

UNFCCC COP 25

Outcome Document

**Roundtable: “Circular Economy: Cities and Buildings as
hubs for climate action”**

Marrakech Partnership for Global Climate Action

19 December 2019
10:00 – 10:30

Organised by Global Alliance for Buildings and Construction (GlobalABC), ICLEI
with support from FMDV, REN21, CCAC, WBCSD, ICC, UN-Habitat, SLoCaT,
SIWI/AGWA, FAO, ITF

MPGCA “Thematic”: Circular Economy: Cities and Buildings as hubs for climate action

Key Messages:

Circularity presents a **huge opportunity** and is essential to achieving the 1.5-degree target of the Paris Agreement – since for this we need a systemic shift. Over 70% of resource use and GHG emissions are generated in cities; yet 35-55% of reduction of resource use and greenhouse gas emissions is possible through integrated approaches that span from integrated urban planning to sector and cross-sector optimization to behavior change. Buildings and construction are responsible for 39% of energy related greenhouse gas emissions, of which 11% for process-related emissions. The event showed that there is no shortage of solutions that are waiting to be scaled up.

To bring about the transition from linear to circular economy approaches three main levers were highlighted across the different interventions:

- **Change in Culture:** Putting emphasis on livability of cities and well-being of citizens through a people-centered approach.
- **Change in production methods:** Turning from product to a service focus. Shifting from designed obsolescence to design for sharing and design for use which therefore will become design for youth.
- **Collaborative economies focused on a just transition:** Taking a systems perspective beyond single steps and solutions, working across sectors and value chains, and systematically including the informal economy through participatory approaches.
- **Collaborative, ambitious governance:** Foster regional collaboration and municipalities working together to develop circular economy solutions at the appropriate scale. Setting ambitious goals and targets, setting standards that pull and push the market, and incentives that help make offer and demand meet. Vertical integration of policies between different levels of governance, and community engagement in design. National and local governments need to act as a model through their own procurement decisions, thereby driving market shifts.

Outcomes (please complete under the following headers, concrete input on how your event addressed the questions)

Pre-2020 action:

What are the current challenges, opportunities and metrics (such as data and analysis) for pre-2020 actions to realize the transition using technology, innovation and finance for this thematic area?

Action is happening on the ground – some companies and civil society are starting to shift production models, but we need to scale it up. For this, effective regulation is essential. This includes effective public procurement measures, but also consistent regulation regarding for instance waste disposal, as well as green space in urban planning, and design for reuse principles. We also need successful approaches for working with the informal economy, that often have already developed circular approaches. This needs to be recognized and learned from.

We can measure progress for instance by analysing waste flows, by surveying companies (for instance through partnering with universities), by measuring chemical flows, through indicators of the urban metabolism, e.g. the number of circular jobs created in a city.

For such measures to be scaled up we need to see the city as living organism, as a city that breathes and that is composed of and for its people. Not only buildings, but cities need to become material banks where we design for next use and youth. We also need to fundamentally shift the way we measure progress in cities: amount of green space, number of songbirds, health, well-being. Buildings need to act as cities' solution to climate change and path to circular economy instead of causing emissions and using up resources.

What are the pre-2020 actions that have been implemented that accelerates systemic transformation, including changing behavioural patterns and leapfrogging conventional development paths? What needs to be improved or enhanced?

All of the following are starting to be implemented but need to be taken to scale for global impact.

- Shared business plants where one businesses' waste becomes another one's product (e.g. Turku, Finland).
- Creating circular spaces in cities that are also participative, (e.g. neighbourhoods in India)
- Setting effective regulation: green plot ratio – when constructing buildings, developers develop as much green space as they take (Singapore); consistent waste regulation making waste-take back/reuse profitable.
- Systematically share spaces in cities (Orbia).
- Maximize reuse of essential resources, such as water – from rooftops and floor (Arup).
- Turning waste into profit: fly ash for cement (Dalmia Cement); make CO₂ into fertilizer (Dalmia Cement); PET bottles and cigarette butts for building insulation (Singapore).
- Extending producer responsibility ensuring take-back and re-use/design of used products and/or waste products such as construction waste (ROCKWOOL).
- Setting ambitious circularly targets (e.g. Scotland with their circular economy strategy to make things last, zero waste, and their emissions reduction target).

