

2023

Inception Meeting Report

**ESTABLISHMENT OF THE PAKISTAN GREEN BUILDING
CERTIFICATION SYSTEM THROUGH THE FORMATION AND
OPERATION OF THE RELEVANT STAKEHOLDERS
CONSULTATIVE BODY**

GREEN GROWTH CONSULTANTS (PVT) LTD.



UNEP
United Nations
Environment Programme



Introduction:

Pakistan's building sector offers great potential for transitioning to an energy efficient sector however, compliance with the Green Building codes has remained a challenge in Pakistan. Due to a lack of adoption of green building standards and regulations, the rapid urbanization across Pakistan has seen an infrastructural development that is not environmentally sustainable and responsible. In the support of spearheading the green buildings infrastructure implementation and conversion to net zero buildings, it is important to note that the major impediments for the country primarily include the lack of clear and mandatory guidelines, inadequate financial and institutional resources, lack of awareness, as well as lack of knowledge and availability of technology options.

A major initiative is required to be taken towards implementing green building standards with a clear methodology, monitoring verification, and enhancement (MV&E), and financing. In this regard, the technical assistance (TA) from CTCN aims at introducing green building standards in Pakistan. This includes a baseline assessment of current infrastructure (including commercial, office, and residential buildings), as well as the development of standards for new green building infrastructure and the conversion of existing infrastructure to net zero buildings. The suggested measures will help in devising policies and economic measures to promote the construction of green and environment-friendly buildings. At length, green building standards will lead to a drastic reduction in demand for energy and considerable monetary savings, including for the common people.

To meet the objectives of the TA, the establishment of a technical working group TWG with relevant stakeholders has been formulated to provide a technical overview and high-level guidance at every stage of the technical assistance. The inception meeting of the TWG was organized on September 14th, 2023 in Islamabad, Pakistan.

The sections below cover the details of the meeting.

Meeting Agenda:

The overall agenda of the meeting was designed in a way to ensure proper communication between the technical working group and the green building team to get their feedback and suggestions on this project. The meeting agenda is as follows:

(Pakistan Standard Time)	
14:30 – 14:40	Opening and Welcome
14:40 – 15:05	Scene-setting presentation on project workplan
15:05 – 15:30	Q&A on project
15:30 – 15:45	Presentation on the role of Working group and regular working group meetings
15:45 – 16:20	Feedback round to establish a consensus on the regular working group meetings
16:20 – 16:30	Summary and wrap-up

Participants/Stakeholders:

A diverse group of stakeholders had been carefully selected to formulate the TWG and participate in the meeting, each serving a specific purpose. Governmental institutions at the national and sub-national levels were chosen to provide regulatory insights and policy support for green building standards. Representatives from the building and construction industry were selected to bring practical knowledge and on-the-ground experience in construction practices. The energy efficiency and renewable energy sector contributed expertise in energy-saving technologies and renewable energy integration. Private sector participants offered their financial resources and market perspectives to drive green building adoption. Development sector and Civil society representatives ensure community engagement and advocacy for sustainable building practices. Academic institutions provide research capabilities and expertise in sustainable construction methodologies, and beneficiaries ensure the project aligns with the needs and aspirations of those who will ultimately benefit from green building initiatives. This diverse group will collectively contribute to the success of the project.

The list of the participants/stakeholders is attached as ([ANNEX-1](#)).

Main Discussion:

Dr. Irfan Yousaf, team lead and energy efficiency and technology expert from GGC, introduced the project of the establishment of a green building certification system and workplan for the project. The technical working group was selected to guide them about the project and get their endorsement with valuable feedback. The technical working group in the Q&A raised several concerns and gave valuable suggestions and the response from Dr. Irfan was as follows:

A representative from EPA KPK inquired if a building becomes green only with the inclusion of solar panels or planting some trees. Dr. Yousaf explained that it is just a component of green building. He also explained all other important factors such as structure, architecture, layout, and energy efficiency which make a building green. Further, the different certification systems such as BREAMS, LEED, and Green Star were explained including their criteria for identifying if a building is green or not.

A representative from Cherat Cement asked about the sustainable construction materials that will be used, to which Dr. Yousaf explained the concept of green cement, which has reduced CO₂ Emissions, and mentioned the chemical processes' reduction in its production.

A representative from Fauji Cement suggested that Magnesium carbonate should be used instead of calcium carbon aggregates as it absorbs CO₂ from the environment. He also suggested that Pakistan should move towards low-grade cement, which will be very beneficial in this regard. Dr. Yousaf endorsed the suggestion and mentioned that this suggestion will also be discussed further in the analysis and upcoming meetings with the technical working group.

A representative from AJK Climate Change Department inquired about the inclusion of green building bylaws in Pakistan and asked about the availability of information and international examples of green buildings. Dr. Irfan Yousaf mentioned that the Pakistan Engineering Council has already made the

green building code, and the National Energy Efficiency and Conservation Authority has also developed an energy efficiency code. Taking the lead from that, we are working on the establishment of a certification system. He added that there is research going on and international best practices are also part of that research.

A representative from EPA Punjab suggested that the certification system should be kept as simple as possible while keeping in mind the awareness among the people in Pakistan about this concept. Dr. Irfan Yousaf mentioned that his suggestion was very important and the certification system will be kept as adaptable and simple as possible to facilitate the Community. In addition, another representative from the Planning Department of the Government of Punjab suggested that as most of the population of Pakistan lives in rural areas but these initiatives are mostly supported and accepted by the urban population, more actions should be taken to incentivize the people to make their buildings green not only in terms of money only but in terms of support maybe to their children's education and other ways which can be discussed further. He also used the example of Melbourne, Australia which pays half the money for the installation of grey water tanks as it contributes to reduced urban flooding. Dr. Irfan Yousaf endorsed the suggestion.

