10YFP Sustainable Buildings and Construction Programme (SBC)

Concept Note for comments and feedback

This document proposes the main elements of a Sustainable Buildings and Construction Programme (SBC) under the 10-Year Framework of Programmes on Sustainable Consumption and Production (10YFP on SCP). This early draft was prepared through consultation with a selected group of stakeholders including staff of various UN agencies and programmes, subject matter experts and stakeholders, and is now presented for public consultation.

The 10YFP is a global framework of action to enhance international cooperation to accelerate the shift towards SCP. The 10YFP develops, replicates and scales up SCP and resource efficiency initiatives, at national and regional levels, decoupling environmental degradation and resource use from economic growth, and thus increases the net contribution of economic activities to poverty eradication and social development.

Programmes of the 10YFP will contribute to the fulfillment of the 10YFP functions:

- Promote the added value of a sustainable consumption and production approach
- Share information and tools and to learn best practices
- Increase cooperation and networking among all stakeholders
- Foster integration of SCP into decision-making at all levels
- Raise awareness and engage civil society, with a particular focus on the education system
- Facilitate access to technical assistance, training, financing, technology and capacity building
- Strengthen and make use of scientific and technological capacities
- Promote the engagement of the private sector to achieve shift towards SCP
- Foster innovation and new ideas, while increasing recognition of traditional knowledge

For more information regarding the 10YFP and its objectives, visit: [http://www.unep.org/10YFP](http://www.unep.org/10YFP)

To learn more about existing 10YFP programmes on Sustainable Public Procurement and Consumer Information or to learn of the developing programmes on Sustainable Tourism; Sustainable Lifestyles and Education please visit: [http://www.unep.org/10YFP/Programmes](http://www.unep.org/10YFP/Programmes)

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1 As listed in A/Conf.216/5  [http://www.unep.org/rio20/portals/24180/Docs/a-conf.216-5_english.pdf](http://www.unep.org/rio20/portals/24180/Docs/a-conf.216-5_english.pdf)
The Building Sector

Planetary challenges including climate change, changing land-use, population growth, access to water and resource depletion are greatly impacted, positively and negatively, by the built environment. Buildings place significant demands on local infrastructure and utilities, with the highest rates of growth in Africa, Asia, Middle East and Latin America, raising complex social, economic and environmental challenges. The sector faces competing demands, population change (growth in some countries and flat or even population loss elsewhere). These changing demographics increase demand for households and growing urban population necessitates more dense development. This complexity also exists within a single building with demands of occupants for lighting, heating and cooling, and appliances.

Any estimates of these impacts are bound to be approximate given the lack of robust data and the fact that so much building is ‘informal’. Nonetheless, we can be sure that the impact of buildings on natural resources is great. In addition to impacts on the environment, the building and construction sector is also a strong economic driver.

Work on resource efficiency and sustainable consumption and production must keep in mind the broader inter-linkages between this sector and the natural systems and other sectors which play key roles in the overall performance of cities, regions, and national economies. Developments in the building sector can shape industry, create of new products and services. Builds have an important link to city services and can stimulate new ways of approaching the treatment of waste, water, transport and public space. Through integrated action and planning, buildings can improve the social, environmental and economic performance of a city, region and nation.

Resource Efficiency and the Building and Construction Sector

The lifecycle of buildings is very complex with a large number of actors involved at all stages of the building process. A building’s performance and resource efficiency is impacted by decisions from how a project is planned and designed, financed, constructed; used and operated; and disposed of or recycled at the end of its life. Growth in resource demand and material use in the sector far exceeded population growth in the 20th century with building commodity prices increasing an estimated 147% since 2000 and are only expected to continue to rise if measures aren’t taken to address resource scarcity.
While significant progress is being made a number of barriers remain. Overcoming these barriers will require concerted, global cooperation coupled with efficient implementation on the ground. The barriers the SBC programme aims to address, in no particular order:

