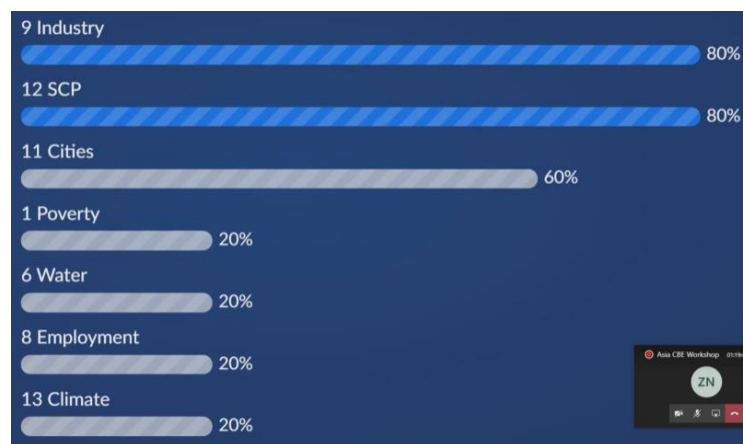


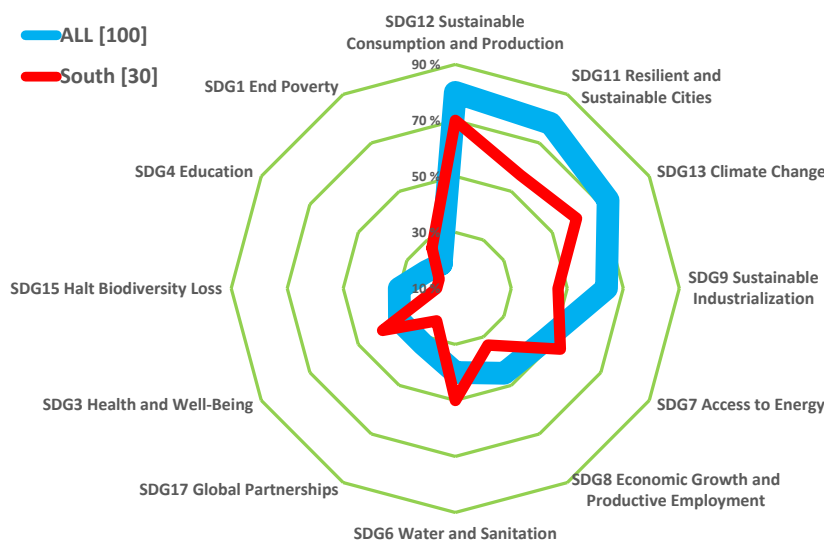
## Circular Built Environment in Asia virtual Workshop 28 October 2020

Pekka Huovila and Usha Iyer-Raniga from the One Planet Sustainable Buildings and Construction Programme (SBC) Coordination Desk explained the work on circularity in the built environment that is not explicitly mentioned in the **2030 Agenda** even though many of its targets relate closely with circularity. SBC has conducted a survey to seek feedback from built environment experts on the core indicators for circular built environments (CBE) globally, through ranking the importance of the Sustainable Development Goals (SDGs) and prioritising the indicators corresponding to their respective targets.

The SDGs were discussed with a small group of experts having experience in SBC work at least in India, Sri Lanka and Jordan. SBC has a mandate to implement **SDG12** to accelerate the shift towards sustainable consumption and production (SCP) patterns. The group identified as other most important sustainable development goals for circularity **SDG9** Industry and **SDG11** Cities. Also, **SDG1** Poverty, **SDG6** Water, **SDG8** Employment and **SDG13** Climate were recognized.



This correlates well with the SBC survey that based on 100 responses by global experts (shown in blue line). Out of 100 respondents, 30 of them were from Asia, Africa and Latin America (shown in red line). It can be noted that the survey responses from the Global South prioritized **SDG3** Health, **SDG6** Water and **SDG7** Energy higher than the overall sample.



