

Buildings and construction



The UN Climate Change Conference (COP30) will take place in Belém, Brazil, from November 10-21. Key expectations include the presentation of new national climate action plans (NDCs), progress on finance from COP29, and discussions on scaling innovative climate finance mechanisms. The conference will also feature the COP30 Action Agenda, a program to engage businesses, civil society, and various levels of government in practical climate solutions.

Overview

The buildings and construction sector is central to the Paris Agreement, accounting for 34 per cent of global energy-related carbon dioxide emissions and 32 per cent of global energy demand.

With nearly half of the buildings that will exist by 2050 yet to be constructed, this sector presents both an urgent challenge and unprecedented opportunity for climate action.

An integrated approach to adaptation and mitigation in the building and construction sector is essential.

Key messages

Buildings and construction must be at the heart of COP30 outcomes for Parties to deliver on the Paris Agreement and operationalise just transition commitments.

Whether through regulatory reform, finance mobilisation, workforce development, or resilience planning, the sector offers a clear opportunity for integrated climate action.

80 per cent of countries reference buildings in their NDCs, however, only 18 per cent include quantifiable targets.

COP30 presents a critical moment to strengthen buildings integration within Nationally Determined Contributions (NDCs), National Adaptation Plans (NAPs), and climate finance frameworks.

There are three urgent transformation pathways in addition to operational emissions and adaptation measures:

addressing embodied carbon through harmonised standards, comprising 18 per cent of building emissions; tripling renovation rates by 2030, targeting 80 per cent of buildings remaining by 2050; and accelerating electrification and renewable energy to increase renewables from 17 per cent to 46 per cent by 2030.

Only 4 per cent of global construction funding supports green projects. Mobilising innovative financing mechanisms is critical to closing the USD 1.1 trillion investment gap.

COP30 must advance dedicated financing windows, de-risking instruments, and models such as heating-as-a-service and green mortgages to ensure equitable access to climate solutions.

Building codes aligned with net zero pathways are the most effective regulatory tool for curbing operational emissions and increasing climate resilience.

Of 51 billion square metres of new floorspace constructed in emerging and developing economies, over half remains uncovered by energy codes with only two countries having Zero Energy Building standards.

Establishing a global goal for resilient buildings linked to NAPs represents a transformative opportunity to address USD 559 billion in climate-exposed real estate assets.

Key data

Energy intensity declined by 9.5 per cent between 2015 and 2023, short of the 18.2 per cent target.

While 2023 marked the first time global floor area growth was decoupled from greenhouse gas emissions, total operational emissions still rose by 5.4 per cent, far from the 28.1 per cent reduction needed.

Investment in building energy efficiency fell by 7 per cent in 2023 to USD 270 billion, leaving a cumulative financing gap of USD 1.1 trillion.

Up to 28 per cent of real estate assets in the S&P Global REIT Index, valued at approximately USD 559 billion, could face physical climate risks by 2050.

The sector faces mounting adaptation challenges as buildings become increasingly exposed to extreme heat and climate risks.

What to expect at COP30?

Building on the momentum of the [Déclaration de Chaillot](#)—signed by over 60 governments – Parties should consider including explicit recognition of buildings and construction in negotiated outcomes.

Key areas for negotiation include mandatory building energy codes as part of national climate commitments; decarbonising the global buildings supply chain through harmonised life cycle standards; and scaling innovative financing instruments for low-income communities.

The **Intergovernmental Council for Buildings and Climate (ICBC)** will hold its first Ministerial meeting. Key actions will include advancing the Belém Call for Action for Sustainable and Affordable Housing, addressing climate action, social inclusion, and development challenges together. The meeting will also focus on accelerating decarbonization and resilience in the building sector.

In the lead-up to COP30 and beyond, GlobalABC co-convenes the secretariat of AG12: **Sustainable and resilient constructions and buildings** and hosts the Buildings and Cooling Pavilion.

What's UNEP doing?

UNEP hosts the Global Alliance for Buildings and Construction (GlobalABC) Secretariat, bringing together over 397 members including 71 national governments. GlobalABC develops national and regional roadmaps, supports building code establishment and revision, mobilises finance, and strengthens institutional capacity across the sector.

In March 2024, GlobalABC co-convened the **Buildings and Climate Global Forum** in Paris, where countries adopted the Déclaration de Chaillot, establishing the **Intergovernmental Council for Buildings and Climate (ICBC)**. This framework enables countries to align policies, coordinate reforms, and accelerate decarbonisation and resilience measures.

UNEP supports countries in embedding buildings within NDCs, adaptation plans, and long-term strategies through technical assistance and capacity building. Following requests from Bangladesh, Ghana, Kenya, and Senegal, support has been provided to integrate buildings-sector measures into NDC 3.0 using the GlobalABC–PEEB NDCs for Buildings Guide and national roadmaps.

GlobalABC also tracks global progress through the annual **Global Status Report**, coordinates the **Buildings Breakthrough**, while promoting circular construction practices, and scales low-carbon materials.

Further Reading

Global Status Report for Buildings and Construction 2024/2025

NDCs for Buildings

Global and regional building decarbonization roadmaps

The Resilience Podcast: Climate-resilient Buildings

Building Materials And The Climate: Constructing A New Future | UNEP - UN Environment Programme

Intergovernmental Council for Buildings and Climate (ICBC)

Déclaration de Chaillot: Buildings and Climate Action

Buildings Breakthrough

Local Solutions for Green Buildings and Constructions: Accelerated through Multilevel Action and Partnership

Here's how buildings contribute to climate change – and what can be done about it

Emissions from building sector stopped rising for the first time since 2020, UN finds

Adapting to hurricanes in Antigua and Barbuda

UNEP Contact:

Jonathan Duwyn

Jonathan.duwyn@un.org