



Guidelines and Certification for Green Buildings in Cambodia (2nd MKCF)

By Sokhai NOP, Ministry of Environment, Cambodia
and Project Coordinator

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1. Project background

- The construction sector plays significant role in satisfying basic social and physical needs of people in terms of providing buildings for accommodation and business or services.
- There is a significant construction boom and high urbanization level in Cambodia, resulting in high demand for new commercial and residential buildings, especially in the capital city.
- Construction is one of the main economic sectors in Cambodia and just it alone contributes 11.5% to the economy in 2018, with thousands of buildings having been built in main cities.
- Construction and building is the largest energy consumption sector, accounting for 52% of the total consumption in 2017. In the same year, residential and commercial buildings consumed 77% of the final electricity. By 2040 the energy consumption will be more than double.



1. Project background (Cont.)

- To promote sustainable/green buildings in Cambodia, MoE and NCSD NCSD) launched a green building project, called “Guidelines and Certification Standards for Green Buildings in Cambodia” in early 2019 with financial support from Mekong-Republic of Korea Cooperation Fund (MKCF) and financial coordination by Mekong Institute (MI).
- The project aims to develop guidelines and certification standards for constructing green buildings (residential and commercial) in Cambodia.
- The implementation of Green Building Design will result in reduced energy consumption, reduced water consumption, more efficient use of natural resources, and an improved living environment for residents of Cambodia.
- The target beneficiaries of the project will be the small to medium enterprises (SMEs) working on improvements to the design of buildings.
- It will support the creation of green jobs, helping to alleviate poverty by supporting the creation of a local building material industry with low embodied energy consumption and with energy efficiency applications in building design.



2. Project approaches and outputs

1. Formulate certification scheme and operations system

- Review the existing building code and construction standards
- Research evaluate option and design green building standard for office and residential building
- Establish the certification operation system (training and operational)
- Multi-stakeholder engagement incl. including private sector (architects, constructors) and municipal Authorities, NGOs

2. Establish institutional arrangements for certification

- How certification can be implemented (Establishment of an operation body for Green Building Certification)
- Update laws/regulations regarding the Building Code or to include the green building standard and certification process
- Green building training and awareness raising workshop on green building design standard and certification process

3. Piloting certification process

- Selecting and piloting one residential building and one office building (gov't) and document lessons learned
- Result from piloting used to tailor and update certification scheme
- Sharing experiences with Mekong countries & the ROK in Cambodia: sharing experience and knowledge from Cambodia green building design

4. Improve awareness of industry, gov't and households

- Hold awareness raising workshop with industry associations (e.g. Architects and construction sector associations)

5. Improve knowledge sharing and networking

- Study tour to the Republic of Korea to exchange knowledge and learn from the ROK's green building standards and certification process
- Establishment of a peer-to-peer learning network between the Cambodian and KICT
- Organizes a regional knowledge sharing workshop