Zeenat Niazi from Development Alternatives India presented highlights from her State of Play for Circular Built Environment in Asia report that will be published in the <https://beyond2020.se/> Conference 4 November.

Her key findings describing the state of play included the following

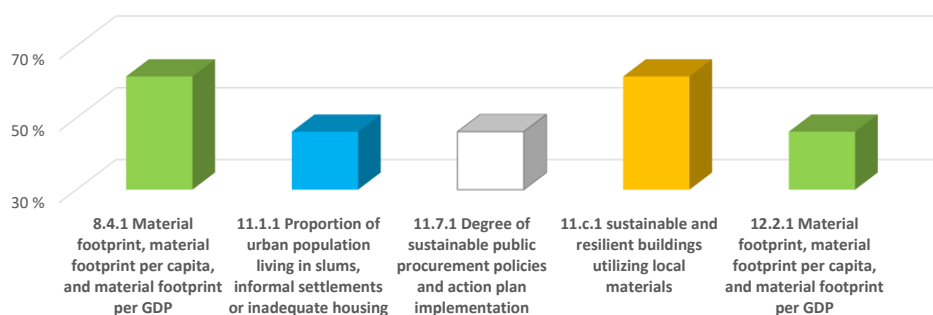
- Diversity and vulnerability
- Rapidly urbanising, yet over 50% rural
- Access and quality issues in shelter persist for the poor
- Greenfield as well as transforming brownfield trends
- Rich traditions and resources of bio-mass use, and secondary resources from Industrial processes
- Large construction workforce, which is largely informal and unskilled.

Key opportunities offered by circular models in building and construction for the region

- Research & technology – New cradle to cradle approaches with re-usable, modular, assembly-based construction systems and multi-purpose space design, biomass based regenerative systems
- Policy & planning support – Capacity building of national and sub-national agencies for data and tracking systems, LCA based decision making methods, education and skills curricula, standards and public procurement methods
- Business Models – New green jobs and businesses of different scales, partnership models
- Evidence for impact – Documentation and knowledge sharing for triple win solutions.

The discussion that followed included e.g. sharing the reports with governments and having follow up discussion with them in selected countries. The applicability and further development of traditional construction was introduced by ‘engineering’ vernacular solutions.

Indicators used to measure targets relating with goals were then discussed. SBC Programme has selected based on the expert survey, four global core indicators and ten secondary indicators for circularity. The objective of this workshop was to discuss the indicators that are found relevant in Asia for assessing the state, setting objectives and monitoring trends in the built environment. The small sample of 11 respondents from Asia in the SBC survey had prioritized the following five indicators



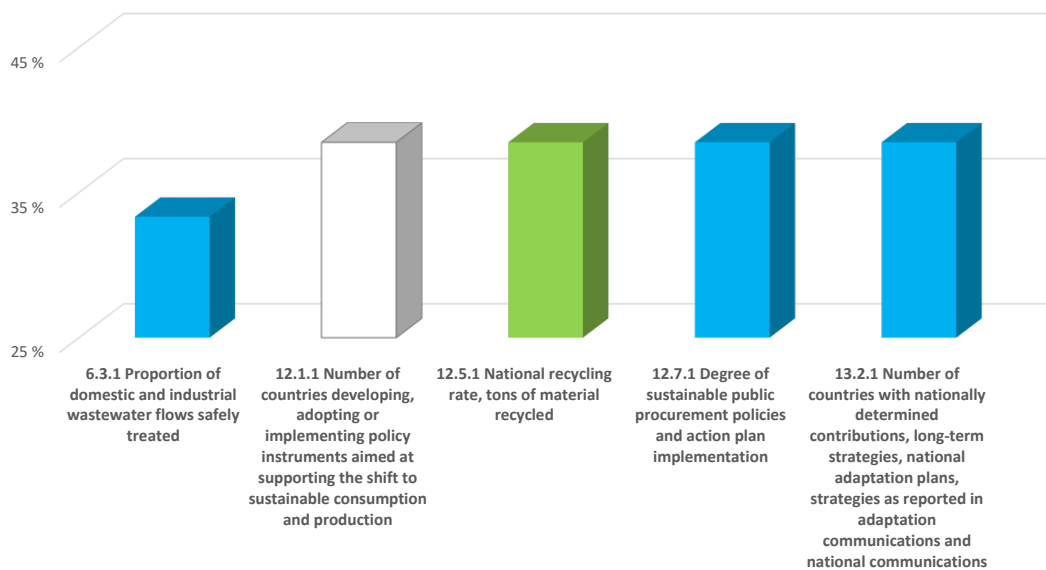
- **8.4.1/12.2.1** Material footprint (**SBC Core Indicator** shown in green)
- **11.1.1** Slum upgrading (*SBC secondary indicator* shown in blue)
- **11.7.1** Public procurement (white means it did not qualify amongst 4+10 global SBC indicators)
- **11.c.1** Use of local materials (yellow: a better indicator is currently sought for it).