- Lack of availability and management of information limits design and sustainable materials selection.
- Fragmentation among stakeholders.
- Limited economic and financial tools, such as appropriate legal contracts or finance mechanisms.
- Lack of baseline information on resource impacts
- Lack of motivation including awareness among decision makers and insufficient market demand.
- Supply chain lacks capacity and demand to sufficiently produce sustainable materials and services.
The Sustainable Buildings and Construction Programme

While acknowledging the important work accomplished so far there remains much more to be done. Many buildings cannot be regarded as sustainable for their impacts are too large and their benefits too few. There are plenty of examples of good practice but the rate of change is too slow to lead to overall market transformation. The key SCP issues for the building sector are, in no particular order:

1) **Enabling Frameworks.** SBC is more than green or energy efficient buildings. While many policies aim to reduce energy use, a key component of SCP, they should contribute more to resource efficiency. A key first step is for stakeholders to reach consensus on what is a “sustainable building” which can be achieved through broader dialogue and the development of a “common language.”

2) **Adopting a lifecycle approach and resource efficiency in building supply chains.** The challenge is to make lifecycle analysis more efficient and effective with simple rules and guidance which will allow for broader uptake which will shape the planning and design of buildings by enabling the supply chain to improve its performance.

3) **SBC depends on sustainable infrastructure.** Buildings should respond to available infrastructure and local environmental conditions and strive to drive demand and enable the provision of more sustainable infrastructure and urban services.

4) **SBC should strive to be “Resource Positive.”** Buildings should strive to provide more clean energy than they consume, produce more clean water than they use, and transform more waste than they produce.

5) **SBC should have a “Circular Economy” approach.** The transition towards more sustainable buildings and construction will necessitate changes from the way building projects are contracted and financed to how organisations budget and governments incentivize the right kinds of actions at the right times throughout the life of the building.

6) **SBC should begin at home.** By 2050 more than a billion new homes will be needed to meet a growing and increasingly urban population. A strong focus on housing will allow greater positive impact and greater increase in the sustainability of our lifestyles.

7) **SBC requires the engaged and knowledgeable participation of all stakeholders.** A building’s performance depends on its proper operation and building users are the most critical component for ensuring its success.

8) **SBC necessitates a climate responsive approach.** Buildings last longer than many other products and the world around will undergo great change during their lifetime. They should be designed to be resilient, to cope with regionally anticipated climate change, and reduce their climate impact.
9) Monitoring, verifying and provide feedback are critical for success. The performance, sustainability and resource efficiency of buildings needs to be verified through monitoring and feedback throughout their lifecycle to ensure near and long-term goals are accomplished.

10) There is a key role for government at all levels to “lead by example.” Public buildings should be exemplars of sustainable building and catalytic agents for the development of resource efficient supply chains, technologies, skills and expertise.

Proposed SBC programme

Aim

The overall aim of the programme is to achieve a situation, by 2030, where:

“All stakeholders involved in the planning, commissioning, design, construction and deconstruction, management and operation of buildings have a common understanding of sustainable buildings and the knowledge, resources and incentives required to create, maintain and use them; structures that are healthy to live and work in, that sustainably utilise energy, water, land and other key resources, respecting environmental limits, and ultimately have a minimally adverse impact on the natural world.”

Recognising the large amount of work needed to address the ten focal areas, the SBC programme will initially focus on the following four key work areas with the broader intent on developing work areas for all focal areas.

Work Streams

Work Stream 1: Establish and promote enabling frameworks to implement SBC policies

Aims:

- Maintain and engage in global dialogue to develop and promote common language and tools.
- Map systems, initiatives and frameworks supporting different aspects of SBC.
- Identify and promote enabling frameworks to implement sustainable building policies and within the context of the other SCP programmes
- Develop tools and promote monitoring throughout the whole lifecycle of buildings and infrastructure to track and assess progress towards sustainability (e.g. design criteria, product certification, and verification and reporting methodologies).