References to or evidence of in the Climate Action Pathway/Yearbook of Global Climate Action/Global Climate Action portal (NAZCA)

- *How does the future need to look like in 2050 in order to reach the 1.5-degree, net-zero, resilient goal and how we are moving towards this future?*

We measure progress through circularity metrics and people and their well-being at the centre of cities and all urban planning. Processes are completely participatory and all regulation for cities and buildings has circularity as well as resilience at its heart. Businesses operate entirely according to circularity principles, including design for reuse, open ended producer responsibility, and product service systems. Buildings are material banks for cities, guarding precious materials for future use. Buildings are designed and built through nature based approaches, and with local and locally adapted materials, not using virgin materials anymore. Buildings and cities are closed looped systems and are net zero regarding carbon emissions, but also regarding waste and use of new, virgin materials

- *What are the systemic transformational actions and solutions to transition to this future, providing evidence that is science-based?*

Overall: We need to measure progress differently/**measure what matters**; This includes putting wellbeing at the heart of measurement complemented by concrete indicators such as green spaces, air pollution, circular jobs, and chemical flows. cities and companies need to put in place circularity visions, e.g. zero waste and emissions targets as well as targets for shift in production methods.

National and local governments: We need to **change regulation, putting circularity at the heart**, and use public procurement as lever -the public sector has a nudge role here.

Business and governments jointly: We need to **re-define waste as a resource** (e.g. fly ash, waste to biogas, CO2 as fertilizer) and systematically use it in constructing buildings. All waste needs to be used!

All actors: We need to foster a **Change in Culture**, putting emphasis on livability of cities and well-being of citizens through a people-centered approach. As part of that we need to recognize that global demand is a key driver for linear and for circular economies. We need to recognize our role as global citizens and seeing SMEs are drivers.

Businesses: We need a complete shift in design: Instead of planned obsolescence, design for re-use. We need to turn from **product to a service focus**. Shifting from designed obsolescence to design for sharing and design for use which therefore will become design for youth.

Civil society, all levels of government, businesses: We need collaborative economies focused on a just transition: Taking an all of economy, a systems perspective beyond single steps and solutions, working across sectors and value chains, recognizing the informal economy where circular approaches are sometimes already adopted, systematically adopt participatory urban planning principles, and systematically share spaces in cities (e.g. shared cities).

All levels of government: We need collaborative governance: Highlighting the importance of ambitious goals and targets, setting standards that pull and push the market, and incentives that help make offer and demand meet. Vertical integration of policies between different levels of governance, and community engagement in design. Acting as a model through own procurement decisions, thereby driving market shifts.

2019 United Nations Climate Action Summit

- *How can the transformational outcomes of the UN SG Summit be taken forward and scaled up to accelerate the transition?*

The 2019 United Nations Climate Action Summit highlighted the need for climate plans to go beyond mitigation strategies alone. Climate strategies must “show the way toward a **full transformation of economies in line with sustainable development goals**”. Circular economy is an opportunity to transform the real economy both nationally and locally. Beyond climate action, **circular development yields multiple co-benefits**, including net job creation and poverty alleviation (SDGs 1, 8, 10), improved sanitation (SDG 6, 11), innovative and sustainable production systems (SDGs 9, 12), protection of local



ecosystems (SDGs 14, 15), efficient use of urban assets and increased resilience of the local territory (SDG 11), and ensuring access to affordable, reliable, sustainable and modern energy for all (SDG 7).

This event demonstrated how circular economy in cities and buildings are essential to achieving the important commitments made and vice versa. More national and local governments committing to **ICLA zero carbon buildings by 2050**, especially when coupled with increasing commitments to adopt and incorporate **nature-based solutions** into buildings and cities, can drive the transition to circular economy with cities and buildings leading the way. Increased action towards energy efficiency (through the **3% club for energy efficiency**) and to addressing rising cooling demand (through the **Cool Coalition**) also contribute, as do the important commitments by financial organizations to divest from fossil fuels.