

Book 01: CPI GLCF 2025 — Structural Backbone

Climate Policy Initiative Global Landscape of Climate Finance 2025. Primary structural backbone for Cleantech Taxonomy. 9 sectors, ~150 activity nodes. License: CC BY-NC-SA 4.0 — contact admins@cpiglobal.org for commercial use.

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Energy Systems (EN)

Power generation, grids, storage, fossil fuel transition

CPI GLCF 2025 — Energy Systems (EN) Index

source	cpi
source_version	GLCF 2025
source_name	CPI GLCF 2025 — Energy Systems (EN)
sector	EN
origo_nodes_mapped	TBD
last_verified	2026-05-26
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Description

CPI Global Landscape of Climate Finance 2025 coverage for: Power generation, grids, storage, fossil fuel transition. 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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Renewable Energy

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-ES-001
sector	Energy Systems
subsector	Renewable Energy
mitigation	Y
adaptation	N
last_checked	2026-05-26

CPI Definition & Scope

Under CPI's Global Landscape of Climate Finance (GLCF) framework, Renewable Energy encompasses all capital flows directed toward the deployment, expansion, and scaling of power generation technologies that displace fossil fuel combustion. This is the single largest category of tracked climate finance, representing the majority of global mitigation investment. CPI tracks finance flowing to solar photovoltaic, concentrated solar power, onshore and offshore wind, small and large hydropower, geothermal, and biomass/biogas power generation projects.

Subsectors & Examples

- **Solar PV** — utility-scale, distributed rooftop, floating solar
- **Wind** — onshore wind farms, offshore fixed and floating turbines
- **Hydropower** — large-scale dams, run-of-river, small/micro hydro
- **Geothermal** — conventional hydrothermal, enhanced geothermal systems
- **Biomass & Biogas** — dedicated biomass power, waste-to-biogas, co-firing
- **Concentrated Solar Power (CSP)** — parabolic trough, solar tower

Mitigation & Adaptation Classification

Renewable energy is classified as **mitigation** in CPI's framework. It directly reduces greenhouse gas emissions by displacing fossil fuel generation. While some renewable projects (e.g., off-grid solar for climate-vulnerable communities) can have co-benefits for adaptation and resilience, CPI categorizes the primary finance flow as mitigation.

LATAM Relevance

Latin America has enormous renewable energy potential. Colombia is rapidly expanding wind and solar capacity, particularly in La Guajira for offshore and onshore wind. Peru has growing solar deployment in the southern desert regions and hydropower in the Andes. Costa Rica already generates over 98% of its electricity from renewables (primarily hydro, geothermal, and wind), serving as a regional benchmark. CPI data shows the region attracted significant renewable energy investment growth between 2018 and 2023.

Cleantech Taxonomy Crosswalk

Maps directly to Cleantech Taxonomy sector **ES** (Energy Systems), specifically nodes for solar generation, wind generation, hydropower, geothermal, and bioenergy. Cross-references may exist with **AF** (AFOLU) for biomass feedstock sourcing.

Energy Storage

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-ES-002
sector	Energy Systems
subsector	Energy Storage
mitigation	Y
adaptation	N
last_checked	2026-05-26

CPI Definition & Scope

Energy Storage in CPI's GLCF framework covers finance directed at technologies that store electricity or thermal energy for later dispatch, enabling greater integration of variable renewable energy sources. The 2025 edition expanded coverage to include energy storage as a distinct tracked category, recognizing its critical role in the energy transition. CPI tracks investment across battery storage (grid-scale and behind-the-meter), pumped hydro storage, compressed air, and emerging long-duration storage technologies.

Subsectors & Examples

- **Battery Energy Storage Systems (BESS)** — lithium-ion grid-scale, behind-the-meter commercial/residential
- **Pumped Hydro Storage** — conventional and closed-loop systems
- **Thermal Energy Storage** — molten salt, ice storage, phase-change materials
- **Mechanical Storage** — compressed air, flywheel, gravity-based
- **Long-Duration Storage** — iron-air batteries, flow batteries, liquid air

Mitigation & Adaptation Classification

Energy storage is classified as **mitigation** in CPI's framework. By enabling higher penetration of variable renewables and reducing curtailment, storage directly supports decarbonization of the power sector. It also supports grid resilience, but the primary classification remains mitigation.

LATAM Relevance

Energy storage deployment in Latin America is accelerating as countries integrate more solar and wind capacity. Colombia's energy transition roadmap includes storage auctions to complement La Guajira wind projects. Chile leads the region in lithium-ion deployment and is home to significant lithium reserves. Peru's grid intermittency challenges from growing solar create opportunities for storage investment. Costa Rica, with its near-100% renewable grid, explores storage for managing seasonal hydro variability.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **ES** (Energy Systems) under storage-specific nodes. Cross-references with **IN** (Industry) for battery manufacturing and **XS** (Cross-Sectoral) for grid flexibility services.

Grid & Distribution

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-ES-003
sector	Energy Systems
subsector	Grid & Distribution
mitigation	Y
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Grid and Distribution infrastructure in CPI's GLCF 2025 framework covers investments in electricity transmission and distribution networks that enable integration of clean energy sources. The 2025 edition specifically expanded tracking to include power grids as a distinct category. CPI captures finance flowing to grid modernization, smart grid technologies, interconnection infrastructure, and distribution network upgrades needed to accommodate distributed energy resources and variable renewables.

Subsectors & Examples

- **Transmission Infrastructure** — high-voltage lines, cross-border interconnectors
- **Distribution Network Upgrades** — smart meters, automated distribution, voltage regulation
- **Smart Grid Technologies** — demand response systems, grid management software, SCADA upgrades
- **Grid Interconnection** — renewable energy evacuation lines, substation upgrades
- **Microgrids** — community and industrial microgrids with renewable integration

Mitigation & Adaptation Classification

Grid infrastructure is classified as **dual-benefit** (mitigation and adaptation) in CPI's framework. Mitigation benefit comes from enabling renewable energy integration and reducing transmission losses. Adaptation benefit arises from increased grid resilience against climate impacts such as extreme weather, flooding, and heat waves that threaten power infrastructure.

LATAM Relevance

Grid modernization is a critical bottleneck for Latin America's energy transition. Colombia's ambitious renewable targets require substantial transmission investment to connect remote wind and solar zones (La Guajira, Cesar) to demand centers. Peru faces grid integration challenges as it scales Andean solar and Amazon hydropower. Costa Rica's regional interconnection via SIEPAC enables cross-border clean energy trading in Central America.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **ES** (Energy Systems) under grid and distribution nodes. Cross-references with **IC** (ICT) for smart grid digital solutions and **BU** (Buildings) for building-integrated distributed energy management.

Hydrogen & Alternative Fuels

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-ES-004
sector	Energy Systems
subsector	Hydrogen & Alternative Fuels
mitigation	Y
adaptation	N
last_checked	2026-05-26

CPI Definition & Scope

Hydrogen and Alternative Fuels in CPI's GLCF 2025 framework tracks investment in the production, distribution, and end-use of green hydrogen and other low-carbon fuels. The 2025 edition added green hydrogen as a specifically tracked energy transition category. CPI captures finance directed at electrolysis plants, hydrogen transport and storage infrastructure, ammonia and synthetic fuel production, and sustainable aviation fuels (SAFs) where they substitute fossil fuels.

