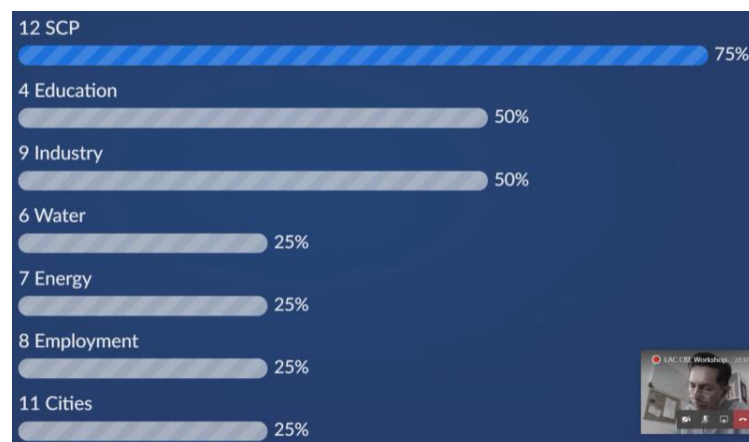


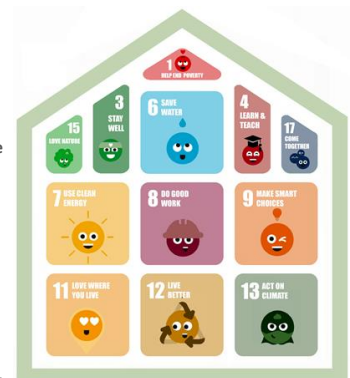
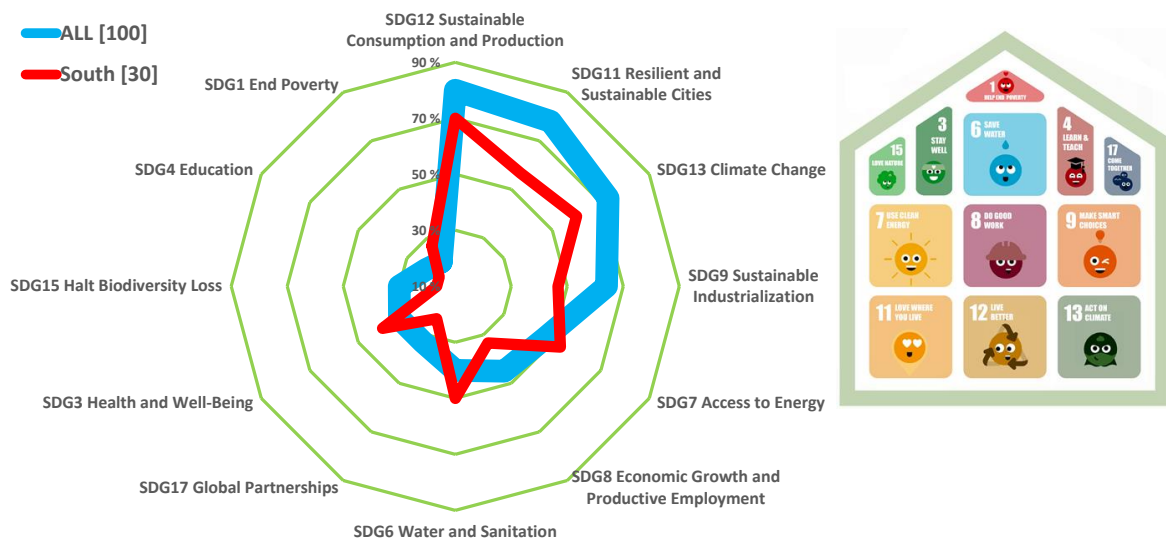
## Circular Built Environment in Latin America Workshop 22 October 2020

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 SDGs and prioritising the indicators corresponding to respective targets.

The SDGs were discussed with a small group of experts having experience in SBC work at least in Argentina, Colombia, Ecuador, Guatemala, Nicaragua and El Salvador. SBC has a mandate to implement SDG12 to accelerate the shift towards sustainable consumption and production (SCP) patterns. The group identified other important sustainable development goals for circularity SDG4 Education and SDG9 Industry, and after those SDG6 Water, SDG7 Energy, SDG8 Employment and SDG11 Cities.

