

How buildings can deliver at COP28

Successful outcomes for the built environment

Briefing paper on how to work with governments to support the implementation of a decarbonised, circular and resilient society.



#BuildingTheTransition

Sustainable built environments
for everyone, everywhere

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Buildings at COP28: Briefing paper

This briefing paper was prepared by the World Green Building Council (WorldGBC) and our network of GBCs across the globe.

WorldGBC is the largest and most influential local-regional-global action network, leading the transformation to decarbonised, resilient and circular built environments for everyone, everywhere. Together with over 75 Green Building Councils (GBCs), over 40 partners and more than 46,000 private sector members we deliver on the goals of the Paris Agreement and the UN Global Goals for Sustainable Development (SDGs).

The aim of this paper is to guide partners to engage with policymakers and negotiators at the UN Climate Summit COP28 with the necessary background information to champion buildings in the negotiated outcome at COP28, as well as build confidence that WorldGBC and network of national GBCs can connect ambition with action, and policy with implementation.

1.0 COP28 background

COP28 will take place in Dubai from 30 November to 12 December 2023 under the Presidency of the United Arab Emirates (UAE) Government. The incoming UAE Presidency outlined its COP28 agenda to Parties with an overarching theme “Unite. Act. Deliver” and four paradigm shifts: just transition, climate finance, nature & people, and an inclusive COP.

Key topics of the COP28 negotiations are the first Global Stocktake, the mitigation work program, the Global Goal on Adaptation, and climate finance (including loss and damage).

The COP28 programme is relevant to the building sector on various topics, and especially Wednesday 6 December when a series of events will take place which will be focussed on multilevel action, urbanisation, built environment, and transport.

Nov 30  Opening Day	Dec 6  Multilevel Action, Urbanization and Built Environment/Transport	CROSS-CUTTING THEMES Technology and innovation  Inclusion  Frontline communities  Finance 
Dec 1  World Climate Action Summit	Dec 7  Day of Rest	
Dec 2  World Climate Action Summit	Dec 8  Youth, Children, Education and Skills	
Dec 3  Health / Relief, Recovery and Peace	Dec 9  Nature, Land Use, and Oceans	
Dec 4  Finance / Trade / Gender Equality / Accountability	Dec 10  Food, Agriculture and Water	
Dec 5  Energy and Industry / Just Transition / Indigenous Peoples	Dec 10-11  Final Negotiations	

The latest IPCC AR6 Synthesis Report states that current policies will see us exceed a global average of 1.5 degrees this decade, and in fact points to a 2.8-degree temperature rise by the end of the century. Addressing the climate challenge requires a united world, yet the world is increasingly divided. COP28 is held against a backdrop of major global developments, in particular wars, trade conflicts, migration, inflation, and water and food shortages, as well as growing impacts from climate change felt everywhere around the world.

2.0 Status of Buildings and Climate

The building sector’s progress towards the Paris Agreement goals is being tracked through the 2022 Global Status Report for Buildings and Construction as well as the Breakthrough Agenda Report 2023 buildings chapter and the Global Stocktake Synthesis Report (GST). Despite having the ability to mobilise and scale available solutions now, the sector is falling behind on climate goals:

Status	Evidence
<p>The buildings sector is not on track to halve its emissions by 2030 and net zero by mid-century</p>	<ul style="list-style-type: none"> ● Buildings are responsible for almost 40% of global energy-related carbon emissions and 50% of all extracted materials. The share of emissions from cities – of which buildings are a significant part – is estimated to be 67–72% of global emissions (IPCC, 2022). ● Building sector emissions are growing at an average of 1% per year since 2015. ● Global growth in floor area means that even with improved efficiency and decarbonisation, the actual emissions from buildings are flat or growing. A projected 27% increase in the global population to 9.8 billion will see the world’s building stock double by 2050. ● Developed countries – where most of the buildings in 2030 are already built – must increase their deep energy retrofits to achieve real reductions in emissions (IPCC, 2018).
<p>The building sector is insufficiently resilient to climate change impacts</p>	<ul style="list-style-type: none"> ● Building resilience must be improved to protect people from heatwaves, droughts, coastal flooding and sea level rise, cyclones and strong winds, and cold. (UNEP, 2021) ● According to some estimates, investing in more resilient infrastructure could also save humanity an astonishing \$4.2 trillion from climate change damages.
<p>Policies are not playing optimal role in addressing the climate emergency</p>	<ul style="list-style-type: none"> ● Despite increasing action in NDCs, there is a growing gap between the actual climate performance of the sector and the necessary decarbonisation pathway (UNEP/GlobalABC, 2022), confirming that most of them fall short of the level of ambition needed to drive the performance levels needed. ● Building codes relevant to energy differ between countries and regions. In 2022, only 26% of countries had mandatory energy codes for both residential and non-residential buildings. In Africa, where 70% of the building stock expected to exist in 2040 has yet to be built, only five countries have a mandatory building code. It is estimated that 82% of the population to be added by 2030 will be living in countries without any building energy codes or only voluntary codes (UNEP/GlobalABC, 2022). ● Energy efficiency policies and programs exist but need policy to achieve rapid scaling because buildings provide over 40% of

	solutions needed to double energy intensity improvements by 2030 to keep 1.5 alive (IEA , 2023).
<p>The financial risk of inaction in our built environments is real – we are already paying for it</p>	<ul style="list-style-type: none"> • The insurance industry is already facing major losses from climate change – natural catastrophe events have led to a 3.6 times increase in insured losses and a 2 times increase in uninsured losses over the last 30 years. (Capgemini, 2022). • Insured losses from weather-related catastrophes in advanced economies will rise by an estimated 30–63% because of climate change effects (Swiss Re, 2021). Increasingly insurers are reluctant to write off new insurance in areas prone to natural disasters. • Building codes help reduce losses from weather-related calamities. (Swiss Re, 2021) • Some buildings can already be considered “stranded assets” where the retrofit of a building for resilience or to meet emissions requirements is too costly compared to the building’s value. Built environments account for two-thirds of our global real assets, posing serious risks to our global economy. • And while efficiency investment is expected to reach record levels in 2023, to over USD 600 billion, growth is slowing due to increased cost of capital (IEA, 2023) and in 2022, the buildings sector energy use still increased by around 1% (IEA, 2023).

3.0 The building sector’s response

To get the sector back on track, WorldGBC and our network of GBCs are driving the systemic changes to decarbonise the built environment and deliver integrated sustainability solutions that:

- address whole life carbon emissions of existing and new buildings
- enable resilient, healthy, equitable and inclusive places
- secure regenerative, resource efficient and waste-free infrastructure

To support the implementation of the Paris Agreement goals, our network has:

- developed the Global Policy Principles for a Sustainable Built Environment to support policymakers around the world to adopt a holistic approach to built environment sustainability with seven focus areas: carbon, resilience, circularity, water, biodiversity, health, equity and access.
- overseen the delivery of policy change on buildings in the EU, aligning multiple stakeholders to deliver an ambitious policy that covers the Whole Life Carbon to drive the reduction of both operational and embodied emissions. Our latest letter to EU Policymakers has been endorsed by organisations representing 5,000 companies who are already delivering and implementing local solutions via collaboration and projects, such as Advancing Net Zero and BuildingLife.

- convened and established Building to COP Coalition, working with the UN Climate Change High-Level Champions and a coalition of leading NGOs to bring the built environment high on the agenda of COP negotiators and policymakers. This coalition supports the delivery of the 'Buildings Breakthrough' highlighted in the Breakthrough Agenda Report 2030 that will be launched at COP28.
- individual GBCs in our network are engaged with their respective national governments, and in many cases, regional and local governments, to support strong policies for building decarbonisation. This engagement includes such actions as working with jurisdictions to identify policies that meet their needs; initiating new policies; drafting legislation and amendments; testifying at hearings; posting articles on policy topics; facilitating local business support; and supporting strong funding and incentives that support decarbonised buildings.