Subsectors & Examples

- **Green Hydrogen Production** — alkaline and PEM electrolyzers powered by renewables
- **Blue Hydrogen** — natural gas reforming with carbon capture
- **Hydrogen Infrastructure** — pipelines, compression, liquefaction, refueling stations
- **Green Ammonia** — hydrogen-derived ammonia for shipping fuel and fertilizer
- **Sustainable Aviation Fuels (SAF)** — bio-based and power-to-liquid jet fuels
- **Synthetic Fuels** — e-methanol, e-methane, Fischer-Tropsch fuels

Mitigation & Adaptation Classification

Hydrogen and alternative fuels are classified as **mitigation** in CPI's framework. These technologies provide decarbonization pathways for hard-to-electrify sectors including heavy industry, long-haul transport, and high-temperature industrial heat. They represent enabling infrastructure for deep decarbonization beyond direct electrification.

LATAM Relevance

Latin America is positioning itself as a global green hydrogen hub. Colombia's national hydrogen roadmap targets production in La Guajira leveraging cheap wind power. Chile leads the region with its National Green Hydrogen Strategy and is attracting international investment for export-oriented hydrogen projects. Peru has significant potential for green hydrogen production from its solar and wind resources. Costa Rica is exploring hydrogen for decarbonizing its transport sector beyond passenger vehicles.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **ES** (Energy Systems) for hydrogen production and infrastructure. Cross-references with **TR** (Transport) for hydrogen fuel cell vehicles and SAF, **IN** (Industry) for industrial hydrogen use, and **AF** (AFOLU) for biofuel feedstocks.

Energy Access & Off-grid

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-ES-005
sector	Energy Systems
subsector	Energy Access & Off-grid
mitigation	Y
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Energy Access and Off-grid in CPI's GLCF framework captures finance directed toward extending clean energy services to underserved populations, primarily through decentralized renewable energy systems. CPI tracks investments in solar home systems, mini-grids, productive use appliances, and clean cooking solutions that leapfrog fossil fuel-based energy infrastructure. This category bridges climate mitigation and energy poverty alleviation, tracking both public and private capital flows.

Subsectors & Examples

- **Solar Home Systems** — pay-as-you-go solar kits, standalone PV systems
- **Mini-grids** — renewable-powered community-scale generation and distribution
- **Clean Cooking** — improved cookstoves, biogas digesters, electric cooking appliances
- **Productive Use Equipment** — solar water pumps, solar cold chains, agri-processing
- **Rural Electrification** — last-mile grid extension with renewable integration

Mitigation & Adaptation Classification

Energy access is classified as **dual-benefit** in CPI's framework. Mitigation comes from displacing kerosene, diesel generators, and traditional biomass with clean alternatives. Adaptation benefits arise from strengthening energy resilience in climate-vulnerable communities, enabling climate-adaptive livelihoods such as solar-powered irrigation, and reducing indoor air pollution from traditional cooking fuels.

LATAM Relevance

While Latin America has relatively high electrification rates compared to other developing regions, significant energy access gaps remain in remote and indigenous communities. Colombia's Zonas No Interconectadas (non-interconnected zones) in the Pacific coast, Amazon, and insular regions are prime targets for off-grid solar and mini-grid investments. Peru's rural Amazon communities rely heavily on diesel generators, creating opportunities for clean energy leapfrogging. Costa Rica has near-universal access but supports regional clean cooking initiatives in Central America.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **ES** (Energy Systems) for off-grid energy. Cross-references with **XS** (Cross-Sectoral) for just transition and energy equity, and **AF** (AFOLU) for productive use in agriculture.

Fossil Fuel Transition

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-ES-006
sector	Energy Systems
subsector	Fossil Fuel Transition
mitigation	Y
adaptation	N
last_checked	2026-05-26

CPI Definition & Scope

Fossil Fuel Transition in CPI's GLCF framework tracks finance directed at the managed phase-out of fossil fuel assets and infrastructure, as well as investments in transitional technologies that reduce emissions from existing fossil fuel systems. CPI captures investment in coal plant decommissioning, gas-to-renewable fuel switching, methane leak detection and abatement in oil and gas operations, and just transition programs for fossil fuel-dependent communities and workers.

Subsectors & Examples

- **Coal Plant Retirement** — accelerated decommissioning, repurposing of coal sites
- **Gas-to-Renewables Switching** — replacement of gas peaker plants with storage/renewables
- **Methane Abatement** — leak detection and repair (LDAR), flaring reduction, venting elimination
- **Just Transition Programs** — worker retraining, community economic diversification
- **Carbon Capture on Fossil Assets** — CCS/CCUS retrofits on existing plants

Mitigation & Adaptation Classification

Fossil fuel transition is classified as **mitigation** in CPI's framework. The direct reduction of greenhouse gas emissions through asset retirement, fuel switching, and methane abatement is the primary climate benefit. While just transition programs have social adaptation dimensions, CPI categorizes the finance flow primarily under mitigation.

LATAM Relevance

Fossil fuel transition is highly relevant for major hydrocarbon-producing countries in the region. Colombia's government has signaled interest in halting new oil and gas exploration, making managed decline and economic diversification critical. Peru's natural gas sector faces long-term transition questions. Costa Rica banned oil exploration in 2021 and serves as a model for small countries pursuing fossil-free energy systems. The Just Energy Transition Partnership (JETP) model is being explored for several Latin American countries.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **ES** (Energy Systems) for fossil phase-out. Cross-references with **XS** (Cross-Sectoral) for just transition policy, **IN** (Industry) for industrial decarbonization, and **IC** (ICT) for methane monitoring technologies.

Transport (TR)

EVs, rail, shipping, aviation, active mobility

CPI GLCF 2025 — Transport (TR) Index

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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.

Buildings & Infrastructure (BU)

Construction, retrofit, heating and cooling

CPI GLCF 2025 — Buildings & Infrastructure (BU) Index

source	cpi
source_version	GLCF 2025
source_name	CPI GLCF 2025 — Buildings & Infrastructure (BU)
sector	BU
origo_nodes_mapped	TBD
last_verified	2026-05-26
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Description

CPI Global Landscape of Climate Finance 2025 coverage for: Construction, retrofit, heating and cooling. 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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New Zero-Emission Construction

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-BU-001
sector	Buildings & Infrastructure
subsector	New Zero-Emission Construction
mitigation	Y
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

New Zero-Emission Construction in CPI's GLCF framework tracks finance directed at the design and construction of buildings that achieve near-zero or zero operational carbon emissions from the outset. CPI captures investment in net-zero energy buildings, passive house construction, green building certification programs, low-carbon construction materials (mass timber, low-carbon concrete), and building-integrated renewable energy systems. The buildings sector accounted for significant investment growth in CPI's tracking, with a 40% increase between 2018 and 2023.

Subsectors & Examples

- **Net-Zero Energy Buildings** — buildings that produce as much energy as they consume annually
- **Passive Design** — passive house standards, natural ventilation, daylighting optimization
- **Low-Carbon Materials** — mass timber, low-carbon cement, recycled steel, bamboo construction
- **Green Building Certification** — LEED, EDGE, BREEAM-certified new construction
- **Building-Integrated Renewables** — rooftop solar, building-integrated PV, solar thermal

Mitigation & Adaptation Classification

New zero-emission construction is classified as **dual-benefit** in CPI's framework. Mitigation comes from avoiding lock-in of high-carbon building stock and reducing embodied carbon in materials. Adaptation benefits arise from climate-resilient design features including flood-resistant foundations, heat-resilient envelopes, and passive cooling that reduce vulnerability to extreme temperatures and weather events.

