PAQS Congress 2023

Country Report

Sustainability in Sri Lankan Construction Industry

Ancient Sri Lanka has achieved significant progress in engineering and technology in harmony with the environment. Nevertheless, Sri Lanka missed to adopt these responsive measures in building construction due to the implication of industrial revolution and different colonial governance. After the global discussion on sustainable development in 1987 based on Brundtland Commission Report, Sri Lanka also was trying to be conscious about the "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

Green Building Assessment Systems adopted

The concern for environment and sustainable development is being increased in Sri Lanka. From this dimension, there has been a rapid development in the number of environmental or green building assessment methods, tools, and certificates. First, Leadership in Energy and Environmental Design (LEED) developed by the United States Green Building Council (USGBC) is adopted in the Sri Lankan construction industry. Other than LEED Certification system, there are two notable Sri Lankan Green Building certification schemes. Once the Green Building Council of Sri Lanka (GBCSL) was established, it has introduced Green SL rating system including eight categories (Management, Sustainable Sites, Water Efficiency, Energy and Atmosphere, Material and Resources, Indoor Environmental Quality, Innovation and Design Process, Social and Cultural Awareness) to evaluate the green aspects that have to be followed by new buildings and existing buildings in order to go green. Further, Urban Development Authority has introduced UDA Green Building Certification scheme considering the seven key aspects (Energy Efficiency, Sustainable Management, Material and Resources, Indoor Environmental Quality, Water Efficiency, Innovation and Social and Cultural awareness). LEED and Green SL are the most prominent green building assessment systems adopted in Sri Lanka.

Statutory requirements on the following elements of green buildings

The laws governing environmental preservation in Sri Lanka are prominently based on legislative enactment. Sri Lanka parliament enacted National Environment Act No.47 of 1980 to the establishment of the Central Environmental Authority in 1981 as the state agency responsible for the formulation and implementation of the policies for the environmental conservation. Other than that, the Government of Sri Lanka recognises that improving the energy performance of buildings is an important part of the strategy in the sustainable energy development process in the country.

Sri Lanka Sustainable Energy Authority (SEA) is empowered by Act No. 35 of 2007 to introduce a Code of practice for buildings on efficient energy utilisation, through its Section 36 (2) (f). Based on that, SEA published the Energy Efficient Building Code to be adopted in designing of new facilities or retrofits of commercial buildings, industrial facilities and large scale housing developments and their equipment and systems.

National level physical planning, urban planning and Strategic planning for the Construction Sector are considered for sustainable urban planning. Sri Lanka prepares a National Level Physical Development Plan at regular intervals and the legal framework for national planning is provided by the Town & Country Planning Ordinance (Amended Act - 2000). The first National Physical Planning Policy and the Physical plan was enacted in 2011 and the National Physical Plan 2050, was enacted in 2019. Sri Lanka's National Physical Plan till 2050 published in 2019 outlines infrastructure and housing improvements that possess sustainability elements, which could form a part of a green recovery strategy for Sri Lanka.

Government incentives for providing new green building and existing green building

Sri Lanka has mature policy regimes for the governance of construction, energy and environment, key governing bodies and legislations which have been in operation for more than 40 years. The Ministry of Urban Development and Housing have published the Sustainable Building Construction Country Assessment for Sri Lanka (SBC-CA) and a Roadmap for Sustainable Housing and Construction and achieving national determined contributions in the Sri Lankan construction industry 2020 - 2050. The Sri Lankan Government provides several incentives to encourage green buildings in Sri Lanka. From April 1st, 2021, resident individuals can avail a tax deduction of up to Rs. 600,000 per year of assessment on the cost of their solar investments, provided that the investments are in On-grid solutions. Furthermore, any loans obtained for the installation of such solutions can also be eligible for the same deduction as mentioned above. In October 2020, the Sri Lankan government announced a policy decision to favor local contractors for construction and for sourcing of materials. With the 2021 budget, the government unveiled slew of tax concessions for housing and construction including for housing loans, REITs, and notably 10 year tax holiday for investments in recycling and reuse of construction material, which is an important measure with respect to sustainability of the construction industry.

