elevated tracks, flood-resistant stations, and heat-tolerant rail systems that maintain transport connectivity during climate events.

LATAM Relevance

Rail investment in Latin America is experiencing renewed momentum. Colombia's Bogota Metro (Line 1, under construction) represents the largest single urban infrastructure investment in the country's history with significant multilateral climate finance. Peru's Lima Metro Line 2 expansion is another major project tracked in climate finance flows. Costa Rica has explored light rail for the Greater Metropolitan Area. Regional freight rail development offers significant modal shift opportunities to reduce road transport emissions.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **TR** (Transport) for rail systems. Cross-references with **BU** (Buildings) for transit-oriented development and **ES** (Energy Systems) for rail electrification power supply.

Maritime & Ports

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-TR-003
sector	Transport
subsector	Maritime & Ports
mitigation	Y
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Maritime and Ports in CPI's GLCF framework tracks climate finance directed at decarbonizing shipping and port operations. CPI captures investment in alternative marine fuels (green ammonia, methanol, hydrogen), vessel efficiency improvements, shore power (cold ironing) infrastructure, electrification of port equipment, and port climate resilience infrastructure. International shipping accounts for approximately 3% of global GHG emissions and is considered a hard-to-abate sector.

Subsectors & Examples

- **Green Shipping Fuels** — ammonia, methanol, hydrogen, and LNG bunkering
- **Vessel Efficiency** — wind-assisted propulsion, hull optimization, slow steaming technologies
- **Shore Power** — cold ironing infrastructure at ports
- **Port Electrification** — electric cranes, yard tractors, automated guided vehicles
- **Port Climate Resilience** — sea wall reinforcement, elevated infrastructure, drainage systems

Mitigation & Adaptation Classification

Maritime and ports is classified as **dual-benefit** in CPI's framework. Mitigation comes from fuel switching, efficiency improvements, and electrification of port operations. Adaptation benefits arise from port resilience

investments against sea-level rise, storm surge, and extreme weather events that threaten coastal maritime infrastructure.

LATAM Relevance

Maritime transport is vital for Latin American trade. Colombia's Caribbean ports (Cartagena, Barranquilla, Santa Marta) are major trade gateways requiring both decarbonization and climate resilience investment. Peru's Port of Callao is South America's second-largest container port and faces both emissions and sea-level rise challenges. Costa Rica's Pacific and Caribbean ports serve Central American trade routes. The region's dependence on maritime commodity exports makes shipping decarbonization strategically important.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **TR** (Transport) for maritime systems. Cross-references with **ES** (Energy Systems) for alternative fuels and shore power, and **BU** (Buildings) for port infrastructure resilience.

Aviation

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-TR-004
sector	Transport
subsector	Aviation
mitigation	Y
adaptation	N
last_checked	2026-05-26

CPI Definition & Scope

Aviation in CPI's GLCF framework tracks climate finance directed at reducing the aviation sector's greenhouse gas emissions. CPI captures investment in sustainable aviation fuels (SAF), electric and hybrid-electric aircraft development, airport energy efficiency, and operational efficiency improvements such as optimized air traffic management. Aviation is a hard-to-abate sector responsible for approximately 2-3% of global CO2 emissions with limited near-term electrification options for long-haul flights.

Subsectors & Examples

- **Sustainable Aviation Fuels (SAF)** — bio-SAF from waste oils, HEFA, alcohol-to-jet, power-to-liquid
- **Electric Aviation** — battery-electric regional aircraft, hybrid-electric propulsion
- **Hydrogen Aviation** — hydrogen combustion and fuel cell aircraft development
- **Airport Decarbonization** — terminal energy efficiency, solar on-site, electric ground support
- **Operational Efficiency** — optimized flight paths, continuous descent approaches, single-engine taxiing

Mitigation & Adaptation Classification

Aviation is classified as **mitigation** in CPI's framework. All tracked investments target emission reductions through fuel substitution, technological innovation, or operational efficiency. Aviation adaptation (e.g., runway heat resistance) is generally not tracked as a distinct climate finance category.

LATAM Relevance

Aviation is important for Latin America given the region's geographic scale and limited rail alternatives for long distances. Colombia's domestic aviation market is the largest in the Andean region, and Bogota's El Dorado airport is exploring SAF blending mandates. Brazil leads regional SAF production with its ethanol-based feedstock advantage. Peru's tourism-dependent economy (Cusco, Machu Picchu) creates incentives for sustainable aviation. Costa Rica's ecotourism brand aligns with aviation sustainability messaging.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **TR** (Transport) for aviation. Cross-references with **ES** (Energy Systems) for SAF production and hydrogen supply, and **IN** (Industry) for aircraft manufacturing and supply chain decarbonization.

Active & Micro Mobility

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-TR-005
sector	Transport
subsector	Active & Micro Mobility
mitigation	Y
adaptation	N
last_checked	2026-05-26

CPI Definition & Scope

Active and Micro Mobility in CPI's GLCF framework captures finance directed at non-motorized and light electric transport modes that reduce dependence on private cars. CPI tracks investment in cycling infrastructure, pedestrian networks, e-scooter and e-bike sharing systems, and urban redesign that prioritizes low-carbon mobility. While smaller in absolute investment volume than vehicle electrification, these modes are essential for urban emission reductions and represent growing climate finance flows, particularly in emerging market cities.

Subsectors & Examples

- **Cycling Infrastructure** — protected bike lanes, bike parking, cycle highways
- **Bike-sharing Systems** — station-based and dockless public bicycle programs
- **E-bike & E-scooter** — shared electric micromobility fleets and infrastructure
- **Pedestrian Infrastructure** — car-free zones, widened sidewalks, pedestrian bridges
- **Transit Integration** — bike-transit hubs, last-mile connectivity solutions

Mitigation & Adaptation Classification

Active and micro mobility is classified as **mitigation** in CPI's framework. The primary benefit is emission avoidance through modal shift from private motorized vehicles to zero or near-zero emission transport modes.

These investments also improve urban air quality and reduce traffic congestion, but the classification is driven by the emissions reduction pathway.

LATAM Relevance

Latin American cities are global leaders in cycling infrastructure. Bogota's ciclovía (temporary car-free streets) and extensive bike lane network are internationally recognized models. Lima has expanded its cycling infrastructure significantly post-pandemic. Costa Rica's San Jose has invested in pedestrianization and bike-sharing. Medellin's integrated transport system combines metro, cable cars, and cycling for last-mile solutions. CPI tracks these as part of broader urban climate finance flows in the region.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **TR** (Transport) for micro mobility. Cross-references with **BU** (Buildings) for transit-oriented urban design and **XS** (Cross-Sectoral) for urban planning and governance.