NDC ASPECTS

Policy Brief

Global Climate Governance for the Decarbonisation of the Buildings Sector

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Key messages

- The buildings sector is one of the major greenhouse gases (GHG) emitters, but progress in decarbonising the sector has not been fast enough. In addition to combating climate change, accelerating mitigation efforts has the potential to contribute to achieving no less than 16 of the 17 Sustainable Development Goals (SDGs).
- The significant potential of international cooperation to promote mitigation in the sector has so far been underutilised. Collectively, Parties to the Paris Agreement can promote additional mitigation efforts by: (a) developing a sector-specific international decarbonisation target and roadmap, including indications of when the buildings sector should achieve zero or net-zero emissions and interim emission reduction milestones, potentially with regional differentiation, (b) requesting inclusion of sectoral emission targets and concrete policies in Parties' Nationally Determined Contributions (NDCs) and long-term climate strategies, (C) establishing additional reporting requirements on the implementation and achievement of NDCs in individual sectors under the Paris Agreement's Enhanced Transparency Framework.
- Beyond the UNFCCC, interested Parties and non-Party stakeholders could: (a) adopt and coordinate commitments to decarbonising their own building stock and to procuring only highly efficient equipment and appliances, (b) increase support for policy development, planning, implementation, evaluation and enforcement capacity of national and local governments in developing countries, and (c) scale up financial support and risk-sharing for investments as well as capacity building for local financial institutions in developing countries.
- The newly established "buildings breakthrough" should be strengthened by specifying its objective, mobilising pledges for specific actions by its members, including means of implementation for developing countries, and appropriate staffing of its secretariat.

The buildings sector is one of the key GHG-emitting sectors: as of 2019, global GHG emissions from buildings amounted to 12 Gt CO_2-eq, 21% of total global emissions. Mitigation action in the buildings sector offers multiple benefits contributing positively to 16 out of the 17 SDGs, such as health and environmental benefits due to reduced local air pollution, poverty alleviation due to decreased energy expenditures, job creation, and reducing gender inequalities by reducing the need for collecting fuel wood (Pathak et al., 2022).

Despite some progress, the sector has been slow to move. The energy renovation rate of the building stock is currently about 1% per year, compared to the 2.5% envisaged in the IEA Net Zero Emission scenario. Moreover, the energy intensity reduction that resulted from renovation was less than 15%, whereas a 40-80% reduction would be technically and economically feasible (IEA, 2021).

This policy brief explores how global governance and international cooperation can help accelerate mitigation action in the sector. It is based on an extensive analysis of the global governance for the decarbonisation of the sector conducted as part of the NDC ASPECTS project (see Obergassel and Xia-Bauer, 2022).

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Potential and current state of international cooperation

The benefits of international cooperation in the building sector may not be as apparent as for other sectors, given predominantly localised supply chains, lack of exposure to international trade, and highly differentiated needs of building users relating to geography and climate. Nonetheless, international institutions have various levers at their disposal which they could utilise to promote mitigation efforts in the sector. Table 1 summarises the potential of international cooperation to help overcome mitigation barriers against five key functions that international institutions can perform.

Table 1: Potential of international institutions to address barriers

Governance Function	Barriers	Options to address barriers
Guidance and Signal	• lacking political commitment, insufficient policies and uncertainty about market demand	• agree international targets for decarbonising buildings, phase-out of fossil heating, and/or energy efficiency to provide guidance and create pressure to act
Rules and Standards	• lacking political commitment and insufficient policies • market and supplier uncertainty • higher upfront costs and longer payback periods of building efficiency /renewable options	• agree international requirements to include sectoral emission targets and concrete policies in NDCs and long-term climate strategies to create pressure to act • adopt and coordinate commitments to decarbonise own building stock and procure only highly efficient/renewable heating and cooling equipment to promote market creation • coordinate on product efficiency standards and associated test methods for traded goods to avoid barriers to trade
Transparency and Accountability	• lacking political commitment and insufficient policies	• require reporting on measures taken and their impacts and impose penalties for non-compliance to create pressure to act
Means of Implementation	• lacking political commitment and lack of resources and institutional capacity • technological barriers • lack of access to affordable finance, higher upfront costs and longer payback periods	• provide resources for policy development, planning, implementation, evaluation and enforcement capacity of national and local governments • coordinate technology development and demonstration • capacity building for local financial institutions; financial support and risk-sharing for investments
Knowledge and Learning	• information and awareness problems along the whole value chain	• provide policy and technical knowledge platforms and exchange formats

