



Bureau of Energy Efficiency



सत्यमेव जयते
Government of India
Ministry of Power



german
cooperation
DEUTSCHE ZUSAMMENARBEIT

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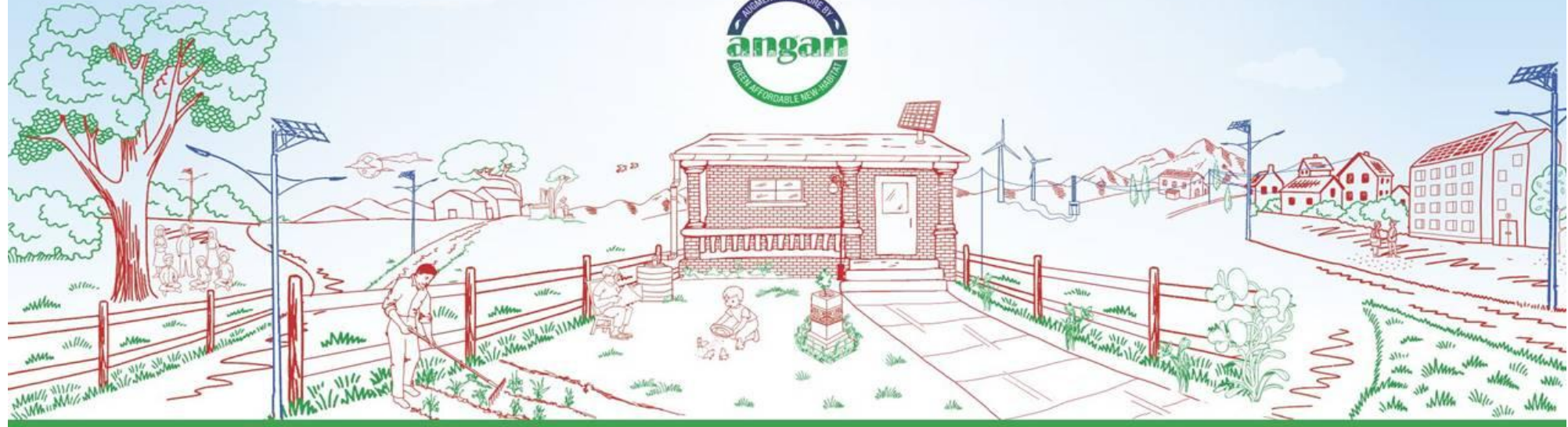
ANGAN

Augmenting Nature by Green Affordable New-habitat

A Courtyard for Revolutionary Change in Building Energy Efficiency

An International Conference on Building Energy Efficiency

9th-11th September, 2019 | Hotel The LaLiT, New Delhi





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THIS PRESENTATION WAS SHARED BY

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FOR THE SESSION:

“Circular Economy”

DURING ANGAN 2019

Knowledge Partner

teri | THE ENERGY AND
RESOURCES INSTITUTE
Creating Innovative Solutions for a Sustainable Future

Event Partner

TEC INDIA TM
EVENT & BRAND MANAGEMENT CO.

Circular Built Environment



9th September, 2019, New Delhi

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www.oneplanetnetwork.org/sustainable-buildings-and-construction



- An implementation mechanism of Sustainable Development Goal 12
- The One Planet network: a multi-stakeholder partnership for sustainable development
- A network that leads the shift to sustainable consumption and production (SCP) providing unified and coherent direction, tools and solutions



