

Water & Wastewater

OT-WW-xxx nodes

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CT-WW-001 — Water Treatment & Sanitation

origo_id	CT-WW-001
origo_label	Water Treatment & Sanitation
sector	WW
source	origo
cpi_aligned	Y — Water sector
eu_taxonomy_aligned	Y
cbi_eligible	Y
iea_aligned	N
col_gf_sector	Agua
col_gf_activity	Tratamiento de agua potable y saneamiento básico
col_gf_aligned	Y
col_ndc2030_aligned	Y
col_sisclima_relevant	Y
col_ley2169	Y
latam_colombia	Y
cth_clp_coverage	N
cth_data_coverage	Y
schema_version	1.1
last_updated	2026-05-27

Description

Technologies for drinking water treatment, wastewater treatment, and sanitation infrastructure. Covers municipal water treatment plants, decentralized treatment systems for rural areas, nature-based treatment solutions (constructed wetlands), membrane filtration, and water quality monitoring systems.

Colombia Context

Colombia faces a significant urban-rural water gap: while major cities like Bogotá (served by EAAB — Empresa de Acueducto y Alcantarillado de Bogotá) have near-universal water coverage, rural and dispersed communities often lack basic water treatment. CONPES documents on water (Agua y Saneamiento) set national targets for closing this gap. Colombia's NDC 2030 includes water sector targets linked to climate resilience. The Pacifico region (Chocó, Buenaventura) and La Guajira have the most critical water access deficits. EAAB operates green infrastructure programs including watershed protection in the Chingaza and Sumapaz páramo systems that

supply Bogotá's water.

EUDR Relevance

This node has no direct EUDR commodity relevance.

CTH Data Coverage

CTH data coverage through Origo platform tracks water sector project data. CLP does not currently run water sector field programs. Rural water treatment ventures — particularly decentralized solutions for PDET (post-conflict) municipalities — are potential REIN Hub candidates.

Green Finance Alignment

Triple-aligned node with strong finance eligibility. TVC explicitly covers water treatment and sanitation under the Agua sector. CBI Water criteria include water treatment infrastructure with efficiency and coverage requirements. EU Taxonomy Activity 5.1 (Construction, extension and operation of water collection, treatment and supply systems) applies directly. Water utilities like EAAB have successfully issued green bonds backed by water infrastructure assets in Colombia.

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CT-WW-002 — Irrigation Efficiency & Precision Water

origo_id	CT-WW-002
origo_label	Irrigation Efficiency & Precision Water
sector	WW
source	origo
cpi_aligned	Y — Water/AFOLU crossover
eu_taxonomy_aligned	partial
cbi_eligible	Y
iea_aligned	N
col_gf_sector	Agropecuario
col_gf_activity	Riego eficiente y gestión hídrica de precisión en agricultura
col_gf_aligned	Y
col_ndc2030_aligned	Y
col_sisclima_relevant	Y
col_ley2169	N
latam_colombia	Y
cth_clp_coverage	Y
cth_data_coverage	Y
schema_version	1.1
last_updated	2026-05-27

Description

Technologies for improving agricultural water use efficiency including drip irrigation, precision irrigation scheduling, soil moisture sensing, remote sensing for crop water stress, and water-smart agronomic practices. Covers both large-scale commercial agriculture and smallholder farmer applications.

Colombia Context

Colombia's coffee and cacao growing regions face increasing water stress due to changing precipitation patterns under climate change. UPRA (Unidad de Planificación Rural Agropecuaria) maps agricultural water vulnerability and advises on irrigation planning. The NDC 2030 agropecuario (agricultural) target includes water efficiency improvements. Coffee (Huila, Nariño, Cauca) and cacao (Santander, Arauca) regions are priority areas. FNC (Federación Nacional de Cafeteros) promotes water-efficient coffee processing (beneficio ecológico) reducing water consumption by up to 90% compared to traditional wet milling.

EUDR Relevance

Indirect EUDR relevance: efficient irrigation supports sustainable production of EUDR-regulated crops (coffee, cacao). Water management data from precision irrigation systems can contribute to EUDR due diligence evidence on sustainable production practices.

CTH Data Coverage

CLP coverage through coffee sector field programs that include water management components. CTH data coverage via Origo platform tracks irrigation efficiency data in agricultural contexts. Precision water startups are active REIN Hub candidates, particularly those serving smallholder coffee and cacao farmers.

Green Finance Alignment

TVC covers irrigation efficiency under the Agropecuario sector. CBI Agriculture criteria include water efficiency with measurable improvement targets. EU Taxonomy partial alignment — no dedicated irrigation activity but relevant under water resource protection (Objective 3). The agricultural crossover makes this eligible for both green bonds (water efficiency) and sustainability-linked loans (agricultural productivity improvement).