The workshop experts were then asked to select three most important indicators out of five second highest scoring indicators in the survey by the Asian respondents. 12.1.1 Number of countries developing, adopting or implementing policy instruments aimed at supporting the shift to sustainable consumption and production was chosen as the most important indicator out of those

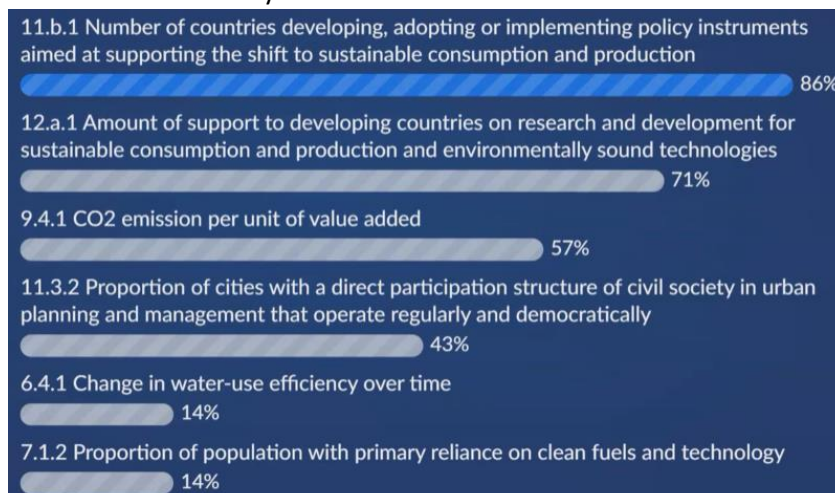
following our earlier discussion on aligning with national plans. It also relates with environmentally friendly and recyclable materials. The mismatch between materials used and existing standards and industry norms was pointed out and national policy orientation is needed to fill that gap.

The other important indicators selected were **12.5.1 National recycling rate, tons of material recycled** which is SBC Core Indicator and **12.7.1 Degree of sustainable public procurement policies and action plan implementation** that is SBC secondary indicator. These two were followed by SBC secondary indicator **13.2.1 Number of countries with nationally determined contributions, long-term strategies, national adaptation plans, strategies as reported in adaptation communications and national communications** that is, like 12.1.1, a generic one and could be specified to focus on circularity aspects. In this workshop **6.3.1 Proportion of domestic and industrial wastewater flows safely treated** was not prioritized even though it is SBC secondary indicator.