In practice, most of these options have been utilised only to a very limited extent. While our research identified about 40 international institutions and initiatives as relevant to the decarbonisation of buildings, there is no clear centre of activity. In some respects, international attention to buildings has decreased rather than increased in recent years. The 2022 G7 leaders' summit and the 2022 Major Economies Forum meeting did not even mention the buildings sector in their outcomes. Much activity is short-term stop-and-go rather than long-term strategic.

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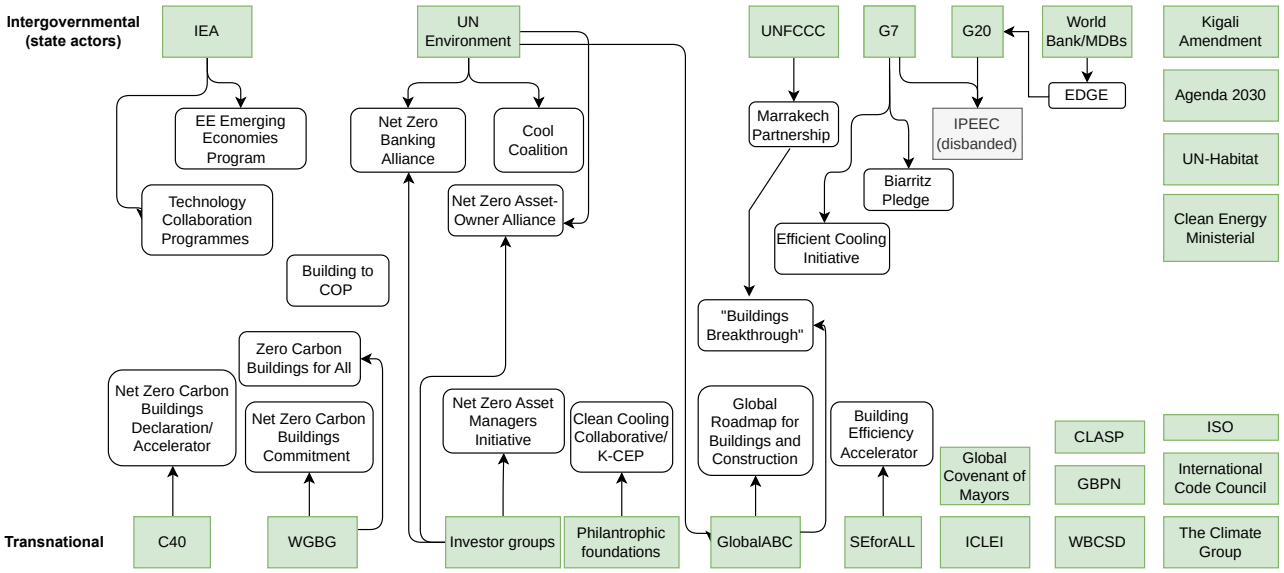

Abbreviation Key

Organisation	IEA - International Energy Agency | UNEP - UN Environment programme | UNFCCC - United Nations Framework Convention on Climate Change | G7 - Group of Seven | G20 - Group of 20 World Bank | MDBs - Multilateral development banks | Agenda 2030 - The 2030 Agenda for Sustainable Development | UN-Habitat - United Nations Human Settlements Programme | CEM - Clean Energy Ministerial | C40 - C40 Cities Climate Leadership Group | WGBG - World Green Building Council | GlobalABC - Global Alliance for Buildings and Constructions | SEforAll - Sustainable Energy for All | ICLEI - Local Governments for Sustainability | CLASP - Collaborative Labelling and Appliance Standards Program | GBPN - Global Buildings Perfomance Network | WBCSD - World Business Council for Sustainable Development | ISO - International Organization for Standardization | ICC - International Code Council
Initiative	K-CEP - Kigali Cooling Efficiency Program/now Clean Cooling Collaborative | EE Emerging Economies Program - Energy Efficiency in Emerging Economies Marrakesh Partnership - Marrakesh Partnership for Global Climate Action | IPEEC - International Partnership for Energy Efficiency Cooperation | EDGE - Excellence in Design for Greater Efficiency

Figure 1: Overview of the current governance landscape for the decarbonisation of the building sector

In terms of **guidance and signal,** there are no internationally agreed global decarbonisation or building efficiency targets. While there are various calls for action by various actors, these have so far gained only little government support.