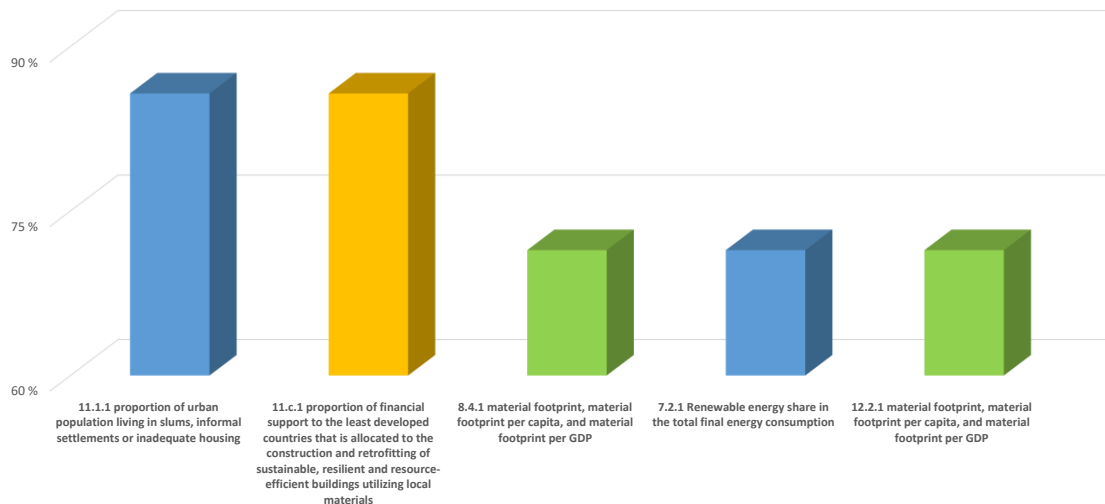


This correlates well with the SBC survey that based on 100 responses by global experts (shown in blue line), the most relevant SDGs to circularity highlighted in addition to those, also SDG13 Climate change. Out of 100 respondents, 30 of them were from Asia, Africa and Latin America (shown in red line). The survey responses from the Global South prioritized SDG3 Health, SDG6 Water and SDG7 Energy higher than the overall sample. In this workshop, SDG4 Education was also seen very important.



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 Latin America for assessing the state, setting objectives and monitoring trends in the built environment. The very small and not statistically representative sample of LAC respondents in SBC survey had prioritized the following five indicators

- **11.1.1** Slum upgrading (*SBC secondary indicator*)
- **11.c.1** Use of local materials (a better indicator is currently sought for this)
- **8.4.1/12.2.1** Material footprint (**SBC Core Indicator**)
- **7.2.1** Renewable energy (*SBC secondary indicator*).



The discussion on these indicators raised e.g. the following issues

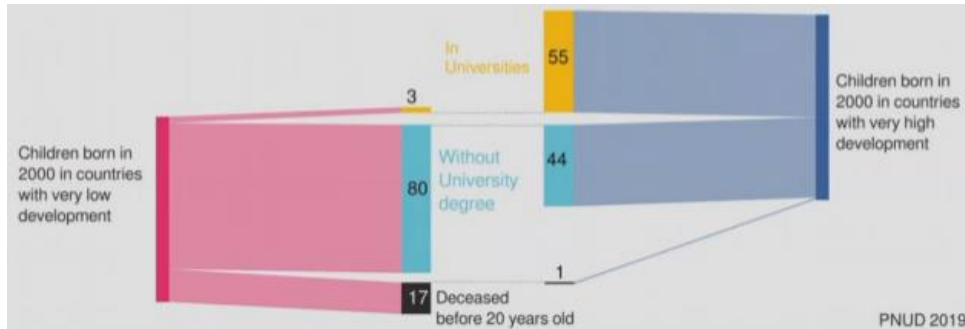
- In rural environments, reusing and recycling materials is common. It takes usually place from a neighbour to another whereas in cities where there is demolition, organized recycling in the buildings and construction sector is only starting and people are interested in learning what can be rescued.
- Some information about energy consumption exists. At present, collecting construction related information is only starting.
- The knowledge of recycling building materials is very new in Latin America. Instead, there is a tradition of recycling of bottles, paper and metals.
- There was an attempt to make business in recycling solid construction demolition in Cali, Colombia that had to be given up because it was not supported.
- Recycling happens in the informal sector, but e.g. in Argentina, there's an attempt to develop a legislative framework covering also it.
- One challenge is that the existing buildings constructed in Latin America have not been designed for recycling.
- The informal sector exploits only what gives them immediate benefit, such as iron scrap or glass.
- The de-construction is not happening piece by piece, buildings are just demolished.
- Recycled materials are not used because they are just for poor people. In your new house you don't want to use old windows or old tiles, you want everything new.

Paul Moreno from Ananda Cooperative Ecuador presented findings from his State of Play of Circular Built Environment in Latin America report that was written before the pandemic. The forecasts need to be re-visited during the coming two or three years. He said, it's challenging to make cities a better

place to live. Cities must be resilient. They should start to produce their own food and recycle the water they use. Governments and municipalities need to plan how that works.

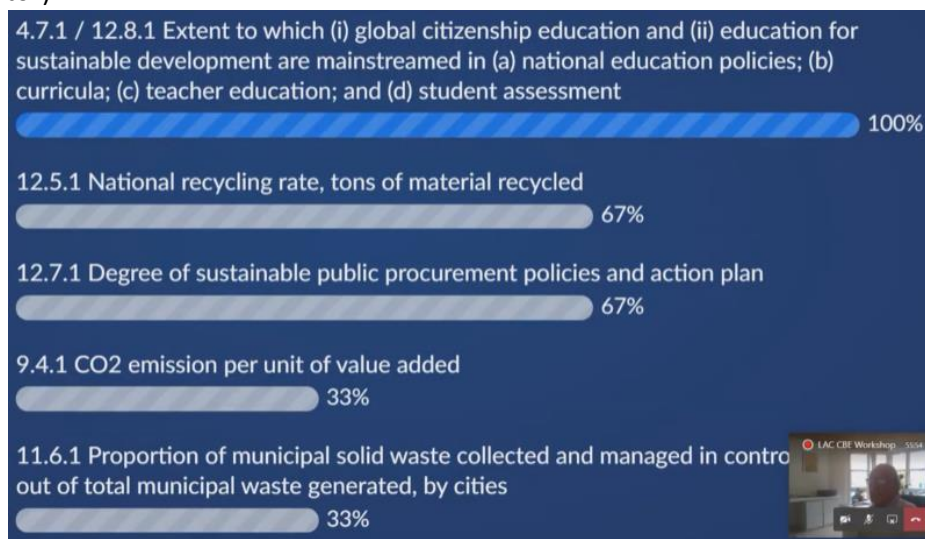
Education is needed at all levels. Awareness raising and training of sustainable construction practices so that a well-educated mason as an example knows how to save water and how to save cement. Upgrading and retrofitting industry with the use of sustainable energy, the use of debris and construction waste as resources has a lot to learn. The use of LC3 as developed by the EcoSur network is an example of a good practice. Public procurement is very important. They must require from their suppliers sustainable and circular practices.

Paul showed also UNEP statistics that only 3 % of the in very low development countries follow the education path to Universities compared with 55 % in very high development countries.