Delivery Global Level: Global platform and dialogues to develop and promote common language and tools relate to sustainable buildings.

Delivery Regional Level: Regional workshops and capacity building; Regional ‘State of Play’ reports; outreach and policy support through regional centres of excellence.
Work Stream 1: Support and Promote Sustainable Buildings

Aims:

- Delivery National Level: Support for national policies on sustainable buildings; workshops and training for public and private stakeholders.
- Delivery Sub-National and Local Level: Workshops, knowledge sharing activities, dissemination of informational materials.

Work Stream 2: Support and Promote Sustainable Social Housing

Aims:

- Establish practical demonstration projects of SBC in retrofit and new build for low income groups in target regions with demonstration projects becoming regional ‘Living Labs’ through the incorporation of monitoring, training and dissemination.
- Work to promote the upscale and broader adoption of SBC policies throughout the low-income housing sector.
- Cooperation with 10YFP Sustainable Public Procurement Program.

Work Stream 3: Promote Resource Efficiency in Building Supply Chain

Aims:

- Ensure upstream stakeholders and supply chains are engaged and work towards resource efficiency.
- Identify hotspots of environmental impact and areas not being tackled sufficiently and promote responsible management and/or alternatives.
- Identify and promote government policies and toolkits to aid resource efficiency in SBC.
- Promote lifecycle assessment tools for carbon, water and materials (including waste).

Delivery Global Level: Common framework approach to sustainable housing solutions; global social housing toolkits.

Delivery Regional Level: Regional knowledge sharing workshops; demonstration projects with country partners; support network; guidelines.

Delivery National Level: Workshops, training, pilot projects with national governments, financial institutions.

Sub-national and local level: Workshops, training and pilot projects.

Delivery Global Level: Develop tools, policies and indicators for increased resource efficiency in building materials and product supply, including for SMEs.

Delivery Regional Level: Methodologies for reducing consumption in the building supply chain; tools to support increased resource efficiency among actors.

Delivery National Level: Training and workshops; national tools and methodologies to policies.

Delivery Sub-national and local level: training and workshops, dissemination of tools and knowledge sharing activities.
Work Stream 4: Reduce climate impact of building sector

Aims:

- Develop and promote understanding of sustainable buildings and construction across the stakeholders and general public,
- Develop and facilitate use of globally harmonized tools and methodologies for measuring and reporting building sector emissions
- Provide a clear framework of how the above-mentioned harmonized tools and methodologies could contribute to better city, regional, and national planning.
- Ensure planning and design enables buildings are appropriate for local climate conditions and anticipated climate change.

Delivery Global Level: Develop and facilitate use of globally harmonized tools and methodologies for measuring and reporting building sector emissions

Delivery Regional Level: Regional networks and databases to support mitigation actions; regional workshops and trainings

Delivery National Level: Training and workshops; national baseline emission reports; support to national mitigation efforts

Delivery Sub-National and Local level: Workshops, knowledge sharing activities and pilot activities

Work Stream 5 Cross-cutting theme: Knowledge sharing, outreach and awareness raising

Delivery Global Level: global best practice networks and reports; build business case for SBC

Delivery Regional Level: Establishment of regions support networks; data and information sharing; peer to peer reviews; project results sharing

Delivery National Level: National stakeholder workshops; joint studies and reports; financial and consumer information initiatives

Delivery Sub-National and Local level: Workshops, knowledge sharing activities

Programme structure

In keeping with the Rio +20 mandate for the 10 YFP the SBC programme governance structure will consist of a Programme Lead and Co-Leads, a Multi-stakeholder Advisory Council, Coordination Desk, Work Stream Coordinators and Partners. It will be structured as illustrated by figure 1.
For more information on the governance structure of the 10YFP programmes, especially the role of Lead, co-lead, members of the Multi-Advisory Committee (MAC), and partners, please refer to the Guidance document on Programme development at: