Event Summary

Global Alliance for Buildings and Construction

In collaboration with:

- Cooling in buildings contributes greatly to global warming, with emission levels equivalent to the ones of Japan, and demand for it is rising rapidly.
- Energy used for space cooling tripled between 1990 and 2016, and is set to triple again by 2050, which would require adding the equivalent of all electricity demand today in the US and Germany.
- At the same time, in a warming world cooling must be provided to protect vulnerable populations
- Decarbonise cooling in buildings using a comprehensive approach is fundamental to achieve the Paris Agreement goals and ensure a Green Recovery
- Reducing the need for mechanical cooling is a critical first step for creating “Cool Buildings”
- It can be done by implementing passive designs, retrofitting, cool roofs, green infrastructure on and around buildings, and sustainable construction material that naturally controls humidity
- Super efficient appliances, district cooling systems and renewable-powered cooling are viable sustainable technologies to close the remaining cooling gaps. Passive designs including retrofits can reduce energy demand from cooling by 50-70%
- Cooling strategies that include natural ventilation, filtration and fresh-air circulation reduce health risks related to the spread of airborne illnesses

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- Local materials are part of the solution, for example agro-waste such as coconut products can effectively reduce heat and absorb moisture. A shift in perception on which buildings materials are viable is needed, with local ecosystems and markets at the centre of the discussion.
- Nature-based solutions are key for natural cooling in buildings and cities:
  - Urban forests and other nature-based solutions reduce average ambient temperatures, increase liveability and air quality or urban environments, provide recreational spaces. Indeed, trees are some of the most viable options for natural cooling.
  - Nature-based solutions need to included in urban design strategies.
- Additional practices to ensure heat risks reductions for vulnerable populations include city-wide Heat Action Plans
- There is an urgent need to rethink how we use and cool buildings around the world, but technical, policy and financial solutions already exist, ready to be implemented at scale
- Solutions need to be tailored to local physical and social circumstances and supported by awareness raising and technical capacity building of national and subnational policy makers