World Urban Forum 12

Networking Event Concept note

THE ROLE OF CITIES IN DECARBONIZING THE BUILT ENVIRONMENT AND CONSTRUCTION SECTOR

Date: November 6, 2024, from 17:00 to 18:30 (Cairo Time)
Venue: Multipurpose Room 21 (Ref. no. NE 21-06)

Organizer: Ministry of Housing and Public Works of Bangladesh

Co-organizers:

- *Ministry of Works and Housing of Ghana*
- *Ministry of Urbanism and Housing of Senegal*
- *United Nations Environment Programme (UNEP)*
- *United Nations Office for Project Services (UNOPS)*

Partners: *UN-Habitat, GlobalABC Materials Hub, GlobalABC Circular Built Environment (CBE) group, Habitat for Humanity International*

BACKGROUND

Rapid urbanization exacerbates the environmental burden of the construction sector.

Buildings significantly impact how we experience our surroundings, as most spend more than 80% of our time indoors. The construction sector remains vital in shaping our human settlements' physical, economic, and social aspects and holds a significant position in the global economy, contributing to 13% of the world's GDP[1]. Furthermore, the sector is responsible for approximately 37 percent of energy and process-related CO2 emissions, making it crucial to achieving the Paris Agreement and the Sustainable Development Goals. The need to take action has never been greater; about 60 percent of the buildings that will exist by 2050[2] have yet to be built. This holds particularly true for rapidly developing regions of Asia and Africa. It has been estimated that over 70% of the building stock in Africa in 2040 will still be constructed[3].

More than half of the world's population resides in urban areas. However, projections indicate that this number will increase to nearly 70% by 2050, resulting in an additional 2.5 billion individuals living in cities[4]. This shift can be attributed to the increase in population in urban areas and the movement of people from rural areas, particularly in

[1] McKinsey Global Institute (2020). *The next normal in construction*.

[2] *UNEP (2022). Global Status Report for Buildings and Construction.*

[3] *UNEP (2022). Global Status Report for Buildings and Construction.* 3

4 https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html

Africa and Asia. As urbanization rates increase, countries undergoing rapid urbanization need help to meet the demands of their expanding populations despite the positive correlation between urbanization and economic development. These needs encompass a range of essential elements, such as adequate housing for all, sustainable, resilient, and inclusive infrastructure, reliable and affordable energy, and sustainable livelihood opportunities. There is a necessity to construct new buildings differently or repurpose existing ones in order to accommodate the expanding population and bridge the housing and infrastructure gap without increasing the environmental burden of the buildings and construction sector.

Circularity is an essential solution to the increasing demand for natural resources.

The built environment and construction sector consumes 12% of freshwater and 30% of raw materials, generating approximately 20% of effluents and 40% of landfill waste globally (WEF, 2016). The sector's wasteful use of materials and natural resources warms the climate, pollutes ecosystems, and feeds inequalities. Increasing demand for natural resources for construction puts pressure on planetary boundaries and presents sustainability challenges. This is primarily due to the rapid and unsustainable extraction of resources, the high carbon footprint associated with the entire value chain of raw materials, the energy requirements for operations, and tons of waste dumped daily, creating visual and environmental pollution. Buildings are significant in climate change, responsible for approximately 37% of global CO2 emissions and consuming 30% of global energy[5].

Additionally, construction and demolition activities contribute to over one-third of worldwide waste. The Circularity Gap Report 2023 found that adopting circular economy solutions could reverse the overshoot of planetary boundaries and slash the global need for material extraction by one-third. This is possible because the circular economy model keeps building materials in a closed-loop economy, consuming fewer natural resources and generating fewer pollutants, waste, and GHG emissions while generating new jobs and economic value for building materials throughout the entire value chain.

Climate Action Roadmaps to decarbonize the buildings and construction sector.

Since COP21, the Global Alliance for Buildings and Construction (GlobalABC) has launched a series of global, national, and subnational roadmaps to decarbonize buildings and construction in Africa, Asia, and Latin America. These roadmaps aim to inspire and support countries and local authorities in their efforts to achieve building decarbonization and resilience. The hope is that these roadmaps will help countries identify key actions and set their targets for a more sustainable future. Created as a framework and a process, the roadmaps offer a thorough approach to reducing emissions from the built environment throughout its lifespan. These roadmaps aim to raise the ambition of national NDCs by setting specific goals for the short-, medium-, and long-term operations and resilience of the built environment, which align with the Marrakesh Partnership for Global Climate Action Pathway. The aim is to achieve zero-emission, efficient, and resilient buildings and construction across the life cycle of buildings by 2050, with specific timelines between 2020 and 2050.

