



Submission to Sharm el-Sheikh mitigation ambition and implementation work programme

28 March 2024

Response to Mandate Decision 4/CMA.4, para 14 FCCC/PA/CMA/2023/L.16, para 9

BuildingToCOP Core Partners



Introduction

BuildingToCOP welcomes the recent decision¹ of the Sharm el-Sheikh mitigation ambition and implementation work programme to focus on the topic of “Cities: Buildings and Urban Systems” in 2024.

The BuildingToCOP Coalition unites sustainability-focused businesses and NGOs from the built environment and in doing so offers a unique, cross-sector, non-Party stakeholder perspective on the chosen topic.

This report responds to the recent call from the work programme’s co-chairs for the non-Party stakeholder views on the opportunities, best practices, actionable solutions, challenges and barriers relevant to the topic.

Key context

The built environment impacts everyone, and everywhere. Its potential to benefit citizens, wherever they are in the world, must not be underestimated.

Buildings and construction represent 21% of global GHG emissions² and 37% of energy related carbon emissions³ representing a significant opportunity for mitigation. Despite this, the [Buildings Global Status Report](#) has shown that the sector is not on track.

The systems through which the Built Environment is shaped are complex, fragmented and largely regionalised. To this end, implementation requires aligned action across the value chain; across policy, regulation, finance, supply and demand.

Buildings decarbonisation will need to take account of different regional contexts and priorities. This differing context includes; climate, urbanisation pressures, energy infrastructure, affordability, access to finance, informality and wider socio-economic properties. Notably in the UK, Europe and the United States, up to 80% of the buildings that will exist in 2050 have already been built. Conversely, an estimated 70 per cent of the African building stock expected to exist in 2040 has yet to be built.⁴

Over one billion people worldwide live in slums or informal settlements⁵. By 2030, 3 billion people will need access to adequate housing. This translates into a demand for 96,000 new affordable and accessible housing units every day⁶.

¹ [UNFCCC Message from the co-chairs MWP](#) (1 March, 2023)

² [Climate Change 2022: Mitigation of Climate Change](#) (IPCC, 2022)

³ [2023 Buildings Global Status Report](#) (UNEP)

⁴ [2022 Buildings Global Status Report Key messages](#) (UNEP)

⁵ [UN Stats.org](#) (accessed March 2024)

⁶ [UN Habitat: Housing](#) (Accessed March 2024)

The criticality of the built environment to support mitigation is underscored in the synthesis report to the UNFCCC Global Stocktake dialogue⁷:

- *“The share of emissions from cities is estimated to be 67–72 percent of global emissions...”*

(Section 123, page 21)

- *“Ambitious implementation of measures to address GHG emissions from... buildings... can reduce emissions... while reducing costs and delivering co-benefits.”*

(Section 20, page 6)

- *“Both existing and yet-to-be-built buildings can be net zero emissions by mid-century if they use low-carbon construction materials, reduce energy demand and implement mitigation options in design, construction, use and retrofits.”*

(Section 123, page 9)

Recognising the scope of the work programme is focussed on “mitigation”, it should be acknowledged that, when considered in the context of the built environment, there exists a degree of interdependence between “decarbonisation” and “resilience”. (For example: efficient buildings supporting resilient energy systems, passive design providing inherent resilience, material choices driving urban heat islands)⁸.

Opportunities

It is estimated that many people spend 90% of their time indoors⁹. Therefore, the built environment’s potential to benefit citizens, wherever they are in the world, must not be underestimated.

Mitigation - Responsible for 21% of global GHG emissions¹⁰ and 37% of energy related carbon emissions¹¹, buildings and construction represent a key sector for mitigation. Moreover, the long lifespan of built assets, elevates the need for early action to avoid locking in emissions pathways long into the future.

Jobs - It has been estimated between 9 and 30 jobs are created for every \$1M USD invested in retrofits and efficiency measures in new construction¹².

Economy - Efficient buildings are one of the biggest investment opportunities, worth an estimated \$24.7 trillion by 2030 in emerging market cities¹³.

⁷ [Technical dialogue of the first global stocktake. Synthesis report](#) (UNFCCC, 2023)

⁸ [Achieving a decarbonised and climate-resilient built environment](#) (C40, 2023)

⁹ [BuildingGreen Blog](#) (Accessed March 2024)

¹⁰ [Climate Change 2022: Mitigation of Climate Change](#) (IPCC, 2022)

¹¹ [2023 Buildings Global Status Report](#) (UNEP)

¹² [2020 Buildings Global Status Report](#) (UNEP)

¹³ [Green Buildings: A Financial and Policy Blueprint for Emerging Markets](#) (IFC, 2019)

Health - The way we build and use our homes is essential for our wellbeing, and efficient buildings powered by clean energy deliver better air circulation, reduced pollution, more comfort and greater access to electricity. In 2020 household air pollution was responsible for 3.2 million deaths¹⁴.