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CT-WW-003 — Watershed Conservation & Payments

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source	origo
cpi_aligned	Y — AFOLU/Water crossover
eu_taxonomy_aligned	partial
cbi_eligible	Y
iea_aligned	N
col_gf_sector	Agua
col_gf_activity	Conservación de cuencas hidrográficas y pagos por servicios ecosistémicos
col_gf_aligned	Y
col_ndc2030_aligned	Y
col_sisclima_relevant	Y
col_ley2169	Y
latam_colombia	Y
cth_clp_coverage	N
cth_data_coverage	Y
schema_version	1.1
last_updated	2026-05-27

Description

Conservation of watersheds, water source protection, and payment for ecosystem services (PES) schemes that compensate upstream landowners for maintaining hydrological services. Includes watershed management plans, páramo conservation, riparian buffer restoration, and water fund mechanisms.

Colombia Context

Colombia's Fondos de Agua (Water Funds) are a flagship model, developed in partnership with TNC (The Nature Conservancy) and replicated across Latin America. Bogotá's Fondo de Agua protects the Chingaza and Sumapaz páramo watersheds that supply 80% of the capital's drinking water. Páramos — high-altitude Andean ecosystems — are constitutionally protected in Colombia and critically important for water regulation. Ley 2169 (Acción Climática) Article 14 establishes a framework for payments for ecosystem services (PES) including

water-related services. SISCLIMA coordinates watershed conservation with climate adaptation planning. Colombia has over 30 operational water funds across major watersheds.

EUDR Relevance

Indirect EUDR relevance: watershed conservation in coffee and cacao growing regions supports deforestation-free production landscapes. Healthy watersheds are a precondition for sustainable agricultural production of EUDR-regulated commodities.

CTH Data Coverage

CTH data coverage through Origo platform tracks watershed conservation project data and PES scheme metrics. CLP does not directly operate watershed programs but field data from coffee regions includes water source protection indicators. Watershed conservation ventures are not typical REIN Hub candidates due to their public-good nature.

Green Finance Alignment

TVC explicitly covers watershed conservation and PES under the Agua sector. CBI Water criteria include nature-based solutions for water management. EU Taxonomy partial alignment through water protection (Objective 3) and biodiversity (Objective 6) but no dedicated watershed activity. Water Funds (Fondos de Agua) represent an innovative finance structure blending public, private, and philanthropic capital. Ley 2169 Art. 14 PES framework enables market-based mechanisms for watershed services.

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CT-WW-004 — Urban Flood Resilience

origo_id	CT-WW-004
origo_label	Urban Flood Resilience
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cpi_aligned	Y — Water/adaptation
eu_taxonomy_aligned	Y
cbi_eligible	Y
iea_aligned	N
col_gf_sector	Agua
col_gf_activity	Infraestructura de resiliencia urbana ante inundaciones
col_gf_aligned	Y
col_ndc2030_aligned	Y
col_sisclima_relevant	Y
col_ley2169	Y
latam_colombia	Y
cth_clp_coverage	N
cth_data_coverage	N
schema_version	1.1
last_updated	2026-05-27

Description

Infrastructure and systems for urban flood prevention, mitigation, and management. Covers stormwater management, sustainable urban drainage systems (SUDS), flood early warning systems, floodplain management, and nature-based solutions for urban water retention.

Colombia Context

Bogotá and Cali face recurrent urban flooding, particularly during La Niña episodes which bring above-average rainfall to the Andean region. Bogotá's Río Bogotá and Cali's Río Cauca have extensive flood-prone zones affecting hundreds of thousands of residents. UNGRD (Unidad Nacional para la Gestión del Riesgo de Desastres) coordinates national flood risk management. Colombia's NDC 2030 adaptation component prioritizes flood resilience in vulnerable urban areas. Ley 2169 mandates climate risk assessment in urban planning. The 2010-2011 La Niña event caused over \$7 billion in flood damages nationally, catalyzing investment in flood

resilience infrastructure. IDEAM provides hydrological monitoring and flood early warning services.

EUDR Relevance

This node has no direct EUDR commodity relevance.

CTH Data Coverage

Not currently covered by CLP or Sustenttia. Urban flood resilience is primarily a municipal infrastructure domain. CTH could support data coverage through climate risk analytics for urban areas where EUDR supply chain actors operate.

Green Finance Alignment

TVC covers flood resilience infrastructure under the Agua sector. CBI Water criteria include flood management and drainage infrastructure. EU Taxonomy adaptation criteria (Objective 2) are directly applicable to flood resilience investments. Climate resilience bonds are an emerging instrument class — Bogotá and other Colombian cities could issue adaptation-focused green bonds backed by flood infrastructure assets. UNGRD's disaster risk reduction framework supports the eligibility narrative.

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