SDG12 Resource efficient housing

A UN joint programme by:



Supporting the 10-year Framework of Programmes:





Programme Presentation

The Challenge

The building and construction sector is responsible for nearly 40% of the total emissions. The programme responds to the urgent need to reduce global greenhouse emissions with a focus on material resource efficiency, 11% of which resulted from manufacturing and procurement of building materials and products such as steel, cement and glass (GlobalABC, 2019)

50% of the building stock yet to be built, most of it to occur in developing countries. Out of it 70-90% of the building stock is housing.



Programme Presentation



"Multi-agency support to UNCTs in mainstreaming resource efficiency in the housing, buildings, and construction sector"

The specific objective of the programme is to equip Government and UN country teams with the necessary tools and information to:

- 1. Support governments in transforming their buildings and construction sector to be a resource efficient, low carbon and climate resilient sector, through coherent policy support and results-focused programming based on science and facts.
- 2. Raise awareness and strengthen the capacity of national stakeholders on sustainable buildings and construction related benefits and opportunities with an emphasis on material efficiency.
- 3. Develop and strengthen the productive links among construction sector stakeholders for the efficient use of resources from a circular economy perspective.



Programme Presentation

SDG12 Resource efficient housing

"Multi-agency support to UNCTs in mainstreaming resource efficiency in the housing, buildings, and construction sector"

Main SDG targets to be addressed by the Joint Programme

- 12.2. By 2030, achieve the sustainable management and efficient use of natural resources
- 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
- 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities
- 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature
- 11.1 and 11.c on adequate and sustainable housing and sustainable construction materials.



Resource efficiency and the value chain

Apply a systems analysis to the value chain to map feedback loops and interconnections and find GAPS



Figure 4: The value chain, in relation to supply chains and lifecycle. (Adapted from UNEP 2017a p.16) CATALYSING SCIENCEBASED POLICY ACTION ON SUSTAINABLE CONSUMPTION AND PRODUCTION: One Planet Network 2020



Resource efficiency and the value chain

There is little analysis and knowledge todate that combines an overarching view of the extraction and processing of the many different materials used along the construction value chain specifically.

This may also be related to the general focus on energy efficiency over material use in construction sustainability.



CATALYSING SCIENCEBASED POLICY ACTION ON SUSTAINABLE CONSUMPTION AND PRODUCTION: One Planet Network 2020



Activities within the programme



CATALYSING SCIENCEBASED POLICY ACTION ON SUSTAINABLE CONSUMPTION AND PRODUCTION: One Planet Network 2020



Countries





2.1 Stakeholder mapping: Sri Lanka





2.1 Stakeholder mapping: Sri Lanka

GOSL	Associations and Professional bodies	Academia	Civil Society
Ministry of Housing and Urban Development	Chamber of Construction Industry	Dept. Town and Country Planning, UoM	UN-Habitat
State Ministry of Rural Housing and Building Materials Promotion	Institution of Architects	Civil Engineering Dept – UoM, UoP and UoR	Green Building Council of Sri Lanka
Urban Development Authority	Institution of Town and Country Planning		Habitat for Humanity
Construction Industry Development Authority	Institution of Engineers		IFRC/SLRCS
Sustainable Energy Authority	National Association of Construction Contractors		UNDP
Geological Surveys and Mines Bureau	Sri Lanka Energy Managers Association		UNOPS
Sri Lanka Land Reclamation and Development Corporation	Association of Condominium Developers		International Water Management Institute
National Building Research Organization			Sarvodaya

GOSL	Associations and Professional bodies	Academia	Civil Society
National Water Supply and Drainage Board			
Central Environmental Authority			
Disaster Management Centre/ Climate Change Secretariat			
Town and Country Planning Department/National Physical Planning Department			
National Cleaner Production Centre Sri Lanka			
State Ministry of Provincial Councils and Local Government			
Ministry of Public Services Provincial Councils and Local Government			
State Ministry of Provincial Councils and Local Government			
State Ministry of Urban Development, Waste Disposal and Community Cleanliness			
Ministry of Energy			

Stakeholder Analysis - Scoring

Key Criteria for Selection:

- Relevance of stakeholder to subject
- Importance in Policy/ regulatory space
- High Influence, High/Medium interest









2.1 Stakeholder mapping: Burkina Faso





2.3 SHERPA – Value Assessment tool

SHERPA is a self-evaluation tool for project managers, communities, and other stakeholders involved in the planning, design, construction and assessment of housing projects.