A representative from Maple Leaf suggested that a system for certifying already built infrastructure should also be looked upon because large urban buildings are the major cause of Urban heating. Dr. Yousaf responded that there is a mechanism of retrofitting for the already-built infrastructure. Large urban buildings can be retrofitted and fall under the category of green buildings and attain their certificate as well.

A representative from the Pakistan Bureau of Statistics suggested that the building process starts with the layout/map approval, some measures should be taken to make terms and conditions for the layout approval which will lead to a green building. Dr. Irfan mentioned that the team has met with all the relevant authorities for the inclusion of green building and energy codes to be included in the bylaws but these things take time. The meetings with authorities will ensure that major construction in the future is green buildings.

A representative from the National Disaster Management Authority inquired about the cost of green buildings if it is higher or lower than conventional buildings and if it is higher, how will the people of Pakistan, who already are suffering from poverty handle this? Dr. Yousaf replied that the cost of a green building is higher than a conventional building but the extra cost is paid back in 3-4 years and long-term socio-economic benefits can be leveraged by the overall energy savings, health benefits, and water conservation of the individuals residing within those buildings.

A representative from UNDP asked about the technologies that will be used in a green building. He suggested that the houses in Pakistan in the 1950s were made of mud and were very energy efficient and we should use their concept in a modern way for construction these days. Dr. Yousaf said that all the materials and technologies have been mentioned in the green building code by the Pakistan Engineering Council and the suggestion is very important and will be included in the research.

A representative from Khyber Pakhtunkhwa Economic Zones Development and Management Company asked how will EIA be incorporated in the construction phase of green buildings. Dr. Irfan Yousaf answered that this will be discussed with the relevant organizations such as EPA to develop consensus on its incorporation against the suggestion made by the technical team once the standards are designed.

A representative from Pakistan Agriculture Research Center asked if the green buildings will be allowed for construction on agricultural lands, are there any bylaws for that? Dr. Irfan Yousaf mentioned that it is not part of the bylaws yet but it can be part of the land utilization policy on a provincial level.

Conclusion:

The meeting was very productive where stakeholders had very good suggestions that should be considered. The team was also able to gauge the positive interest of all stakeholders in the certification system and all the participants agreed with the idea and showed their commitment to work as a member of the technical working group for the delivery of project objectives.

(ANNEX-1)

S. No	Names	Designation/Department
Public Sector		
1	Dr. Ambreen Nadeem Khan	Deputy Director General, Ministry of National Health Services Regulation & Coordination
2	Dr. Nadia Waqas	Consultant HPSIV, Ministry of National Health Services Regulation & Coordination
3	Attiq-ur-Rehman	Deputy Director General, Pakistan Bureau of Statistics
4	Dr. Khalid Farooq	Chief Statistical Officer, Pakistan Bureau of Statistics
5	Hafsa Anwar	Statistical Officer, Pakistan Bureau of Statistics
6	Engr. Asif	Senior Engineer, Pakistan Agricultural Research Council
7	Dr. Arshad Ashraf	Principal Scientist, Pakistan Agricultural Research Centre
8	Shahzad Hussain Dahri	Scientific Officer, National Agriculture Research Centre
9	Amar Najeeb	Assistant Director, National Disaster Management Authority
10	Akhlaque Ahmed Qureshi	Director General (CC&CD) & NDC Focal Person (Sindh), Directorate of Climate Change & Sindh Coastal Development Authority
11	Azmat Naz	Deputy Director (TT) Environmental Protection Agency Punjab
12	Mariam Tariq	NDC Focal Person Punjab, Planning and Development Department, Government of Punjab
13	Dr. Sardar Muhammad Rafique	Deputy Director (Climate Change), Environmental Protection Agency AJK
14	Mirza Karim	Deputy Director (Climate Climate), Environmental Protection Agency AJK
15	M Irshad	Chief Analyst, Environmental Protection Agency Khyber Pakhtunkhwa
16	Uzair Naqvi	Environmental Geologist, AJK Power Development Organization
17	M Adil Khan	Planning Officer, Khyber Pakhtunkhwa Economic Zones Development and Management Company
18	Abdul Wali	Deputy Director, EPA Balochistan
19	Dr. Abdul Haq	Local Government Balochistan

Development Sector/ Financial Institutions		
20	Aliza Farooq	Programme Assistant UNDP
21	Sarah Khalid	Consultant UNDP
22	Zaigham Mehmood Rizvi	Expert Consultant at UNESCAP, UN-HABITAT, ShoreBank Intl, CMHC of Canada
Private Sector		
23	Ammara Naqvi	Manager, SGS
24	Samiullah	Manager Environment DM HSE, Fauji Cement Company Limited
25	Muhammad Afrasiyab	MRV Expert, CHEF International
26	Fizza Hassan Zaheer	Analyst, Delivery Associate
27	M Irfan Taher	Deputy General Manager, Maple Leaf Factory
28	Saeed Ahmed Khan	Manager HSE, Fauji Cement Company Limited
29	Muhammad Saleem	Sr. Assistant Manager, Quality Assurance, Atlas Battery Limited
30	Haroon-ur-Rashid	Assistant General Manager Production, Cherat Cement Company
31	Ali Hasan Syed	Senior Deputy Manager (Env) Pioneer Cement Ltd
32	Ehtisham Malik	Secretary, Association of Builders and Developers
Research & Academia		
33	Zeeshan Ashfaq	CEO Renewable First
34	Hammad Ali	Project Coordinator Renewable First

ANNEX-2