LATAM Relevance

Latin America's rapid urbanization drives enormous demand for new construction. Colombia's EDGE green building program has certified hundreds of residential and commercial projects, making it one of the most active markets globally. Peru's construction boom in Lima offers opportunities for green building standards adoption. Costa Rica's ambitious climate goals extend to its building sector with national green building policies. Bamboo and mass timber construction offer regionally appropriate low-carbon material alternatives.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **BU** (Buildings) for new construction. Cross-references with **IN** (Industry) for low-carbon building materials manufacturing and **ES** (Energy Systems) for building-integrated energy generation.

Retrofit & Energy Efficiency

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-BU-002
sector	Buildings & Infrastructure
subsector	Retrofit & Energy Efficiency
mitigation	Y
adaptation	N
last_checked	2026-05-26

CPI Definition & Scope

Retrofit and Energy Efficiency in CPI's GLCF framework tracks climate finance directed at improving the energy performance of existing building stock. CPI's 2025 edition expanded coverage of energy efficiency as a tracked category. This includes investment in building envelope improvements (insulation, windows, air sealing), lighting upgrades, building energy management systems, appliance efficiency programs, and comprehensive deep energy retrofits that reduce a building's energy consumption by 50% or more.

Subsectors & Examples

- **Deep Energy Retrofits** — comprehensive renovation achieving 50%+ energy reduction
- **Building Envelope** — insulation, high-performance windows, air barrier systems
- **Lighting Upgrades** — LED retrofits, smart lighting controls, daylighting systems
- **Building Automation** — energy management systems, smart thermostats, occupancy sensors
- **Appliance & Equipment Efficiency** — high-efficiency HVAC replacement, efficient motors

Mitigation & Adaptation Classification

Retrofit and energy efficiency is classified as **mitigation** in CPI's framework. The primary benefit is direct reduction of energy consumption and associated greenhouse gas emissions from the existing building stock. Energy efficiency is often described as the "first fuel" of the energy transition, and CPI tracks it as a core mitigation investment category.

LATAM Relevance

Building energy efficiency presents significant untapped potential in Latin America. Colombia's commercial building stock, particularly in Bogota and Medellin, offers major retrofit opportunities with payback periods attractive to private investors. Peru's Lima has a large stock of inefficient buildings where cooling demand is rising due to climate change. Costa Rica's government buildings are targets for efficiency programs linked to its National Decarbonization Plan. IFC's EDGE program is driving regional adoption of efficiency standards.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **BU** (Buildings) for retrofit and efficiency. Cross-references with **ES** (Energy Systems) for demand-side energy management and **IC** (ICT) for building automation and smart energy systems.

Heating, Cooling & HVAC

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-BU-003
sector	Buildings & Infrastructure
subsector	Heating, Cooling & HVAC
mitigation	Y
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Heating, Cooling and HVAC in CPI's GLCF framework tracks climate finance directed at decarbonizing thermal comfort systems in buildings. The 2025 edition added heat pumps as a specifically tracked energy transition technology. CPI captures investment in electric heat pumps (air-source, ground-source, water-source), district heating and cooling networks, efficient air conditioning with low-GWP refrigerants, and solar thermal systems. This subsector addresses both space heating/cooling and domestic hot water production.

Subsectors & Examples

- **Heat Pumps** — air-source, ground-source, water-source heat pumps for heating and cooling
- **District Energy** — district heating networks, district cooling systems, combined heat and power
- **Efficient Cooling** — high-efficiency air conditioning, low-GWP refrigerant systems
- **Solar Thermal** — solar water heaters, solar-assisted HVAC, solar cooling
- **Natural Refrigerants** — CO2, ammonia, and hydrocarbon-based cooling systems

Mitigation & Adaptation Classification

Heating, cooling and HVAC is classified as **dual-benefit** in CPI's framework. Mitigation comes from electrification of heating (replacing gas/oil boilers with heat pumps) and improving cooling efficiency. Adaptation is critical because rising temperatures from climate change are driving exponential growth in cooling demand, making efficient and accessible cooling a direct adaptation measure for protecting human health and productivity.

LATAM Relevance

Cooling is the dominant HVAC concern in tropical Latin America and represents a rapidly growing source of electricity demand and emissions. Colombia's Caribbean coast cities (Barranquilla, Cartagena) face extreme heat that drives air conditioning demand. Peru's coastal cities are experiencing rising temperatures with growing cooling needs. Costa Rica's tropical climate makes efficient cooling essential. The Kigali Amendment to the Montreal Protocol, which phases down HFC refrigerants, creates both regulatory and investment momentum for low-GWP cooling in the region.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **BU** (Buildings) for HVAC systems. Cross-references with **ES** (Energy Systems) for heat pump electricity integration and **IN** (Industry) for industrial heat processes.

Industry (IN)

Manufacturing, industrial processes, heavy industry, hydrogen

CPI GLCF 2025 — Industry (IN)

Index

source	cpi
source_version	GLCF 2025
source_name	CPI GLCF 2025 — Industry (IN)
sector	IN
origo_nodes_mapped	TBD
last_verified	2026-05-26
license	CC BY-NC-SA 4.0 — contact adminsf@cpiglobal.org for commercial use

Description

CPI Global Landscape of Climate Finance 2025 coverage for: Manufacturing, industrial processes, heavy industry. 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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Hard-to-Abate Industries

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-IN-001
sector	Industry
subsector	Hard-to-Abate Industries
mitigation	Y
adaptation	N
last_checked	2026-05-26

CPI Definition & Scope

Hard-to-Abate Industries in CPI's GLCF framework tracks climate finance directed at decarbonizing heavy industrial sectors where emissions are intrinsically tied to chemical processes, not just energy use. CPI captures investment in low-carbon steel production (hydrogen direct reduction, electric arc furnaces), low-carbon cement and concrete (alternative clinker, carbon capture), green chemicals (electrification of crackers, bio-based feedstocks), and carbon capture, utilization and storage (CCUS) applied to industrial point sources. CPI notes that industry investment remains at low levels despite significant mitigation potential.

Subsectors & Examples

- **Low-Carbon Steel** — hydrogen DRI, electric arc furnaces, scrap-based production
- **Low-Carbon Cement** — alternative clinker chemistries, supplementary cementitious materials, CCS
- **Green Chemicals** — electric crackers, bio-based feedstocks, green methanol
- **Industrial CCS/CCUS** — carbon capture on cement kilns, steel furnaces, chemical plants
- **Aluminum Decarbonization** — inert anode smelting, renewable-powered production

Mitigation & Adaptation Classification

Hard-to-abate industries are classified as **mitigation** in CPI's framework. These sectors produce process emissions (CO2 from calcination in cement, CO2 from reduction in steel) that cannot be eliminated solely through energy switching, requiring fundamental process innovation. CPI tracks both direct process emission reductions and energy-related emission reductions in these industries.

LATAM Relevance

Latin America has significant heavy industry presence. Colombia's cement industry (Argos, Cemex operations) is a major emitter with growing interest in alternative fuels and CCS. Peru's mining and metals sector is a core economic driver where decarbonization is increasingly demanded by international buyers. Costa Rica has smaller industrial emissions but participates in regional circular economy initiatives. Brazil's steel industry is the largest in the region and a key target for hydrogen-based decarbonization.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **IN** (Industry) for heavy industry decarbonization. Cross-references with **ES** (Energy Systems) for hydrogen supply and industrial electrification, and **XS** (Cross-Sectoral) for CCUS infrastructure and carbon markets.

