AFOLU (AF)

Agriculture, Forestry, Other Land Use & Fisheries

- CPI GLCF 2025 — AFOLU (AF) Index
- Sustainable Agriculture
- Forestry, Reforestation & Agroforestry
- Land Use Change Prevention
- Livestock & Silvopastoral Systems
- Fisheries & Aquaculture

CPI GLCF 2025 — AFOLU (AF) Index

source	cpi
source_version	GLCF 2025
source_name	CPI GLCF 2025 — AFOLU (AF)
sector	AF
origo_nodes_mapped	TBD
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

[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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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 biodigester 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.