3. Challenges



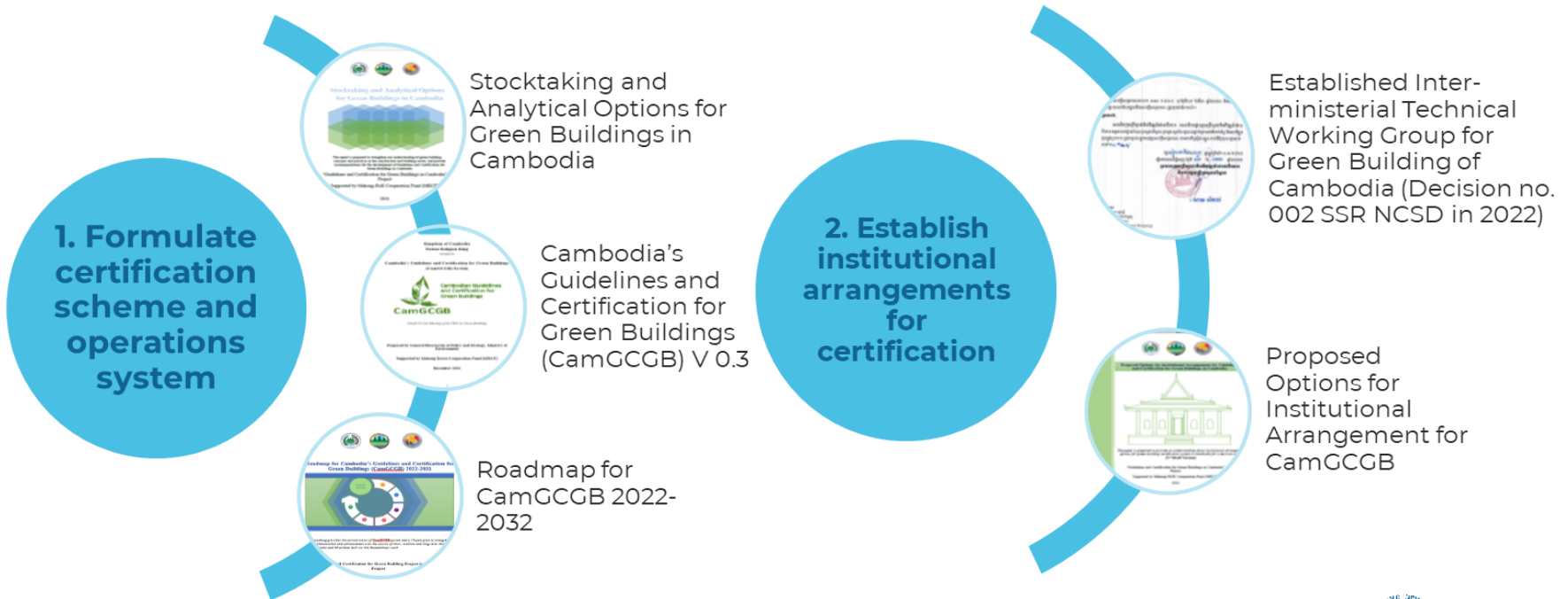
- Recruiting international consultant took much time and happened at the start of COVID-19 outbreak
- Some activities have been delayed although the 6-month project extension was made.
- The activities under the partnership with KICT (Korean partner) have been delayed and re-engagement is taking now as both countries open economy (no travel barriers).
- Need a strong political level coordination to move the green building work or implement the guidelines as there are a few other relevant ministries/agencies that have role in building sector such as Ministry of Land Management, Urban Planning and Construction, Board of Architects and Board of Engineers
- Institutional arrangement to undertake the management and operation of Cambodia's guidelines and certification for green buildings needs time consuming
- Technical Working Group on green buildings needs further capacity building effort in dealing green building technical work and leverage the guidelines implementation
- Remaining activities/tasks plus additional work shall be completed to realize the green building system practice



4. Project progress to date

- Established TWG on Cambodia Green Building with 25 members from 12 relevant ministries/agencies
- Signed MoU and Contract with Korea Institute of Civil Engineering and Building Technology (KICT) in November 2019 for technical support in developing guidelines and certification for green buildings, operational body and piloting
- Signed MoU with German Sustainable Building Council (DGNB) on the development of guidelines and sustainable building certification system based on the DGNB international certification system with a prospect of the further development and system partnership
- Selecting and piloting one residential building and one office building (gov't) and document lessons learned

4. Project progress to date





3. Piloting certification process



Selection of Buildings



Piloting CamGCCB for:
1. New building- Residential
2. Building in use- Office (gov't)

5. Improve knowledge sharing and networking



Partnership with KICT and DGNB built

4. Improve awareness of industry, gov't and households



Introductory Module on Green Building Conceptions



Training Module on CamGCCB



47 participants in awareness raising workshop on green building conception
30 participants joined training on CamGCCB



5. Next Plan

- Conduct piloting of CamGCGB for residential and office buildings
- Update the CamGCGB based on the result from piloting
- Organise political coordination meeting on CamGCGB
- Sharing experiences with Mekong countries & the ROK in Cambodia: sharing experience and knowledge from Cambodia green building design
- Continue organising awareness raising workshop with industry associations
- Study tour to the Republic of Korea to exchange knowledge and learn from the ROK's green building standards and certification process
- Organizes a regional knowledge sharing workshop

Thank you