4.0 How buildings can deliver at COP28

COP28 – now – is a pivotal point in determining our future carbon trajectory and the type of planet we leave for future generations. Our sector is in a strong position to deliver resilient development that integrates mitigation and adaptation measures, whilst also addressing other pressing societal issues, including energy security, resilience, health, equity, circularity, water and biodiversity.

The WorldGBC, national GBCs and partners have the knowledge, expertise and organisational structure to translate climate ambition into policy implementation. We work with governments all over the world to keep #BuildingTheTransition together so all can enjoy delivering a decarbonised, circular and resilient society.

Successful outcomes from a building sector perspective for key topics of COP28 negotiations are listed below.

Key topics	Description of outcomes from a building sector perspective
Global Stocktake: closing the gap	<ul style="list-style-type: none"> ● Parties come to COP with a National Statement that outlines how increased ambition and acceleration of built environment solutions can get climate action on track. ● Parties confirm the built environment as a cross cutting sector to plug gaps identified in the Global Stocktake. ● Parties commit to the Buildings Breakthrough as a platform for collaboration between national governments and stakeholders to accelerate action and optimise the role of buildings in closing the gaps identified in the Global Stocktake. Parties encourage and enable the private sector including for and not-for-profit entities, to participate in meaningful ways to achieve the collaboration goal of the Breakthrough.
Mitigation: increased global ambition and NDCs	<ul style="list-style-type: none"> ● Parties recognise and re-emphasise the need for NDCs, long-term strategies (LTS) and 2030 goals to be in line with a 1.5°C pathway and the latest science to halve global emissions by 2030.

	<ul style="list-style-type: none"> ● Parties commit to the integration of building codes, sub-national policy and commitment within their NDC, supported by enhanced multi-level governance between parties and sub-nationals to strengthen policy signals for buildings. Parties are transparent in signalling goals and timelines for buildings policy and enable private sector input and support for ambition.
<p>Mitigation: accelerated energy transition</p>	<ul style="list-style-type: none"> ● Parties reiterate the role of buildings in the delivery of a just, equitable and regenerative energy transition, whilst attracting new investors, creating new markets, jobs and improving living conditions. ● Parties emphasise the potential of a Whole Life Carbon approach to buildings stressing the importance of both low-carbon construction materials and mitigation strategies in design, construction, use and retrofits. ● Parties enable public and private sector transparency and accountability through collecting or making accessible key buildings data. ● Parties make commitments in support of sector/systems transitions that are relevant to the buildings sector, taking into consideration each country's national energy mix. <ul style="list-style-type: none"> ○ Triple global renewable energy capacity to at least 11,000 GW by 2030. ○ Doubling energy efficiency improvement rates by 2030, recognising its potential as an immediate and cost-effective resource to achieve global goals. ○ Global phase-out of unabated fossil fuels and a peak consumption before 2030. ○ Fully decarbonised power by 2035 in advanced economies and by 2040 for other countries, at the latest. ○ End coal-fired power generation by 2030 for advanced economies, and 2040 for other countries, at the latest.
<p>Adaptation</p>	<ul style="list-style-type: none"> ● Parties agree on a Global Goal for Adaptation and recognise the role of buildings in anticipating, adapting and responding to climate impacts including heatwaves, droughts, coastal flooding and sea level rise, cyclones and strong winds, and cold. ● Parties commit to making greater efforts to integrate resilience and adaptation into existing policies and programs, including within the building sector. ● Parties recognise that climate resilience and adaptation of homes can help respond to external shocks and stressors, including measures such as passive survivability, resilient

	<p>design practices and the role of key, innovative technologies.</p> <ul style="list-style-type: none"> ● Parties agree to prioritise the use of nature-based solutions, in order to help tackle the twin crisis of biodiversity decline/ ecosystem collapse.
Climate finance	<ul style="list-style-type: none"> ● Parties pledge to increase public spending and policy measures to increase energy efficiency investments in buildings threefold. ● Parties agree to strengthen Loss and Damage funding arrangements with the added support from international financial institutions and multilateral development banks. ● Parties support a global reform of global financial institutions for more just, equitable and effective debt lending and borrowing (e.g. supporting the Bridgetown Initiative).