Decent and affordable housing - It is estimated that around 80% of cities worldwide do not have affordable housing options for the majority of their population. Solutions exist to offer efficient, low-carbon and affordable housing offers to address the global housing crisis¹⁵.

Enabling the energy transition - Electrification, energy efficiency and demand-side management, as well as energy storage, are also important elements in net zero energy systems. Specifically, the IEA has shown that ‘buildings’ provide over 40% of solutions needed to double energy intensity improvements by 2030¹⁶.

Resilience - The built environment can become a refuge from nature's extremes. It can safeguard the most vulnerable from the brunt of soaring temperatures, intensifying storms, and rising floodwaters, all while enhancing a healthier quality of life for everyone.

Resource efficiency, circular economy & waste - Currently, the construction sector alone accounts for 50% of resource extraction, making it the most material-intensive sector in the world; it contributes to a number of sustainability crises, such as biodiversity loss, water scarcity and deforestation¹⁷. Better construction practices offer the opportunity to reduce resource extraction and minimise waste generation.

Best practices & Actionable solutions

We have the blueprints to a sustainable tomorrow, but what is required now is heightened ambition, dedicated policy, amplified financing, and sustained action. This section distinguishes the practices and solutions by the critical system-level ‘actions’ and ‘enablers’ required to unlock them.

Enablers

Unified near-term goals and vision - Sector-wide clarity and convergence around credible near-term goals helps normalise the pace and direction of the transition and move actors beyond ‘discussions about direction’ to ‘discussions about action’.

- The [UNFCCC Climate Action Pathway](#) for Human Settlements provides a guiding vision and milestones for the Built Environment.
- *“100% of projects due to be completed in 2030 or after are net zero carbon in operation (with at least 40% less embodied carbon compared to current*

¹⁴ [World Health Organisation: Household air pollution](#) (Accessed March 2024)

¹⁵ [Sustainable and affordable housing](#) (WorldGBC, 2023)

¹⁶ [Net Zero Roadmap](#) (p.100, IEA, 2023)

¹⁷ [Towards a sustainable global construction and buildings value chain](#) (SEI, 2022)

practice)” - This visionary outcome was launched within the [2030 Breakthroughs](#) and established with the [UNFCCC Climate Action Pathway](#) for Human Settlements. It provides a clear goal written in the language of the sector.

‘Radical collaboration’ for system change - The synthesis report to the UNFCCC spotlights the critical role of supporting systems change: *“Achieving net zero CO2 and GHG emissions requires systems transformations across all sectors and contexts...”, “...governments need to support systems Transformations...”*¹⁸. Collaboration across the value chain is a critical solution for de-risking and enabling a shared vision for the sector's systems transformation.

- The [Buildings Breakthrough](#) provides a shared collaboration platform for international collaboration with the backing of 28 countries. The platform will advance collaboration priorities under the headline goal of “near-zero and resilient buildings being the new normal by 2030”.
- The [Market Transformation Action Agenda](#) has been co-created by several hundred representatives from over 100 companies and organisations. The Action Agenda identifies 11 critical system intervention points to unlock and accelerate the decarbonisation of the sector. Moving forwards, the agenda provides a platform for systemic collaboration - one that is businesses-led, and responds to the market barriers.
- The [Declaration de Chaillot](#), backed by 72 countries, emphasises the critical importance of international collaboration involving the entire buildings’ value chain.
- [BuildingLife](#) programme has brought together over 1,550 stakeholders across Europe to co-create 12 National Roadmaps and 1 Regional Roadmap which support the integration and alignment of EU WLC policy. This radical collaboration in action has shifted the dial on Whole Life Carbon (WLC) so much that WLC has gone from 'no' or 'initial' discussions in 60% of participating countries to all countries now supporting measures in policies and regulations.

Engaging non-Party stakeholders towards implementation - The synthesis report to the Global Stocktake makes clear that national governments cannot do this on their own: *“Mitigation measures by non-Party stakeholders will be an important factor for success in achieving the Paris Agreement goals.”* and *“The demonstrable implementation of commitments and actions by non-Party stakeholders can strengthen Parties’ efforts for systems transformations. Rigorous accounting and accountability are needed to lend credence to non-Party stakeholders’ contributions”*¹⁹.