Identify and analyze the strengths and weaknesses of new, current, and past housing projects, allowing you to achieve a more sustainable outcome.

- Its goal is for housing in the 21st century to respond to the transformative aspirations of the New Urban Agenda, the 2030 Agenda for Sustainable Development and the Paris Agreement.
- Not only "green" technologies are measured, but also human, social and cultural factors need to be considered within and beyond the boundary of a building. SHERPA scores your responses to each question according to 12 indicators which are aligned to the four Pillars of Sustainability: Social, Economic, Environmental and Cultural.
- The tools is structure as an open source and easy to access tool, to enable a pre-assessment of housing projects towards





2.3 SHERPA – Value Assessment tool



Self-assessment, easy questionary to be answered without high technical knowledge, questions have been formulated in order to make a qualitative comprehensive analysis. Easy to use for participatory processes.



Holistic analysis of the project structured in 4 levels from processes to household assessment, covering 4 pillars of sustainable development



Active analysis the Sherpa tool assesses your project globally regarding SDGs and structured in Economic, Financial, Social and Cultural feedback

Durable ho	ousing for IDPs in \equiv	← TERRITORY ≡	← PROCESSES ≡	\leftarrow Household \equiv	\leftarrow NEIGHBOURHOOD \equiv	
	Project details	Project details Next up are considerations around basic services,	Project details	Project details	Project details	
environmental cultural economic		from water, sanitation, waste, transport to sustainable energy, and the knock-on effects this infrastructure will have on the environment, livelihoods and social cohesion.	This section deals with getting the most fundamental questions right. It aims to ensure that whoever initiates a project understands the	The Household Section, as the name suggests, points to good practices at the 'household' or building level, from building design and material choice, to appliance selection and maintenance.	This section is about place-making and the extent to which connectivity, inclusion and quality of life have been considered in the neighbourhood design. Reference is made to UN-Habitat's 'New Strategy of Sustainable Neighbourhood Planning:	
social	social	1. WATER AND SANITATION	regulatory, cultural, environmental, economic and social environment the project is placed in.	choice, to appliance selection and maintenance.	Five principles	
	PROCESSES	2. SOLID WASTE		1. BUILDING DESIGN V	1. URBAN PLANNING 🗸 🗸	
	TERRITORY	3. MOBILITY AND NETWORKS	1. CONTEXT ANALYSIS	2. ARCHITECTURAL AND BUILDING TECHNIQUES	2. URBAN DESIGN 🗸 🗸	
	EIGHBOURHOOD	4. ENERGY	2. PROJECT GOVERNANCE AND MANAGEMENT	3. BUILDING ELEMENTS	3. URBAN-RURAL INTERFACE	
HOUSEHOLD		5. FOOD SECURITY AND LIVELIHOODS 6. SOCIAL AND COMMUNITY COHESION	3. PARTICIPATION AND CAPACITY BUILDING 🔷	4. APPLIANCES AND EQUIPMENTS	4. LAND TENURE	





2.3 SHERPA – Value Assessment tool

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SHERPA - Your Personal Guide to Sustainable Housing

Use SHERPA to identify and analyze the strengths and weaknesses of new, current, and past housing projects, allowing you to achieve a more sustainable outcome. Our beta version is now available for users to test for free. In addition, you can access SHERPA directly from your phone's browser at app.sherpa4housing.org or by tapping the "View in new window" link. NOTE: Password retrieval is currently not available, so note down your login details in a secure location.

Provide feedback Join SHERPA Community

About SHERPA

SHERPA is a self-evaluation tool for project managers, communities, and other stakeholders involved in the planning, design, construction and assessment of housing projects. Its goal is for housing in the 21st century to respond to the transformative aspirations of the New Urban Agenda, the 2030 Agenda for Sustainable Development and the Paris Agreement.

We view **housing as a lever for sustainable development**. To achieve this not only "green" technologies, but also human, social and cultural factors need to be considered within and beyond the boundary of a building. SHERPA scores your responses to each question according to 12 indicators which are aligned to the four Pillars of Sustainability: Social, Economic,

Start testing SHERPA

View in new window when using a mobile

Welcome to SHERPA







Questions and answers session