Other than those, there is discussion to establish a sustainable finance taxonomy for the built environment in Sri Lanka. The Central bank of Sri Lanka is involved in introducing new financial products, such as Green Construction Loans, Green Bonds, Green REITs and Green Mortgages that could support investors, building developers and home buyers to adopt green building options.

Quantity Surveyor's involvement in Green Buildings

Quantity Surveyors are one of the key professionals in the construction industry which plays a significant role while implementing sustainable construction strategies in Sri Lanka. Quantity surveyors involvement is crucial from the initial stage of a construction project while achieving sustainable development goals. Quantity surveyors involvement in Green projects are conducting feasibility studies for green projects, cost estimating and cost planning, preparation of BOQs, Project life cycle costing, carbon footprint assessment, advising on green certification systems and property performance reporting.

As the sole professional body representing the Quantity Surveying professionals in Sri Lanka, Institute of Quantity Surveyors Sri Lanka (IQSSL) provide immeasurable contribution towards the sustainability in construction industry. Their contribution has expanded towards conducting continuous professional development sessions (CPD) and round table discussions, direct professionals to obtain training sessions organised by Green Building Council Sri Lanka (GBCSL) and Promote/undertake research on sustainability.

Updated developments of green buildings

Green Buildings in Sri Lanka have been evolving implications which have developed relevant laws, regulations and policies relevant to Green Buildings and keeps updating them based on development. Green Building Rating Systems are developed and applied by the Sri Lankan Construction industry as a guideline to achieve sustainable building construction goals. Accordingly, the Urban Development Authority has made Green Building certification mandatory for buildings larger than 400 sq.m under the Urban Development regulations 2020. There are 60 + LEEDS certified buildings and 58+ GREENSL® Certified buildings in Sri Lanka. Kandalama Heritance - first LEED certified project outside of the United States (LEEDS Certified in 2000), MAS Intimates Thurulie -the world's first purpose-built green factory for apparel manufacturing

(LEEDS Certified in 2010), Ulagalla Walawwa Resort- first Silver LEED certified leisure project outside of the United States (LEEDS Certified in 2010) and Clear Point Resident - highest (Platinum) rated green building in Sri Lanka (GBCSL Certified in 2018) are some of Highlighted green buildings in Sri Lanka.

Green Building Council Sri Lanka (GBCSL) has established the Green rating system version 2.1 for new construction projects and version 1.0 for Existing buildings. Moreover, GREENSL® rating system version 1.0 for sustainable cities has been developed as an effort to make the existing and emerging cities in Sri Lanka to be more sustainable by activating and encouraging stakeholders at local government level to participate in a process that will improve their living conditions.

The construction industry is the largest consumer of the natural resources in Sri Lanka. Current planning and building regulations formulated by the Urban Development Authority consider sustainability aspects: the land suitability, energy and water conservation, thermal comfort, sustainable usage of materials and cultural sensitivity when approving a building. Green Building Council of Sri Lanka has a Green Labelling system GREENSL® for selected types of building materials, considering all stages of material life cycle in the assessment criteria. There are 45 + green products certified by Green Building Council Sri Lanka.

Useful links relating to green buildings

1. Ministry of Environment Sri Lanka: https://env.gov.lk/web/index.php/en/
2. Ministry of Urban Development and Housing: https://houseconmin.gov.lk/
3. Central Environmental Authority: https://www.cea.lk/web/si
4. Condominium Management Authority: https://www.condominium.lk/
5. Construction Industry Development Authority: https://www.cida.gov.lk/index_e.php
6. Urban Development Authority: https://www.uda.gov.lk/urban-regeneration-programme.html
7. Sri Lanka Sustainable Development Authority: https://www.energy.gov.lk/index.php/en/
8. Green Building Council Sri Lanka: https://www.srilankagbc.org/
9. Sri Lanka Climatic Fund: https://www.climatefund.lk/slcf_index.html
10. Convention on Biological Diversity: https://www.cbd.int/countries/?country=lk

11. List of LEEDS Certified Sri Lankan Buildings: https://www.usgbc.org/projects?Country=%5B%22Sri+Lanka%22%5D&CertStartDate=%222000-01-01%22&CertEndDate=%222023-09-30%22