The picture for **rules and standards** is similar: There are currently no requirements that NDCs should have a sectoral breakdown, nor coordination on specific actions. Regarding non-state and subnational actors, various institutions such as C40 Cities, the World Green Building Council, the Net Zero Asset Managers Initiative, the Net-Zero Asset Owner Alliance and the Net-Zero Banking Alliance collect commitments from relevant actors. However, these are not legally binding and do not cover national governments, and the financial alliances' robustness has been questioned (McCully, 2023).

Existing **transparency and accountability** mechanisms have much room for improvement. The potential of the UNFCCC and the Paris Agreement to provide transparency of parties' actions in the buildings sector is not exploited since they pay little attention to sectoral details.

Substantial **means of implementation** are being provided for activities in the buildings sector. However, there is a lack of data on needs and actual flows in the sector, both in the UNFCCC and the academic literature (Patt et al., 2022). Moreover, public funding is often not provided for the long term but annually, which impedes long-term strategic planning.

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Recommendations for Strengthening Global Governance and International Cooperation

Enhancing international cooperation within the UNFCCC

To help overcome existing mitigation barriers, a number of actions could be pursued under the Paris Agreement. The Conference of the Parties serving as Meeting of the Parties to the Paris Agreement (CMA) could:

- Develop a sector-specific international decarbonisation target and roadmap, including indications of when the buildings sector should achieve zero or net-zero emissions and interim emission reduction milestones, potentially with regional differentiation. To that end, Parties could build on existing roadmaps to sectoral decarbonisation, such as the Climate Action Pathways developed under the Marrakesh Partnership or roadmaps developed by other institutions, such as the International Energy Agency (IEA) or the Global Alliance for Buildings and Construction.
- Request Parties to include sectoral emission targets and concrete policies in their NDCs and long-term climate strategies.
- Develop additional reporting requirements that specifically focus on implementing and achieving NDCs in individual sectors under the Paris Agreement's Enhanced Transparency Framework (ETF). While the first review and potential update of the modalities, procedures and guidelines for the ETF are due only in 2028, an earlier revision would be appropriate given that Parties' NDCs and, even more so, actual implementation are currently far weaker than needed to achieve the objectives of the Paris Agreement.

Enhancing international cooperation beyond the UNFCCC

Interested Parties and non-Party stakeholders could also pursue the following lines of action beyond the UNFCCC:

- To help expand the market for low-emission solutions, Parties and non-Party stakeholders could adopt and coordinate commitments to decarbonise their own building stock and to procure only highly efficient equipment and appliances, including heating, cooling, cooking, lighting, and other appliances.
- Developed country Parties should urgently scale up support for policy development, planning, implementation, evaluation and enforcement capacity of national and local governments in developing countries as well as for training, capacity building and awareness programmes of professionals such as architects, installers, etc.
- Developed country Parties should also scale up financial support and risk-sharing for investments as well as capacity building for local financial institutions in developing countries.

The new "buildings breakthrough" is a promising focus for strengthening international cooperation as it was created specifically for this purpose. With 16 supporting countries, it is presently the most successful attempt to establish a "frontrunner coalition" in the sector, but the number is still low. Furthermore, nearly all of its members are from Europe and Africa. Moreover, it is not clear what resources it has at its disposal.

To add value to the existing institutional landscape, the "breakthrough" should develop a more specific objective than its current vision statement (“near-zero emission and resilient buildings are the new normal by 2030”) and mobilise pledges for specific actions by its members, including pledges to increase the means of implementation

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for developing countries. Developed country members should also provide more resources to its secretariat, which currently has very limited staff. Finally, the "breakthrough" should aim to increase its currently limited membership.

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