Compact urbanization as an important concept and passive solution for circular economy and material efficiency in Jordan was introduced. The results from the SBC survey by the small number of experts from Asia is shown below

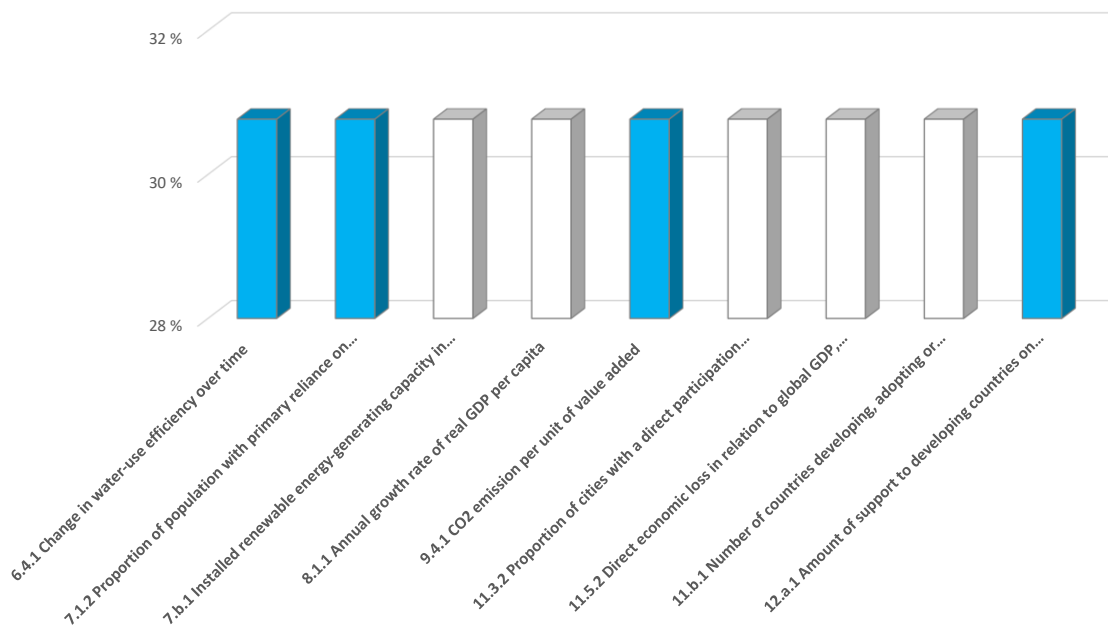


The next set of nine potential circularity indicators based on SBC survey in Asia were scored in the workshop. **11.b.1 SCP policy instruments** scored highest followed by **12.a.1 financial support** and SBC secondary indicator **9.4.1 CO2 emissions** and **11.3.2 public participation**. **6.4.1 water-use efficiency** and **7.1.2 clean fuels and technology** that are both SBC secondary indicators did not rank as high in this workshop than in the SBC survey.



SBC secondary indicator **7.b.1 Installed renewable energy-generating capacity in developing countries** was not seen so meaningful in this discussion. The same stands for **8.1.1 GDP growth** and resilience and natural disaster related **11.5.2 Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services**.

The discussion on these indicators explained that looking at materials, **6.4.1 water** is not seen so important. On **11.3.2 participation**, it was noted that industry participation is seen more to happen than participation at a smaller scale. It should include all stakeholders. The results of the SBC survey are still shown below where these nine indicators were seen as important



Finally, the use of tools was discussed. [MaS-SHIP](#) project that was funded by 10YFP Trust Fund and run in the SBC Programme. Decision tool for the use of local materials in affordable sustainable housing is accessible open source. It has been shared in Universities already, but it should be spread to governments, financiers and building project clients. The challenge still remains on populating the data. Combination of incentives could speed up implementation. Building passport and product passport were raised. Linking those to the building directory is seen important.

SBC will next launch seven reports from Europe, US, Australia and New Zealand, GCC countries, Asia, Africa and Latin America and the Caribbean in the <https://beyond2020.se/> Conference 4 November 2020 complemented by the eighth report on global conclusions. The work on circularity indicators continues in SBC Programme at least until 2022. The SBC [survey](#) can be still complemented.

Many thanks for your most valuable contribution!

We'll stay in touch

[pekka.huovila@figbc.fi](mailto:pekka.huovila@figbc.fi)

[usha.iyer-raniga@rmit.edu.au](mailto:usha.iyer-raniga@rmit.edu.au)