

Recommendations for Circular Built Environments

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One planet
build with care



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Circular built environments

What?

Circular economy is about: designing out waste, keeping materials and products circulating in the system, optimising resources, providing long lasting solutions so we do not draw on the use of virgin resources, and regenerating natural systems.

Why?

Building stock will double by 2050 in Asia, Africa and Latin America. Global material use will double by 2060. Building materials comprise a third of material use. Concrete will contribute to 12% of GHG emissions by 2060.



Where?

Focus will be on the new growth regions of the world, in Africa, Asia, Latin America and the Caribbean. By 2050, almost 80% of the world's population is expected to be in urbanized Asia and Africa.

Advantages:

- Reduce and eventually eliminate the use of virgin resources.
- Reduce and eliminate environmental impact.
- Support local jobs and local economies

Collaboration and financing

- Apolitical collaboration bet various stakeholders
- Changing existing practices with circularity in mind

Collaboration and financing

New business models

New business models and technologies

- From owning to sharing/renting
- New opp from green design and valuation
- New procurement models
- Building passports
- High value recovery products in renovation

Locally adapted solutions

Local solutions and practices

- Local engagement and local knowledg
- Support economy, local jobs
- Multiplicity of solutions supporting local

Sustainable procurement

- Value add services
- New markets to be explored
- Repair and consider durability
- Collaborate to anticipate new standards & regs

Life cycle thinking

Life cycle thinking

- Capital cost
- Operating cost
- Building footprint
- Up-skilling
- Green jobs and green skills

Procurement

Building materials

Building materials and waste

- Material reuse
- Bio-based materials

Adaptation and resilience

Adaptation and resilience

- Responsibly sourced materials, local tech, ren energy
- Diversity in the supply chains
- Skilling and reskilling needed

Education and skills

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- New vocational/trade skills, higher ed
- Circular maintenance skills
- Circular renovation
- Waste microgrids

Think and act differently

Think and act differently: linear to circular

- Government to lead
- Industry to innovate supply chain
- Clients and consumers

Monitoring

and

reporting

Monitoring and reporting

- 12 SDGs out of 17
- SDG 12, 11, 13, 9, 7, 8, 6, 17, 3, 15, 4, 1
- Core indicators: 12.2.1/8.4.1, 12.5, 11.c.1
- 10 secondary ind: 9.4.1, 11.6.1, 7.2.1, 6.3.1, 6.4.1, 7.1.2, 13.2.1, 12.7.1, 11.1.1, 12.a.1