Light Manufacturing

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-IN-002
sector	Industry
subsector	Light Manufacturing
mitigation	Y
adaptation	N
last_checked	2026-05-26

CPI Definition & Scope

Light Manufacturing in CPI's GLCF framework tracks climate finance directed at decarbonizing manufacturing sectors where emissions are primarily energy-related rather than process-based. CPI captures investment in electrification of manufacturing processes, on-site renewable energy for factories, energy efficiency in food processing, textiles, electronics, and automotive manufacturing, as well as clean technology manufacturing capacity (solar panel, battery, and EV component production). These sectors are more readily electrifiable than heavy industry.

Subsectors & Examples

- **Food & Beverage Processing** — efficient drying, cold chain optimization, waste heat recovery
- **Textile Manufacturing** — process efficiency, renewable energy, waterless dyeing
- **Clean Technology Manufacturing** — solar panel, battery, EV, wind component factories
- **Electronics Manufacturing** — energy efficiency, renewable-powered production lines
- **General Manufacturing Electrification** — replacing gas-fired processes with electric alternatives

Mitigation & Adaptation Classification

Light manufacturing is classified as **mitigation** in CPI's framework. The primary pathway is energy decarbonization through electrification, on-site renewables, and efficiency improvements. Unlike hard-to-abate sectors, light manufacturing emissions can largely be eliminated through clean energy and efficiency without fundamental process changes.

LATAM Relevance

Light manufacturing is a significant employer and emitter across Latin America. Colombia's food processing and textile industries in Antioquia and Bogota are exploring electrification and efficiency investments. Peru's agri-processing sector (fishmeal, coffee, cacao) has growing demand for energy efficiency. Costa Rica's export-oriented manufacturing zones (medical devices, electronics) are under pressure from international buyers to decarbonize supply chains. Regional clean tech manufacturing (solar panels, batteries) remains nascent but is growing.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **IN** (Industry) for light manufacturing. Cross-references with **ES** (Energy Systems) for industrial renewable energy supply and **AF** (AFOLU) for agri-processing value chains.

Industrial Process Efficiency

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-IN-003
sector	Industry
subsector	Industrial Process Efficiency
mitigation	Y
adaptation	N
last_checked	2026-05-26

CPI Definition & Scope

Industrial Process Efficiency in CPI's GLCF framework tracks climate finance directed at cross-cutting efficiency measures applicable across multiple industrial sectors. CPI captures investment in waste heat recovery systems, industrial symbiosis networks, process optimization through digitalization, high-efficiency motors and drives, combined heat and power (CHP) systems, and circular economy approaches that reduce material throughput and associated emissions. These measures represent "low-hanging fruit" for industrial decarbonization.

Subsectors & Examples

- **Waste Heat Recovery** — organic Rankine cycle, heat exchangers, cascading heat use
- **High-Efficiency Motors** — IE4/IE5 motors, variable frequency drives, compressed air optimization
- **Industrial Symbiosis** — co-located industries sharing energy, water, and material streams
- **Process Digitalization** — AI-driven process optimization, digital twins, predictive maintenance
- **Circular Manufacturing** — material recovery, remanufacturing, design for disassembly

Mitigation & Adaptation Classification

Industrial process efficiency is classified as **mitigation** in CPI's framework. Efficiency improvements directly reduce energy consumption and greenhouse gas emissions per unit of industrial output. These are among the most cost-effective mitigation options, often with positive financial returns even before accounting for carbon pricing or climate co-benefits.

LATAM Relevance

Industrial efficiency opportunities are abundant in Latin America where energy-intensive industries often operate below global best practice. Colombia's industrial zones in Bogota, Medellin, and Cali have significant potential for waste heat recovery and motor efficiency upgrades. Peru's mining sector is a major energy consumer where process optimization yields large emissions reductions. Costa Rica's free trade zones host international manufacturers increasingly subject to Scope 3 supply chain emission requirements from global buyers, driving efficiency investment.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **IN** (Industry) for process efficiency. Cross-references with **IC** (ICT) for industrial digitalization and **WA** (Waste) for industrial waste valorization and circular economy approaches.

Waste (WA)

Waste management, circular economy, materials recovery

CPI GLCF 2025 — Waste (WA)

Index

source	cpi
source_version	GLCF 2025
source_name	CPI GLCF 2025 — Waste (WA)
sector	WA
origo_nodes_mapped	TBD
last_verified	2026-05-26
license	CC BY-NC-SA 4.0 — contact adminsf@cpiglobal.org for commercial use

Description

CPI Global Landscape of Climate Finance 2025 coverage for: Waste management, circular economy. 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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Solid Waste Management & Recycling

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-WA-001
sector	Waste
subsector	Solid Waste Management & Recycling
mitigation	Y
adaptation	N
last_checked	2026-05-26

CPI Definition & Scope

Solid Waste Management and Recycling in CPI's GLCF framework tracks climate finance directed at reducing greenhouse gas emissions from waste disposal and material recovery. CPI captures investment in sanitary landfills with methane capture, composting facilities, material recovery and recycling infrastructure, extended producer responsibility programs, and waste collection modernization. CPI notes that the waste sector has historically received low levels of climate finance despite its significant mitigation potential, particularly for methane reduction.

Subsectors & Examples

- **Landfill Methane Capture** — gas collection systems, landfill-to-energy, flaring
- **Recycling Infrastructure** — material recovery facilities, sorting technology, reverse logistics
- **Composting & Organics** — industrial composting, anaerobic digestion of organic waste
- **Waste Collection Modernization** — source separation programs, collection route optimization
- **Extended Producer Responsibility** — packaging take-back, e-waste recovery systems

Mitigation & Adaptation Classification

Solid waste management is classified as **mitigation** in CPI's framework. The primary benefit is methane emission reduction from avoided open dumping and landfill gas capture. Methane has 80x the warming potential of CO₂ over 20 years, making waste management a high-impact mitigation opportunity tracked by CPI as part of the Global Methane Pledge framework.

LATAM Relevance

Waste management is a critical climate issue for Latin America where many cities still rely on open dumps. Colombia's Doña Juana landfill in Bogota and other major disposal sites are targets for methane capture investment. Peru's waste management sector is undergoing reform with new recycling mandates and formalization of waste picker cooperatives. Costa Rica's National Decarbonization Plan includes waste reduction targets. The region's large informal recycling sector creates opportunities for inclusive climate finance approaches.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **WA** (Waste) for solid waste management. Cross-references with **ES** (Energy Systems) for waste-to-energy generation and **IN** (Industry) for recycled material inputs to manufacturing.

Wastewater Treatment

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-WA-002
sector	Waste
subsector	Wastewater Treatment
mitigation	Y
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Wastewater Treatment in CPI's GLCF framework tracks climate finance directed at reducing emissions from wastewater management while improving water quality. CPI captures investment in energy-efficient treatment processes, biogas recovery from anaerobic digestion of sewage sludge, nutrient recovery (nitrogen, phosphorus), constructed wetlands and nature-based treatment solutions, and on-site treatment for industrial effluents. CPI groups this with the waste sector given the methane and nitrous oxide emissions from untreated or poorly treated wastewater.