UNEP/GlobalABC and its partners have diligently worked to extend these regional roadmaps to the sub-regional, national, and sub-national levels. This effort aligns with each country's ambitious Climate Pathways objectives, which aim to establish action plans for sustainable buildings by 2025. Sri Lanka, Burkina Faso, Bangladesh, Ghana, India, and Senegal have kicked off this path through the partnership between UNEP/UN-Habitat and UNOPS. They also aim to assist in formulating national or regional strategies and policies, such as the Nationally Determined Contributions (NDCs). The roadmaps are crucial in attaining Sustainable Development Goals 12[6], 13[7], and 11[8].

[5] https://www.unep.org/resources/publication/2022-global-status-report-buildings-and-construction

[6] GOAL 12: Sustainable consumption and production

7 Take urgent action to combat climate change and its impacts

[8] Make cities and human settlements inclusive, safe, resilient and sustainable

OBJECTIVES

The objectives of the session are:

- To create awareness of the importance and the role of cities and national-level decisions on circularity in decarbonizing the built environment objectives by 2025, 2030, and 2050.
- Provide a forum for information exchange on roadmaps and action to decarbonize the buildings and construction sector across short-, medium-, and long-term considerations.
- To align stakeholders to work towards a shared vision to achieve zero-emission, efficient, resilient buildings and construction.
- To discuss next steps towards implementation of roadmaps and the role of cities in implementing them
- Launch the assessment framework at the national level for the circularity of buildings and its piloting in Bangladesh and Senegal while sharing the lessons learned.
- Present the work undertaken by the Materials Hub (managed by GlobalABC, OPN, and Life Cycle Initiative) and its Circular Built Environment working group (led by MoE Finland and RMIT University) through the 10 Whole Life Cycle Recommendations for the Buildings Breakthrough and a related case study platform.

SPEAKERS

- Moderator: Gulnara Roll, Head of Cities Unit, Mitigation Branch, Climate Change Division, United Nations Environment Programme, and Head of Secretariat of the Global Alliance for Buildings and Construction tbc
- Naila Ahamed Noor, Joint Secretary, Ministry of Housing and Public Works of Bangladesh
- Chris Pobee Abbey, Principal Architect, Ministry of Works and Housing of Ghana
- Moustapha Diop, Technical Counselor for the Director of Construction and Housing of Senegal
- GlobalABC
- Ms.Heike Litzinger, Head of Department for Urban Development / Sebastian Herold, Senior Policy Officer, BMZ
- Erin Sullivan Ansell, Africa Regional Energy Transition Advisor - UNOPS
- Raf Tuts, Director, Global Urban Solutions Division, UN-Habitat
- Emma Lappalainen, CEO, Finngroup Consultants
- Jennifer Oomen, Senior Director, Technical Excellence, Habitat for Humanity International

AGENDA

Time	Topic	Speakers (Moderator: UN-Habitat tbc)
17:00-17:05 (5 min)	**Welcome & Introduction**	Government of Bangladesh
	Section I: Partnerships for Global and Local Action	
17:05-15 (10 min)	**Presentation: Circular Built Environment: Why is it crucial to decarbonize the buildings sector and how can we utilize circularity approaches**. The presentation will discuss these issues and present the GlobalABC Materials Hub and its Circular Built Environment working group. The 10 WLC Recommendations for the Buildings Breakthrough will be presented with the related case study platform.	Emma Lappalainen, CEO, Finngroup Consultants
17:15-17:20 (5min)	**`Case study on the social impact of circularity in the built environment`**	Jennifer Oomen, Habitat for Humanity International
17:20-17:25 (5 min)	**Announcement of the National Circularity Assessment for Buildings and Construction**	UNOPS (tbc)
17:25-17:55 (30 min)	**Panel Discussion –** Leveraging partnerships at Global and Local levels to galvanize efforts towards Zero carbon and circularity through effective roadmaps to decarbonize the buildings and construction sector. What lessons have been learned in the current initiative in Bangladesh, Ghana, and Senegal that will be useful in the future? Organizations involved in the partnership share experience in developing roadmaps at national and local scales and provide inputs for future considerations for similar roadmaps to decarbonize the built environment. **Q&A**	Moderator: UN-Habitat (tbc) • Gulnara Roll, UNEP • UNOPS (tbc) • UN-Habitat (tbc)
	Section II: Achieving National and Local Climate Objectives through buildings and construction decarbonization roadmaps	
17:55-18:25 (30 min)	**Panel Discussion**- Why are countries interested in developing buildings and construction roadmap? What objectives are they looking to achieve? How does the roadmap fit into the national climate strategies, and how are countries planning to implement it? What is the role of cities in their implementation? Representatives from several countries will share their experiences developing a building and construction roadmap and how they intend to implement it. **Q&A**	Moderator: Gulnara Roll, UNEP Panelists: • Naila Ahamed Noor, Ministry of Housing and Public Works of Bangladesh • Chris Pobee Abbey, Ministry of Works and Housing of Ghana • Moustapha Diop, Ministry of Urbanism and Housing of Senegal
18:25-18:30 (5 min)	Call to action and closing	• Ms.Heike Litzinger, Head of Department for Urban Development / Sebastian Herold, Senior Policy Officer, BMZ (tbc)