611 Programme Partners



130 National Focal Points



**Sustainable
Food Systems**
PROGRAMME



**Sustainable
Lifestyles & Education**
PROGRAMME



**Sustainable
Buildings & Construction**
PROGRAMME



**Consumer
Information**
PROGRAMME

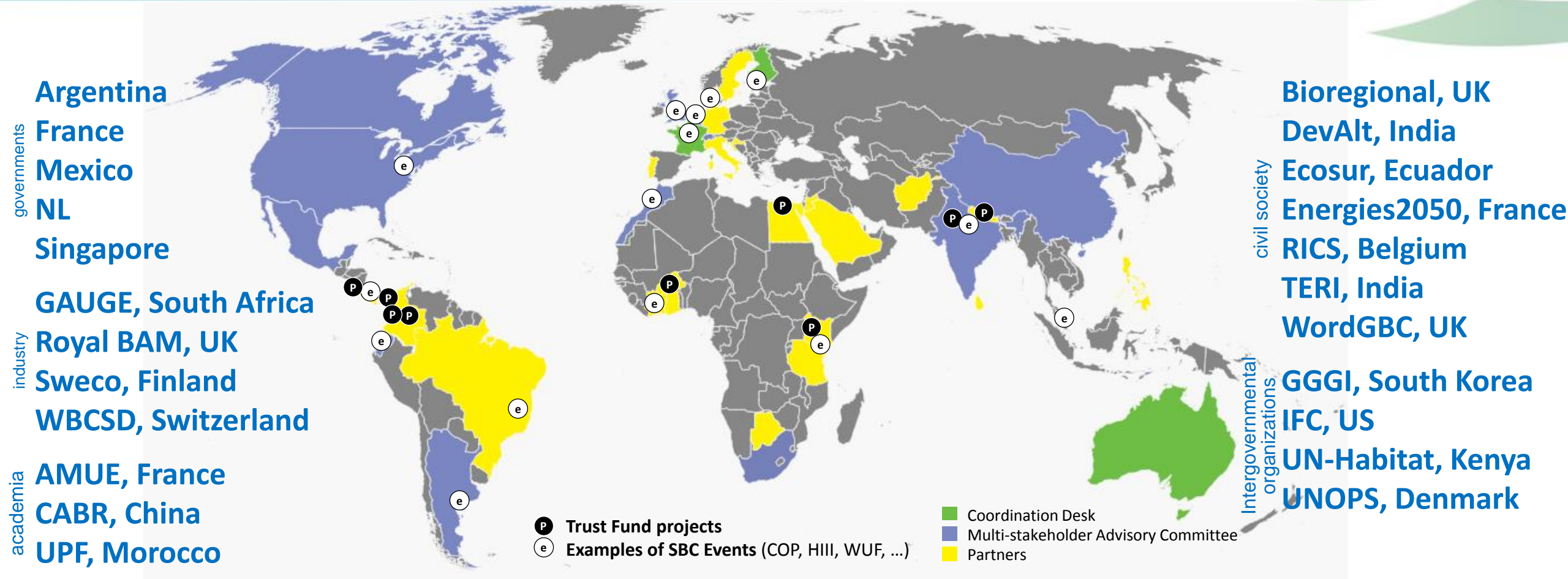


Sustainable Tourism
PROGRAMME
Committed to drive the change



**Sustainable
Public Procurement**
PROGRAMME

SBC Network



Argentina

France

Mexico

NL

Singapore

GAUGE, South Africa

Royal BAM, UK

Sweco, Finland

WBCSD, Switzerland

AMUE, France

CABR, China

UPF, Morocco

Bioregional, UK

DevAlt, India

Ecosur, Ecuador

Energies2050, France

RICS, Belgium

TERI, India

WordGBC, UK

GGGI, South Korea

IFC, US

UN-Habitat, Kenya

UNOPS, Denmark

P Trust Fund projects
e Examples of SBC Events (COP, HIII, WUF, ...)

Green Coordination Desk
Blue Multi-stakeholder Advisory Committee
Yellow Partners