Subsectors & Examples

- **Municipal Wastewater Treatment** — new treatment plants, process upgrades, tertiary treatment
- **Biogas Recovery** — anaerobic digesters at treatment plants, sludge-to-energy
- **Industrial Effluent Treatment** — sector-specific treatment for mining, food processing, textiles
- **Nature-Based Solutions** — constructed wetlands, treatment lagoons, bio-filtration
- **Water Reuse** — treated wastewater for irrigation, industrial reuse, aquifer recharge

Mitigation & Adaptation Classification

Wastewater treatment is classified as **dual-benefit** in CPI's framework. Mitigation benefits come from methane capture during treatment and reduced nitrous oxide emissions. Adaptation benefits arise from improved water quality, water reuse for drought resilience, and protection of ecosystems that provide climate adaptation services.

LATAM Relevance

Wastewater treatment coverage is a major gap in Latin America. Colombia treats only a fraction of its municipal wastewater, with major investment needed in secondary cities beyond Bogota and Medellin. Peru's Lima discharges partially treated wastewater into the Pacific, and its water-stressed coastal desert environment makes reuse critical. Costa Rica has improving but still incomplete wastewater treatment infrastructure. IDB and World Bank climate finance frequently targets wastewater projects in the region.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **WA** (Waste) for wastewater. Cross-references with **WW** (Water) for integrated water management and **AF** (AFOLU) for treated water reuse in agriculture.

Waste-to-Energy

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-WA-003
sector	Waste
subsector	Waste-to-Energy
mitigation	Y
adaptation	N
last_checked	2026-05-26

CPI Definition & Scope

Waste-to-Energy (WtE) in CPI's GLCF framework tracks climate finance directed at technologies that recover energy from waste streams that would otherwise decompose and release methane in landfills. CPI captures investment in incineration with energy recovery, gasification, pyrolysis, landfill gas-to-electricity, and biogas production from organic waste. CPI applies climate eligibility criteria requiring that WtE projects demonstrate net emission reductions compared to alternative waste disposal methods and avoid disincentivizing waste reduction and recycling.

Subsectors & Examples

- **Landfill Gas-to-Electricity** — methane capture and combustion for power generation
- **Anaerobic Digestion** — biogas from food waste, agricultural residues, sewage sludge
- **Thermal WtE** — incineration with combined heat and power, moving grate technology
- **Advanced Thermal** — gasification and pyrolysis of non-recyclable residual waste
- **Refuse-Derived Fuel (RDF)** — processing waste into fuel for cement kilns and industrial heat

Mitigation & Adaptation Classification

Waste-to-energy is classified as **mitigation** in CPI's framework. The mitigation benefit is twofold: avoided methane emissions from landfill decomposition, and displacement of fossil fuel-generated electricity or heat. CPI applies careful accounting to ensure that tracked WtE finance genuinely reduces net emissions rather than simply incinerating waste that could have been recycled.

LATAM Relevance

Waste-to-energy is a growing opportunity in Latin America as countries modernize waste management. Colombia has several landfill gas capture projects registered under carbon credit mechanisms, and cities are exploring larger WtE facilities. Peru's waste sector reforms create space for biogas and WtE investment, particularly for Lima's massive waste volumes. Costa Rica's focus on circular economy aligns with biogas from agricultural waste streams. Regional cement companies increasingly use RDF as an alternative fuel, creating market pull for waste processing.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **WA** (Waste) for waste-to-energy. Cross-references with **ES** (Energy Systems) for biogas/biomass energy generation and **IN** (Industry) for RDF use in industrial processes.

Water & Wastewater (WW)

Water treatment, irrigation efficiency, flood management

CPI GLCF 2025 — Water & Wastewater (WW) Index

source	cpi
source_version	GLCF 2025
source_name	CPI GLCF 2025 — Water & Wastewater (WW)
sector	WW
origo_nodes_mapped	TBD
last_verified	2026-05-26
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Description

CPI Global Landscape of Climate Finance 2025 coverage for: Water treatment, irrigation, flood management. 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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Water Supply & Treatment

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-WW-001
sector	Water & Wastewater
subsector	Water Supply & Treatment
mitigation	N
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Water Supply and Treatment in CPI's GLCF framework tracks climate finance directed at securing and improving water supply systems in the context of climate change. CPI captures investment in water-efficient infrastructure, desalination powered by renewable energy, water loss reduction (non-revenue water programs), rainwater harvesting, managed aquifer recharge, and drinking water treatment upgrades that ensure supply resilience under changing precipitation patterns. CPI notes that water sector climate finance remains at low levels relative to its importance for climate adaptation.

Subsectors & Examples

- **Water Efficiency** — pipe replacement, pressure management, smart metering, leak detection
- **Desalination** — renewable-powered reverse osmosis, thermal desalination
- **Rainwater Harvesting** — urban and rural collection systems, rooftop harvesting
- **Aquifer Recharge** — managed aquifer recharge, aquifer storage and recovery
- **Water Treatment Upgrades** — membrane filtration, UV treatment, solar-powered systems

Mitigation & Adaptation Classification

Water supply and treatment is classified primarily as **adaptation** in CPI's framework. Water supply security is fundamentally an adaptation challenge as climate change alters precipitation patterns, glacier melt rates, and drought frequency. While energy-efficient water systems have mitigation co-benefits, CPI's primary classification is adaptation given the sector's direct role in building resilience to climate impacts on water availability.

LATAM Relevance

Water security is among the most urgent climate adaptation challenges in Latin America. Colombia's Andean cities depend on paramo ecosystems and glaciers that are shrinking due to climate change. Peru's Lima is one of the world's largest cities situated in a desert, facing acute water stress exacerbated by Andean glacier retreat. Costa Rica, while water-rich, faces increasing seasonal variability in the Guanacaste dry corridor. Regional water utilities lose 30-50% of treated water through leaks, making efficiency investment a priority for both climate and financial sustainability.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **WW** (Water) for water supply. Cross-references with **ES** (Energy Systems) for energy-efficient pumping and renewable-powered desalination, and **AF** (AFOLU) for agricultural water management.

Watershed Management

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-WW-002
sector	Water & Wastewater
subsector	Watershed Management
mitigation	Y
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Watershed Management in CPI's GLCF framework tracks climate finance directed at protecting and restoring water catchment areas, river basins, and wetlands that regulate water supply and provide natural flood control. CPI captures investment in watershed reforestation, wetland conservation and restoration, natural flood management, payment for watershed services programs, and integrated water resource management (IWRM) that incorporates climate change projections into basin-level planning. This represents a nature-based solutions approach to water sector climate finance.

Subsectors & Examples

- **Watershed Reforestation** — riparian buffer zones, headwater reforestation, paramo restoration
- **Wetland Conservation** — protection and restoration of wetlands for flood regulation
- **Payment for Watershed Services** — PES programs linking downstream users to upstream stewardship
- **Integrated Water Resource Management** — basin-level climate adaptation planning
- **Natural Flood Management** — floodplain restoration, permeable surfaces, natural water retention

Mitigation & Adaptation Classification

Watershed management is classified as **dual-benefit** in CPI's framework. Adaptation benefits are primary: watershed protection maintains water supply, reduces flood risk, and improves resilience to changing precipitation patterns. Mitigation co-benefits come from carbon sequestration in restored forests and wetlands, and avoided emissions from preventing degradation of organic-rich wetland soils.

LATAM Relevance

Watershed management is critically important for Latin America where water supply, agriculture, and hydropower depend on intact Andean and tropical ecosystems. Colombia's paramo ecosystems provide water to major cities and are being targeted through PES programs by water utilities in Bogota, Medellin, and Cali. Peru's pre-Inca water infrastructure (amunas) and modern watershed management are being revived for Lima's water security. Costa Rica pioneered payments for ecosystem services in Latin America and has extensive watershed protection programs. The Natural Infrastructure for Water Security (NIWS) concept is gaining traction region-wide.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **WW** (Water) for watershed management. Cross-references with **AF** (AFOLU) for reforestation and land use, and **XS** (Cross-Sectoral) for payments for ecosystem services policy frameworks.

AFOLU (AF)

Agriculture, Forestry, Other Land Use & Fisheries

CPI GLCF 2025 — AFOLU (AF)

Index

source	cpi
source_version	GLCF 2025
source_name	CPI GLCF 2025 — AFOLU (AF)
sector	AF
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last_verified	2026-05-26
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Description

CPI Global Landscape of Climate Finance 2025 coverage for: Agriculture, Forestry, Other Land Use & Fisheries. Populate with specific CPI sub-sector and activity nodes during Phase 0.

Cleantech Taxonomy Mapping Notes

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Sustainable Agriculture

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-AF-001
sector	AFOLU
subsector	Sustainable Agriculture
mitigation	Y
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Sustainable Agriculture in CPI's GLCF framework tracks climate finance directed at farming practices and systems that reduce agricultural greenhouse gas emissions while building resilience to climate change. CPI's 2025 data shows AFOLU finance rose 286% since 2018, though from a low base. CPI captures investment in climate-smart agriculture, precision farming, soil carbon management, sustainable intensification, crop diversification, drought-resistant varieties, and agricultural supply chain transformation. CPI's Landscape of Climate Finance for Agrifood Systems specifically tracks finance flows to these activities.

Subsectors & Examples

- **Climate-Smart Agriculture** — integrated practices that increase productivity while reducing emissions
- **Soil Carbon Management** — no-till farming, cover cropping, biochar application, composting
- **Precision Agriculture** — variable rate application, GPS-guided equipment, sensor-based irrigation
- **Climate-Resilient Crops** — drought-tolerant varieties, heat-resistant cultivars, diversified cropping
- **Sustainable Inputs** — biofertilizers, integrated pest management, efficient irrigation

Mitigation & Adaptation Classification

Sustainable agriculture is classified as **dual-benefit** in CPI's framework. Mitigation comes from reduced nitrous oxide emissions (fertilizer management), lower methane from paddy rice, increased soil carbon sequestration, and reduced energy use. Adaptation benefits are equally significant: climate-smart practices improve farmers' resilience to drought, flooding, temperature extremes, and shifting growing seasons.

LATAM Relevance

Agriculture is a central economic sector across Latin America and a major source of both emissions and climate vulnerability. Colombia's coffee sector is adapting to changing temperature and precipitation patterns that threaten the coffee belt. Peru's diverse agro-ecological zones require region-specific climate-smart practices for crops ranging from highland quinoa to coastal asparagus. Costa Rica's NAMA Cafe program is an internationally recognized model for low-carbon coffee production. CPI specifically tracks blended finance for Latin American agrifood systems.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **AF** (AFOLU) for sustainable agriculture. Cross-references with **WW** (Water) for agricultural water management, **ES** (Energy Systems) for on-farm renewable energy, and **IC** (ICT) for precision agriculture digital solutions.

Forestry, Reforestation & Agroforestry

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-AF-002
sector	AFOLU
subsector	Forestry, Reforestation & Agroforestry
mitigation	Y
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Forestry, Reforestation and Agroforestry in CPI's GLCF framework tracks climate finance directed at establishing, restoring, and sustainably managing forest systems for climate benefits. CPI captures investment in commercial and restoration reforestation, agroforestry systems that combine trees with crops or livestock, sustainable forest management certification, community forestry programs, and forest landscape restoration. This is a core category within CPI's AFOLU tracking, where finance has seen significant growth driven by carbon market demand and nature-based solution commitments.

Subsectors & Examples

- **Reforestation & Afforestation** — native species restoration, commercial timber plantations, degraded land restoration
- **Agroforestry** — shade-grown coffee and cacao, silvoarable systems, alley cropping
- **Sustainable Forest Management** — FSC/PEFC certification, reduced-impact logging
- **Community Forestry** — indigenous and community forest management, REDD+ benefit-sharing
- **Forest Landscape Restoration** — Bonn Challenge commitments, mosaic restoration

Mitigation & Adaptation Classification

Forestry and reforestation is classified as **dual-benefit** in CPI's framework. Mitigation comes from carbon sequestration in growing trees and stored carbon in forest biomass and soils. Adaptation benefits include watershed protection, microclimate regulation, biodiversity conservation that supports ecosystem resilience, and diversified livelihoods for forest-dependent communities.

LATAM Relevance

Latin America's tropical forests are globally significant for climate. Colombia is committed to planting 180 million trees and has active REDD+ programs in the Amazon and Pacific regions. Peru's vast Amazon forests and Peru's commitments under the Bonn Challenge make it a major target for forest finance. Costa Rica's Payment for Ecosystem Services program has reversed deforestation and doubled forest cover since the 1980s — a model for the region. CPI tracks significant carbon market and donor finance flowing to Latin American forestry.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **AF** (AFOLU) for forestry and reforestation. Cross-references with **XS** (Cross-Sectoral) for carbon markets and REDD+ infrastructure, and **WW** (Water) for watershed forestry services.

Land Use Change Prevention

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-AF-003
sector	AFOLU
subsector	Land Use Change Prevention
mitigation	Y
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Land Use Change Prevention in CPI's GLCF framework tracks climate finance directed at halting deforestation and preventing the conversion of high-carbon ecosystems. CPI captures investment in REDD+ programs, deforestation-free supply chain initiatives, protected area establishment and management, indigenous territory demarcation and governance, and enforcement of forest protection regulations. Avoided deforestation is one of the largest potential sources of emission reductions globally, and CPI tracks both public and private finance flows targeting this outcome.

Subsectors & Examples

- **REDD+ Programs** — jurisdictional REDD+, project-based avoided deforestation
- **Protected Areas** — national parks, indigenous reserves, community conservation areas
- **Deforestation-Free Supply Chains** — traceability systems, zero-deforestation commitments
- **Law Enforcement & Governance** — forest monitoring, illegal logging enforcement, land tenure
- **Peatland & Wetland Protection** — preventing drainage and conversion of high-carbon ecosystems

Mitigation & Adaptation Classification

Land use change prevention is classified as **dual-benefit** in CPI's framework. Mitigation is the primary driver — tropical deforestation accounts for roughly 10% of global CO2 emissions, and preventing it avoids massive carbon releases. Adaptation co-benefits include maintaining rainfall patterns, protecting biodiversity, preserving indigenous livelihoods, and maintaining ecosystem services that buffer communities against climate impacts.

LATAM Relevance

Latin America's deforestation is a global climate priority. Colombia's post-conflict Amazon deforestation surge has made it a key target for REDD+ and deforestation finance. Peru's Amazon faces pressure from mining, agriculture, and road construction. Costa Rica demonstrates that deforestation can be reversed with the right policy mix. The EU Deforestation Regulation (EUDR) creates new commercial pressure on Latin American commodity exporters to ensure deforestation-free supply chains, driving investment in traceability and compliance systems.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **AF** (AFOLU) for land use change. Cross-references with **XS** (Cross-Sectoral) for carbon markets and REDD+ policy, **IC** (ICT) for satellite monitoring and MRV systems, and **WW** (Water) for ecosystem service protection.

Livestock & Silvopastoral Systems

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-AF-004
sector	AFOLU
subsector	Livestock & Silvopastoral Systems
mitigation	Y
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Livestock and Silvopastoral Systems in CPI's GLCF framework tracks climate finance directed at reducing emissions from animal husbandry and transforming pastoral landscapes for climate benefits. CPI captures investment in silvopastoral systems (integrating trees with livestock grazing), improved pasture management, manure management systems (biodigesters, composting), feed additives that reduce enteric methane, and rotational grazing systems. Livestock accounts for approximately 14.5% of global GHG emissions, making decarbonization of this sector critical.

Subsectors & Examples

- **Silvopastoral Systems** — trees integrated with pastures for shade, fodder, and carbon sequestration
- **Improved Pasture Management** — rotational grazing, pasture renovation, legume integration
- **Manure Management** — biodigesters, covered lagoons, composting systems
- **Enteric Methane Reduction** — feed additives, improved feed quality, genetic selection
- **Degraded Pasture Restoration** — converting degraded grasslands to productive silvopastoral systems

Mitigation & Adaptation Classification

Livestock and silvopastoral systems are classified as **dual-benefit** in CPI's framework. Mitigation comes from reduced enteric methane, improved manure management, carbon sequestration in silvopastoral trees and improved soils, and avoided deforestation when intensification reduces land pressure. Adaptation benefits include improved animal welfare under heat stress (shade from trees), diversified farm income, improved soil water retention, and enhanced biodiversity.

LATAM Relevance

Livestock is central to Latin American economies and landscapes. Colombia is a global leader in silvopastoral system implementation, with projects supported by the World Bank and GEF converting degraded pastures across the cattle belt. Costa Rica's Livestock NAMA is a pioneering national program to reduce cattle sector emissions through silvopastoral adoption. Peru's highland livestock (llama, alpaca) face climate stress from changing Andean conditions. The region's cattle sector is a primary driver of deforestation, making sustainable intensification critical for climate goals.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **AF** (AFOLU) for livestock systems. Cross-references with **ES** (Energy Systems) for biogas energy, **WA** (Waste) for manure management, and **XS** (Cross-Sectoral) for deforestation-free supply chains.

Fisheries & Aquaculture

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-AF-005
sector	AFOLU
subsector	Fisheries & Aquaculture
mitigation	N
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Fisheries and Aquaculture in CPI's GLCF framework tracks climate finance directed at building resilience in marine and freshwater food production systems affected by ocean warming, acidification, and shifting species distribution. CPI captures investment in sustainable fisheries management, climate-adaptive aquaculture systems, coastal ecosystem restoration (mangroves, coral reefs), blue carbon initiatives, and vessel fuel efficiency. While smaller in volume than terrestrial AFOLU finance, this category is growing as blue economy and ocean-climate connections gain prominence in climate finance frameworks.

Subsectors & Examples

- **Sustainable Fisheries Management** — stock assessments, catch management, vessel monitoring
- **Climate-Adaptive Aquaculture** — heat-resilient species, recirculating systems, offshore aquaculture
- **Blue Carbon** — mangrove restoration, seagrass protection, coastal wetland conservation
- **Coastal Ecosystem Restoration** — coral reef rehabilitation, marine protected areas
- **Vessel Efficiency** — fuel-efficient fishing fleets, electric small-scale fishing vessels

Mitigation & Adaptation Classification

Fisheries and aquaculture is classified primarily as **adaptation** in CPI's framework. The primary challenge is adapting food production systems to ocean warming, acidification, and species migration. Blue carbon initiatives (mangrove and seagrass restoration) have significant mitigation co-benefits through carbon sequestration, but the sector's overall classification leans toward adaptation given the centrality of climate resilience to fisheries livelihoods.

LATAM Relevance

Latin America's extensive coastlines and marine resources face significant climate impacts. Peru's anchovy fishery — the world's largest by volume — is highly sensitive to El Nino events that are intensifying with climate change. Colombia's Pacific and Caribbean fisheries support artisanal livelihoods vulnerable to ocean warming and coral bleaching. Costa Rica's marine protected areas and sustainable fisheries programs are regional models. Mangrove restoration along the Pacific coast of Colombia and Peru serves both blue carbon and coastal resilience objectives.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **AF** (AFOLU) for fisheries and aquaculture. Cross-references with **WW** (Water) for marine ecosystem management and **XS** (Cross-Sectoral) for blue carbon market infrastructure.

ICT & Digitalization (IC)

Digital infrastructure, AI for climate, data platforms

CPI GLCF 2025 — ICT & Digitalization (IC) Index

source	cpi
source_version	GLCF 2025
source_name	CPI GLCF 2025 — ICT & Digitalization (IC)
sector	IC
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last_verified	2026-05-26
license	CC BY-NC-SA 4.0 — contact adminsf@cpiglobal.org for commercial use

Description

CPI Global Landscape of Climate Finance 2025 coverage for: Digital infrastructure, AI, data platforms. 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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Digital Climate Solutions

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-IC-001
sector	ICT & Digitalization
subsector	Digital Climate Solutions
mitigation	Y
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Digital Climate Solutions in CPI's GLCF framework tracks climate finance directed at digital technologies that enable or enhance climate action across all sectors. CPI captures investment in measurement, reporting, and verification (MRV) systems, earth observation and satellite monitoring platforms, artificial intelligence for climate applications, digital twins for infrastructure planning, and Internet of Things (IoT) sensor networks for environmental monitoring. These enabling technologies underpin the accuracy and transparency of climate finance tracking itself.

Subsectors & Examples

- **MRV Systems** — digital platforms for measuring and verifying emission reductions
- **Earth Observation** — satellite-based deforestation monitoring, crop health assessment, flood mapping
- **AI for Climate** — machine learning for energy optimization, climate modeling, early warning systems
- **IoT & Sensor Networks** — environmental monitoring stations, air quality sensors, soil moisture monitoring
- **Digital Twins** — simulation models for cities, infrastructure, and ecosystems

Mitigation & Adaptation Classification

Digital climate solutions are classified as **dual-benefit** in CPI's framework. These are enabling technologies: MRV and earth observation support both mitigation verification (carbon credit integrity) and adaptation monitoring (climate impact tracking). AI and IoT applications serve both energy optimization (mitigation) and early warning systems (adaptation). The classification depends on the specific application, but the category as a whole is dual-purpose.

LATAM Relevance

Digital solutions are critical for Latin America's vast, often remote territories. Colombia's IDEAM national environmental system uses satellite monitoring for Amazon deforestation tracking. Peru's GeoBosques platform provides real-time forest cover data. Costa Rica's national GHG inventory system is among the most advanced in the region. The region's growing tech ecosystem creates opportunities for homegrown climate tech startups focused on MRV, precision agriculture, and climate data services.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **IC** (ICT) for digital climate solutions. Cross-references with virtually all other sectors as an enabling technology layer — particularly **AF** (AFOLU) for forest monitoring, **ES** (Energy Systems) for grid optimization, and **XS** (Cross-Sectoral) for MRV infrastructure underpinning carbon markets.