- WorldGBC’s [Net Zero Carbon Buildings Commitment](#) accelerates demand for decarbonisation. The businesses, organisations, cities, states and regions who are signatories to the Commitment have pledged to, by 2030: reduce energy consumption and eliminate emissions from their existing buildings.

¹⁸ [Technical dialogue of the first global stocktake. Synthesis report](#) Key finding 2 and 6 (UNFCCC, 2023)

¹⁹ [Technical dialogue of the first global stocktake. Synthesis report](#) (UNFCCC, 2023)

Moreover, to ensure new developments and major renovations are efficient, powered by renewables, with a maximum reduction in embodied carbon.

- The [Race to Zero](#) campaign calls on non-state actors to take rigorous and immediate action to halve global emissions by 2030. The campaign requires signatories to ‘pledge’, ‘plan’, ‘proceed’, ‘publish’ and ‘persuade’. Targets for businesses must include scopes 1, 2 and 3. As of October 2023, members included 20% of major real estate asset managers and owners, 48% of major architects and engineers and 19% of major construction companies.
- The [SBTi Building Sector Guidance](#), currently being piloted, provides a consistent basis of accountability and target setting to align business ambition.

Actions

NDCs, policy and regulatory roadmaps - Due to the complex fragmentation and regionalisation of the Built Environment, ‘policy and regulation’ remains a critical lever for ‘raising the playing field’. Moreover, NDCs offer a unique opportunity to embed clear and credible regulatory and policy roadmaps to provide market confidence on the pace of the transition. These signals unlock the business case for private sector investment and capacity building.

- C40’s [Net Zero Carbon Buildings](#) and [Clean Construction](#) accelerators provide early policy signals for efficiency and net zero policy. Their recent [progress reports](#) show how these commitments are leading to implementation.
- In a European context, #BuildingLife offers a vision for a clear [policy roadmap](#) on Whole Life Carbon.
- In 2023, WorldGBC launched [Global Policy Principles](#) to policymakers. The principles are structured around seven key focus areas: carbon, resilience, circularity, water, biodiversity, health, equity and access. These areas are supported by detailed policy levers to show how they can be effectively implemented through regulation, information and incentives.

Demand Aggregation - Creating, aggregating and signalling demand de-risks the transition and incentivises investment and capacity building for all actors in the value chain. This is important particularly at international level to support creation of global markets for low-carbon building materials Procurement commitments have been made for construction materials and building appliances in particular, which are often mass-produced and highly traded.

- Ongoing campaigns include the [Green Public Procurement Campaign](#) of the Clean Energy Ministerial Industrial Deep Decarbonisation Initiative (IDDI), [SteelZero](#), [ConcreteZero](#), and the [First Movers Coalition](#) (Aluminium, Steel, Cement and Concrete).
- C40’s [Net Zero Carbon Buildings](#) and [Clean Construction](#) accelerators aggregate public-sector demand for net zero buildings and low-carbon construction materials.

Ambitious procurement policies - Public sector construction offers a critical opportunity to lead-by-example. By integrating ambitious policies, public procurement can de-risk, drive adoption and activate the private sector around key technologies, skills and practices.

Unlocking private finance - The dialogues must recognise the investment case for green buildings. Global investment in energy efficiency in buildings exceeded \$285B USD in 2021 and \$270B USD in 2022. To get on track, the annual investment level should increase gradually around 12% every year until 2030²⁰. Investing in a sustainable and resilient built environment protects asset values over time and offers a growing opportunity to improve investment returns. Many governments offer incentives and tax breaks for sustainable construction and retrofitting, reducing risk and providing financial benefits to investors, developers and private individuals. We need to see a strong policy environment that incentives and unlocks investment into a sustainable and resilient built environment.