Coordination Desk

Governments, Industry, Civil Society, Academia, Inter-Governmental Organizations

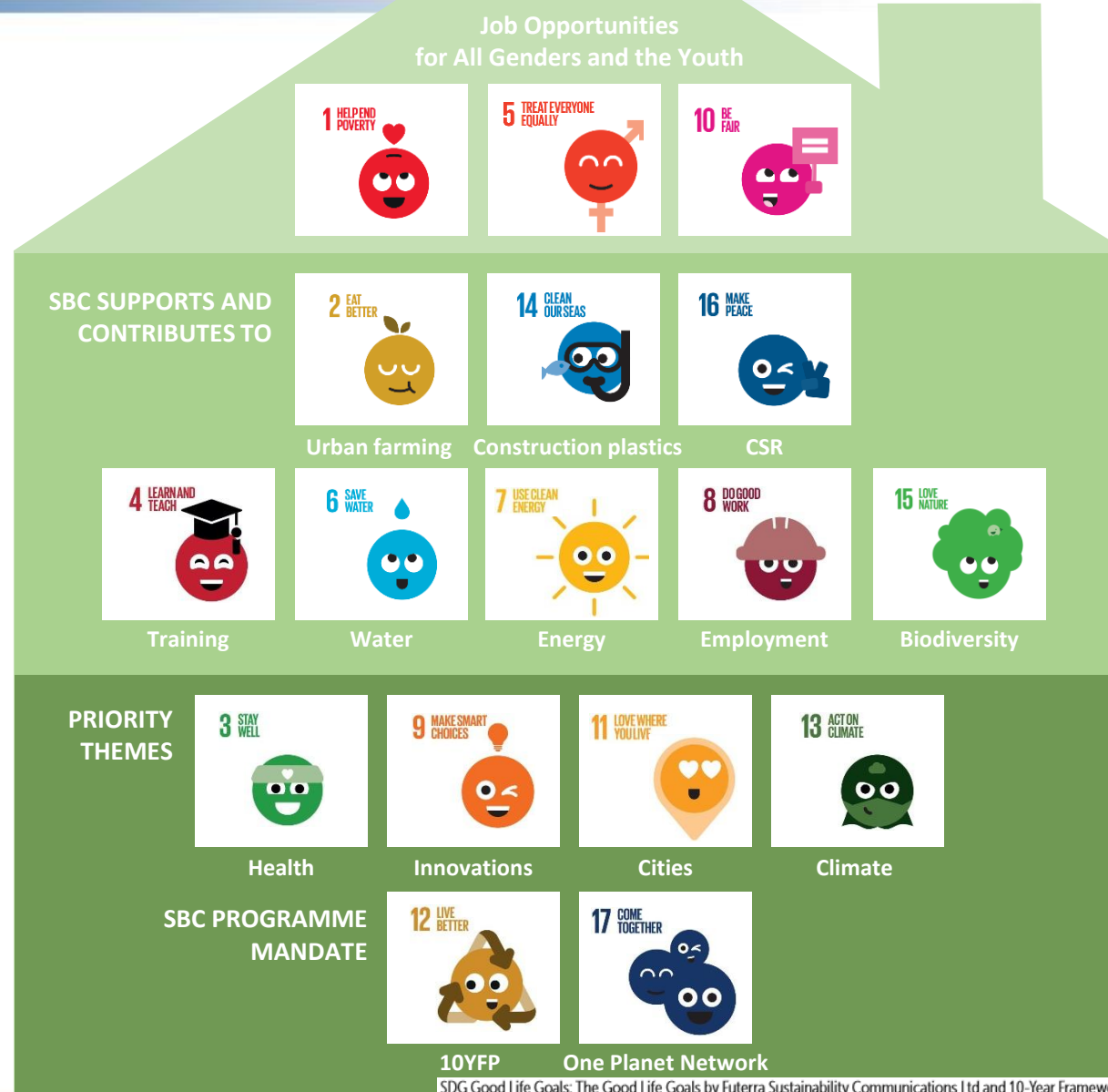
+ Partner Network



SBC Programme 2015-2022

Two Thematic Focus Areas 2019-2022

- Affordable and resilient built environment
- Responsibly sourced materials in a circular built environment



Outcomes

- Implementation projects
- Building the knowledge base
- Outreach, awareness raising and capacity building

Five Trust Fund Projects

- Aburrá Valley: Sustainable policies Colombia
- MaS-SHIP Decision Support Toolkit in India
- SHERPA design tool: Burkina Faso, Kenya, Nepal, *Nicaragua*, ... (en, fr, es)
- Sustainably Sourced Concrete: Colombia, Costa Rica, Panama
- Nabta Smart Town: Energy Efficiency in Egypt

Outreach Activities

- COP21 Le Bourget, COP22 Marrakech, COP23 Bonn, COP24 Katowice, COP25 Santiago?
- Habitat III Quito
- World Urban Forum 9 Kuala Lumpur
- WCEF2017 Helsinki, WCEF2019 Helsinki
- HLPF New York
- WBC16 Tampere, SBE16 Tallinn, WSBE17 Hong Kong, SBE19 Helsinki, WSBE20 Gothenburg?