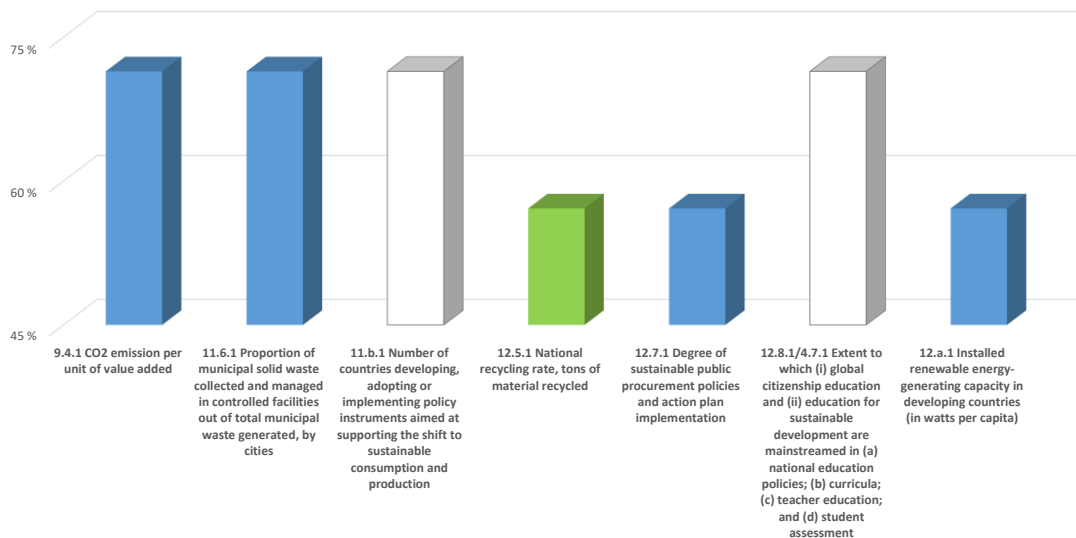


A second set of potential indicators was discussed

- 4.7.1/12.8.1 Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment
- 9.4.1 CO2 emission per unit of value added (*SBC secondary indicator*)
- 11.6.1 Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities (*SBC secondary indicator*)
- 11.b.1 Number of countries developing, adopting or implementing policy instruments aimed at supporting the shift to sustainable consumption and production
- 12.5.1 National recycling rate, tons of material recycled (**SBC Core Indicator**)
- 12.7.1 Degree of sustainable public procurement policies and action plan (*SBC secondary indicator*)
- 12.a.1 Installed renewable energy-generating capacity in developing countries (*SBC secondary indicator*)



4.7.1/12.8.1 Education, 12.5.1 recycling and 12.7.1 procurement topped in this workshop followed by 9.4.1 CO2 emission and 11.6.1 municipal solid waste collection. The results of our survey from the LAC region respondents are shown in the picture below.

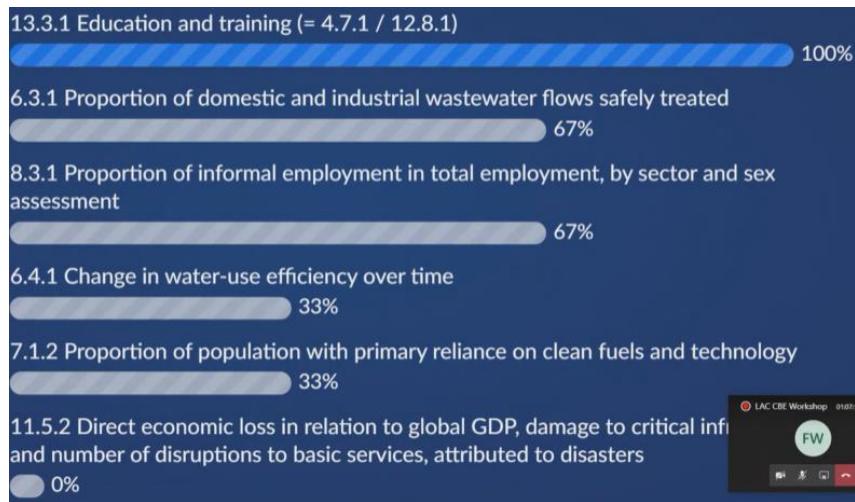


The discussion on these indicators raised e.g. the following aspects

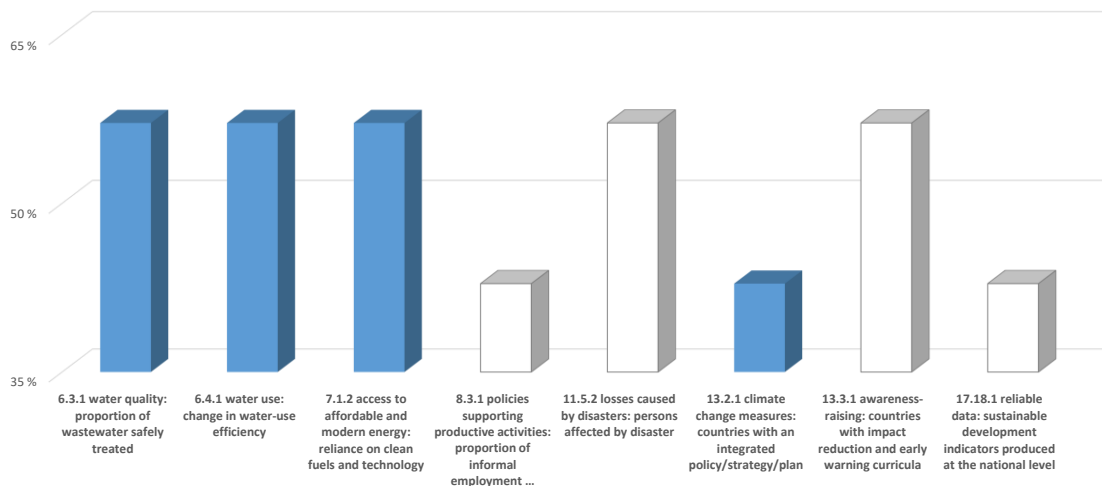
- Education is important since if the citizens don't choose circular solutions, if the people don't understand to separate the waste, if we don't have population that is conscious about their consumption patterns, we need to start there to have more materials to recycle to our industry to have market for new products.
- Unfortunately, that is right. However, during the past 10 to 15 years there is a lot of change in this respect. It is moving slowly. In construction materials, it is, however, not yet happening.
- How do we blend traditional knowledge with modern times? It does not work in cities. How do we teach natural cycles to people who live in a concrete environment remote from nature? It is important to recover the traditional knowledge.

A third set of potential indicators was discussed

- 6.3.1 Proportion of domestic and industrial wastewater flows safely treated (*SBC secondary indicator*)
- 6.4.1 Change in water-use efficiency over time (*SBC secondary indicator*)
- 7.1.2 Proportion of population with primary reliance on clean fuels and technology (*SBC secondary indicator*)
- 8.3.1 Proportion of informal employment in total employment, by sector and sex assessment
- 11.5.2 Direct economic loss in relation to global GDP, damage to critical infrastructure and number of disruptions to basic services, attributed to disasters
- 13.2.1 Number of countries with NDCs, national adaptation plans ... reported (*SBC secondary indicator*)
- 13.3.1 Education and training = 4.7.1 / 12.8.1
- 17.18.1 Proportion of sustainable development indicators produced at the national level with full disaggregation when relevant to the target, in accordance with the Fundamental Principles of Official Statistics.



13.3.1 (=4.7.1/12.8.1) Education followed by 6.3.1 wastewater and 8.3.1 informal employment were prioritized in the workshop before 6.4.1 water-use efficiency and 7.1.2 reliance on clean fuel technology. The results of our survey by LAC respondents are shown in the picture below.



The discussion on these indicators touched e.g. the following elements

- companies and people say to the government that without a legislation to obligate everyone, no one is going to do anything. A responsibility framework is needed.
- We need also a political decision. With information and with tools but without a political decision we cannot advance.
- The politicians react to what the people generally talk about or what the media is talking about. The more pressure coming for circularity the become mainstream, the better chances we have.
- Even if the laws are there, they are followed first when they are profitable to your business.

Next steps

- SBC will launch seven reports from Europe, US, Australia and New Zealand, GCC countries, Asia, Africa and the LAC region in the <https://beyond2020.se/> Conference 4 November 2020 complemented by the eighth report on global conclusions
- our work on indicators still continues at least until 2022.

Many thanks for your most valuable contribution!

We'll stay in touch