- Establishing and harmonising national green taxonomies to cover the building sector.
- The Institutional Investors Group on Climate Change ([IIGCC](#)), a membership body of over 450 asset owners and asset managers, brings the investment community together to support them to set their net zero commitments and develop net zero strategies and transition plans. The [Net Zero Investment Framework](#) (NZIF), sets out how investors can set science-based net zero targets and align their real estate portfolios to net zero and provides guidance on how investors can address whole life carbon in their portfolios²¹.
- The [Net Zero Asset Managers initiative](#) is a group of international asset managers committed to working toward net zero greenhouse gas emissions by 2050. With more than 315 signatories and \$57 trillion USD in assets under management, signatories commit to engaging with clients and companies, advocating for policy change, and shepherding investments to support the goals of the initiative.
- The Global Real Estate Engagement Network ([GREEN](#)) is a collaborative investor initiative to engage with listed and unlisted real estate companies to improve sustainability performance and reduce exposures to financial and non-financial related climate risk.
- Transition risk assessments - The [C-Change Program](#) is working to establish a common industry methodology to assess transitional climate risks as part of property valuations to avoid stagnation of our investment markets and stranded assets.
- Accelerating private finance for adaptation and resilience - An IIGCC coordinated, alongside UN HLCC, UNEP FI and the Insurance Development Forum, [call for collaboration](#) between private finance and policymakers was launched at COP28 to enhance the enabling environment to accelerate the mobilisation of private finance for adaptation and resilience.

²⁰ [2023 Buildings Global Status Report](#) (UNEP, 2024)

²¹ [Addressing whole life carbon in real estate portfolios](#) (IIGCC, 2023)

Challenges and barriers

Equitable transformation is not a one-size-fits-all journey; what thrives in one region may not in another. Yet our shared goal remains: a resilient, adaptive, net zero built environment. Embracing mutual learning and collaboration is paramount.

Affordability - access to low-carbon, climate resilient, and efficient buildings remains a critical barrier to emerging markets. Ensuring ‘low-carbon homes’ are accessible and affordable will be critical to their deployment and will require financial incentives (preferable lending rates, mortgage-backed guarantees) to support their adoption. [Reall](#) demonstrate the facilitation of local collaboration to unlock affordable housing.

Informal and self-built construction - Many buildings are built and operated beyond the influence of formal buildings and construction codes.

- The [Roof Over Our Heads](#) campaign offers a lab-based approach to delivering resilient, low carbon and affordable homes and improving public infrastructure to urban residents, particularly those living and working in informality.

Value chain engagement - No single actor can realise the decarbonisation of the building sector alone. Delivering this goal will require action across the value chain in each region. Therefore alignment and engagement of the entire value chain behind the shared goal remains a critical challenge in all regions. Raising awareness amongst the value chain, and within civil society, is key to uniting action across the value chain.

Data underpins how we assess the whole-life carbon of buildings. A key barrier to being able to leverage this data is the lack of harmonised whole-life carbon methodologies, data-sharing protocols and data-sharing platforms.

- Both the Buildings Breakthrough and Market Transformation Action Agenda recognise the importance of unlocking this barrier through international harmonisation of common data-sharing protocols and platforms.
- Data-sharing platforms are emerging: [Global Building Data Initiative](#), UK’s [Built Environment Carbon Database](#).

The implementation challenge - Where Parties and non-Party stakeholders are committed to decarbonisation of the built environment. Implementation of such commitments requires nurturing of the knowledge, skills and capacities necessary to deliver at pace. International collaboration, knowledge sharing and local capacity building can be advanced to ease the implementation challenge.

Interdependence of mitigation with adaptation - Buildings, at their most fundamental, provide a shelter between people and the external environment. Therefore, whilst recognising the valuable mitigation potential buildings offer, it should be recognised that there exists a critical interdependence between ‘mitigation’ and ‘adaptation’ when exploring climate action on buildings.

Decarbonisation and resilience therefore cannot be explored separately from one another. To solve the climate crisis facing people and nature, they must be addressed at the same time. To this end, ensuring the Sharm el-Sheikh mitigation acknowledges this interdependence and is complementary to the [Sharm el-Sheikh Adaptation Agenda](#) can avoid a divergence of work outcomes and support valuable knowledge exchanges.

About BuildingToCOP

BuildingToCOP unites leaders from across the built environment under a single, shared goal: rapid transformation. The BuildingToCOP Coalition unites sustainability-focused businesses and NGOs from the built environment alongside the Climate Champions Team. It underscores the built environment as a critical sector for a resilient, zero emissions future and highlights the existing solutions that catalyse this transformation.

BuildingToCOP core partners:

C40 Cities

Global Alliance for Buildings and Construction

Institutional Investors Group on Climate Change

Resilience Rising

World Business Council for Sustainable Development

World Green Building Council

BuildingToCOP is in partnership with the Climate Champions Team. The broader network of the BuildingToCOP coalition includes; Climate Bonds Initiative, Climate Group, We Mean Business Coalition and the World Resources Institute.

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