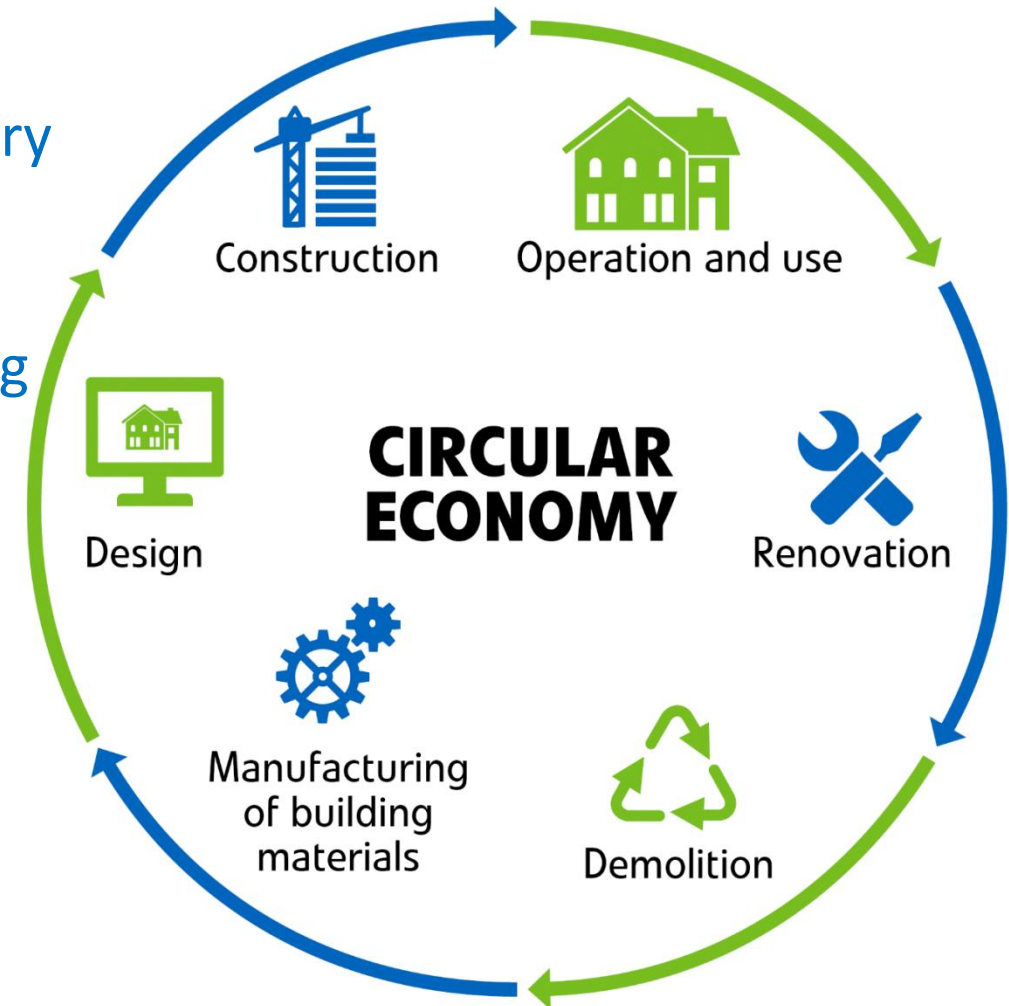
Building the Circular Economy Knowledge Base

- publications, video, podcasts, webinars, ...
- case study database (*work in progress*)
- regional reports (*work in progress*)



Approach

- managing the whole life cycle
- reducing waste and increasing waste recovery
- high value recovery of building products in demolition
- design for disassembly and reusability during or end of their life
- material and building passports
- material banks and digital marketplaces
- circular procurement
- sharing economy applications



3 STAY WELL



7 USE CLEAN ENERGY



Circle House, Denmark

- a scalable demonstration project
- 60 housing units to be instructed by 2020
- 90 % of construction can be disassembled and reused without losing value
- involved 30 Danish companies across the whole industry



©Søren Nielsen, Vandkunst

Alliander HQ, the Netherlands

- an extension of an existing office building
- 92 % of the materials are labelled as ‘circular’
- 90 % of the materials are reused or remain on-site
- a raw material passport is made for future reuse

Brummen Town Hall, the Netherlands

- the municipality commissioned a temporary building for a service life of 20 years
- 90 % of the materials to be dismantled and reused
- material passport in 2013 turns it into a raw materials depot



©Marcel van der Burg



©Petra Appelhof

9 MAKE SMART CHOICES



13 ACT ON CLIMATE



Circular economy opportunities

- rapid urban growth for sustainable cities
- increased employment and enterprise development
- reducing construction and municipal solid waste
- organic waste recycling, urban recycling in informal settlements, waste micro-grids, ...



Kibera, Nairobi ©Pekka Huovila

based on contribution from Jeremy Gibberd, GAUGE South Africa

Ahmedabad

- extended use of C&D waste
- the products certified by GRIHA
- city policy for 75 % procurement of non structural products from waste
- 5 % incentive for C&D waste based products



Circular economy opportunities

- use of side streams from other industries
- vernacular construction techniques
- designing with locally available material
- assembly-disassembly and re-use

©Pekka Huovila



based on contribution from Development Alternatives India

Join our Network!



<http://www.oneplanetnetwork.org/sustainable-buildings-and-construction>

12 LIVE BETTER



11 LOVE WHERE YOU LIVE



17 COME TOGETHER