Climate Finance & Risk Data

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-IC-002
sector	ICT & Digitalization
subsector	Climate Finance & Risk Data
mitigation	N
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Climate Finance and Risk Data in CPI's GLCF framework tracks investment in data platforms and analytical tools that inform climate-related financial decision-making. CPI captures investment in climate risk assessment platforms, physical and transition risk modeling, climate finance tracking and transparency tools, green bond verification systems, and climate-aligned portfolio analytics. This subsector supports the financial system's ability to price climate risk and channel capital toward climate solutions, which is the core mission of CPI's own work.

Subsectors & Examples

- **Climate Risk Modeling** — physical risk assessment, transition risk analysis, scenario modeling
- **Climate Finance Tracking** — platforms for tracking public and private climate finance flows
- **Green Bond Verification** — second-party opinions, use-of-proceeds verification, impact reporting
- **TCFD/ISSB Compliance Tools** — disclosure platforms, Scope 1/2/3 calculation tools
- **Climate-Aligned Portfolio Analytics** — Paris alignment tools, stranded asset analysis

Mitigation & Adaptation Classification

Climate finance and risk data is classified primarily as **adaptation** in CPI's framework. The primary function is enabling financial institutions and governments to understand and respond to physical climate risks, making it fundamentally about adaptation and resilience of the financial system. However, by directing capital toward mitigation investments, these tools have indirect but significant mitigation impact.

LATAM Relevance

Climate risk data is increasingly important for Latin American financial markets. Colombia's financial regulator (Superfinanciera) has mandated climate risk disclosure for financial institutions. Peru's green bond market is growing and requires robust verification infrastructure. Costa Rica issued Latin America's first sovereign ESG bond structure. Central banks across the region are joining the Network for Greening the Financial System (NGFS) and need climate risk analytical tools. CPI itself maintains Latin America-specific climate finance data through its data dashboard.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **IC** (ICT) for climate data platforms. Cross-references with **XS** (Cross-Sectoral) for climate policy and governance enablers, and all mitigation sectors where finance tracking data is applied to investment decisions.

Cross-Sectoral (XS)

Carbon markets, climate finance, MRV, policy enablers

CPI GLCF 2025 — Cross-Sectoral (XS) Index

source	cpi
source_version	GLCF 2025
source_name	CPI GLCF 2025 — Cross-Sectoral (XS)
sector	XS
origo_nodes_mapped	TBD
last_verified	2026-05-26
license	CC BY-NC-SA 4.0 — contact adminsf@cpiglobal.org for commercial use

Description

CPI Global Landscape of Climate Finance 2025 coverage for: Carbon markets, climate finance, MRV, policy enablers. 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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Carbon Markets Infrastructure

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-XS-001
sector	Cross-Sectoral
subsector	Carbon Markets Infrastructure
mitigation	Y
adaptation	N
last_checked	2026-05-26

CPI Definition & Scope

Carbon Markets Infrastructure in CPI's GLCF framework tracks climate finance directed at establishing and strengthening carbon pricing mechanisms and voluntary carbon market infrastructure. CPI captures investment in emissions trading system (ETS) design and implementation, carbon credit registries, MRV systems for carbon projects, carbon market intermediaries and exchanges, and Article 6 cooperative mechanism development under the Paris Agreement. Carbon markets are a key channel for mobilizing private climate finance, and CPI tracks both the direct investment in market infrastructure and the finance flows channeled through carbon pricing mechanisms.

Subsectors & Examples

- **Emissions Trading Systems** — cap-and-trade design, allowance auctions, registry systems
- **Voluntary Carbon Markets** — credit registries (Verra, Gold Standard), verification infrastructure
- **Article 6 Mechanisms** — cooperative approaches, internationally transferred mitigation outcomes (ITMOs)
- **Carbon Credit MRV** — satellite-based verification, digital MRV platforms, third-party auditing
- **Carbon Pricing Advisory** — technical assistance for carbon tax and ETS implementation

Mitigation & Adaptation Classification

Carbon markets infrastructure is classified as **mitigation** in CPI's framework. Carbon pricing mechanisms create financial incentives for emission reductions across all sectors. The infrastructure itself is an enabling investment that catalyzes mitigation action by putting a price on carbon and channeling finance to emission reduction projects. While some carbon projects deliver adaptation co-benefits, the market infrastructure is fundamentally mitigation-oriented.

LATAM Relevance

Latin America is an active participant in carbon markets. Colombia implemented Latin America's first carbon tax in 2017 and is developing a domestic ETS. Mexico launched a pilot ETS. Peru's Amazon hosts numerous REDD+ carbon projects. Costa Rica is a pioneer in results-based payments for forest carbon. The region generates significant voluntary carbon market supply from forestry and renewable energy projects. Article 6 bilateral agreements between Latin American and European countries are being negotiated, creating new infrastructure needs for ITMO tracking and verification.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **XS** (Cross-Sectoral) for carbon market infrastructure. Cross-references with **AF** (AFOLU) for forestry carbon projects, **IC** (ICT) for digital MRV platforms, and **ES** (Energy Systems) for renewable energy carbon credits.

Policy & Governance Enablers

Source Metadata

Field	Value
source	cpi
source_version	GLCF 2025
source_id	CPI-XS-002
sector	Cross-Sectoral
subsector	Policy & Governance Enablers
mitigation	Y
adaptation	Y
last_checked	2026-05-26

CPI Definition & Scope

Policy and Governance Enablers in CPI's GLCF framework tracks climate finance directed at building the institutional, regulatory, and policy capacity needed to catalyze and sustain climate investment across all sectors. CPI captures investment in national climate planning (NDC development and implementation), climate finance readiness programs, green taxonomy development, sustainable finance regulation, climate governance capacity building, and just transition policy frameworks. These investments create the enabling environment that determines whether sector-specific climate finance can be effectively deployed.

Subsectors & Examples

- **NDC Implementation** — national climate plan development, sector-specific climate strategies
- **Green Taxonomies** — national classification systems defining climate-aligned activities
- **Sustainable Finance Regulation** — disclosure mandates, green bond standards, climate risk regulation
- **Climate Finance Readiness** — GCF accreditation, project pipeline development, institutional capacity
- **Just Transition Frameworks** — social protection for affected workers, economic diversification planning

Mitigation & Adaptation Classification

Policy and governance enablers are classified as **dual-benefit** in CPI's framework. These investments create conditions for both mitigation (through climate policy, carbon pricing, and green finance regulation) and adaptation (through national adaptation plans, climate-resilient development frameworks, and disaster risk governance). The enabling nature of policy and governance makes them inherently cross-cutting between mitigation and adaptation objectives.

LATAM Relevance

Latin America is advancing on climate governance. Colombia's green taxonomy (Taxonomia Verde) was one of the first in the region and guides financial sector climate alignment. Peru's NDC implementation framework and climate change framework law create the regulatory basis for scaled climate finance. Costa Rica's National Decarbonization Plan is considered one of the most ambitious in the developing world. Regional bodies like the Pacific Alliance and the IDB support harmonized sustainable finance standards across Latin American markets.

Cleantech Taxonomy Crosswalk

Maps to Cleantech Taxonomy sector **XS** (Cross-Sectoral) for policy and governance. Cross-references with all other sectors as policy enablers create conditions for sector-specific climate investment. Particularly relevant to **IC** (ICT) for transparency and reporting infrastructure.