CTCN
CLIMATE TECHNOLOGY CENTRE & NETWORK

Technical Assistance Response Plan – Terms of Reference

Country	**Zimbabwe**
Request ID#	**2022000002**
Title	Development of Green Building Standards for Zimbabwe
NDE	Climate Change Management Department, Ministry of Environment, Climate, Tourism and Hospitality Industry Ms Munashe Mukonoweshuro NDE Focal Point munamuko@gmail.com 11th Floor, Kaguvi Building Cnr S.V Muzenda, Harare
Proponent	Ministry of National Housing and Social Amenities Eng J.P. Makumbe Permanent Secretary joymakumbe@gmail.com 3rd Floor, Zimre Centre Harare, Zimbabwe Ministry of Local Government and Public Works Ms Michelle Olive Ruvimbo Dimairho Architect in Department of Public Works olivedimair@gmail.com Green Building Council of Zimbabwe (GBCZw) Mr Kudzi Chitiva Council Member: Technical Services kachitiva@gmail.com 6th Floor, Green Bridge South Eastgate Centre, Harare, Zimbabwe

Summary of the CTCN technical assistance

The energy sector is currently the second biggest contributor to total GHG emissions in Zimbabwe, accounting for 33% of emissions in 2017. The built environment, including residential, office and commercial buildings are important sources of GHG emissions under this sector. Due to a lack of mandatory building standards in peri urban and rural areas, the increase in urban sprawl has seen the development of infrastructure which is not environmentally responsible and sustainable across the nation.

Zimbabwe is constrained by an inability to fully implement sustainable building practices, adopt environmentally friendly technologies and put appropriate measures in place to respond to climate change requirements. This is largely attributed to a lack of institutional and financial resources. Zimbabwe needs to develop sustainable building practices, there is a need to improve the environmental and economic performance of new and existing commercial, office, and residential buildings.

This technical assistance seeks to help Zimbabwe in the development of effective green building

standards, policy guidelines and MV&E frameworks in order to introduce sustainable building practices nationwide.

Agreement:

(If possible, please use electronic signatures in Microsoft Word file format)

National Designated Entity to the UNFCCC Technology Mechanism
Name: Munashe Mukonoweshuro
Title: CTCN NDE for Zimbabwe
Date: 04/05/2022
Signature: 

Proponent 1 (signature of the Proponent is optional)
Name:
Title:
Date:
Signature:

Proponent 2 (signature of the Proponent is optional)
Name:
Title:
Date:
Signature:

Proponent 3 (signature of the Proponent is optional)
Name:
Title:
Date:
Signature:

UNFCCC Climate Technology Centre and Network (CTCN)

Name: Rose Mwebaza
Title: CTCN Director
Date:26/04/2022
Signature: 

1. Background and context

The energy sector is currently the second biggest contributor to total GHG emissions in Zimbabwe, accounting for 33% of emissions in 2017. The built environment, including residential, office and commercial buildings are important sources of GHG emissions under this sector. As such, Zimbabwe's Low Emission Development Strategy (LEDS) 2020-2050 indicated that electricity and heat generation for the built environment contributed 47% of energy sector GHG emissions in 2015.

Due to a lack of mandatory building standards in peri urban and rural areas, the increase in urban sprawl has seen the development of infrastructure which is not environmentally responsible and sustainable across the nation. Mitigation measures highlighted for the energy sector are the introduction of Energy Efficient programmes, adoption of solar PV micro-grids and development of Minimum Energy Performance Standards (MEPS).

Zimbabwe – like much of Africa – is constrained by an inability to fully implement sustainable building practices, adopt environmentally friendly technologies and put appropriate measures in place to respond to climate change requirements. This is largely attributed to a lack of institutional and financial resources. The concern of environment and sustainable development within the built environment has increased recently in Zimbabwe. Therefore, the country established different institutions that concern sustainable issues that include environmental, social, and economical besides non-governmental organizations.

There is now, to a greater extent, a desire to develop policies, tools and regulations as an approach ensuring sustainable development within the built environment through waste reduction, use of green energy and other efficient methodologies for the provision of infrastructure. Zimbabwe, in its efforts to fight the impacts of climate change developed a National Climate Policy (2017) and National Climate Change Response Strategy (2014) amongst other key documents. Despite Zimbabwe's efforts however, green building initiatives for the general population have largely remained voluntary. Depending on the size and type of structure being built however, Environmental Impact Assessments (EIA's) may be required in terms of the Environmental Management Act (Chapter 20:27).

Accordingly, there is an urgent need to look at domestic systems and modify them through establishing new building systems and practices based on green thinking and applications. As a result, Zimbabwe needs to develop sustainable practices. There is a need to improve the environmental and economic performance of new and existing commercial, office, and residential buildings. In order to scale green building practices in Zimbabwe, effective green building standards, policy guidelines and MV&E frameworks need to be established.

2. Problem statement

The introduction of green building standards in Zimbabwe is constrained by a multitude of barriers, mainly related to a lack of institutional and financial resources which are elaborated in further details below:

- **Regulatory challenges:** So far, there are no quantitative targets and a legislative force within the building and construction sector, which results in no motivation and incentives to the nation's stakeholders for the design and implementation of sustainable energy efficient buildings. A strengthened role from the government is required through putting in place instruments that promote and incentivize green buildings and sustainable materials. Furthermore, outdated building by-laws on make the adoption of sustainable building standards voluntary instead of mandatory to this date.
- **Institutional barriers:** The buildings and construction sector involves a set of ministries and entities with limited coordination between them resulting in a lack of harmonized policies and regulatory frameworks.
- **Lack of capacity and awareness:** Governmental agencies have limited capacity of experts and specialists to develop sustainable building codes. This also includes the proper documentation of building performance data (national building database) to enable developers to benchmark building sustainability measures. Furthermore, the low awareness on the benefits of green buildings on wellbeing, environment, and economy limits the prioritization of energy efficiency measures in construction and buildings. Effective dissemination of information, diffusion networks on sustainable construction and materials geared towards occupants / communities' wellbeing will be needed.
- **Financial challenges:** The perception by stakeholders of a high capital cost and slow return on investment resulting from a lack of knowledge, limits investment into energy efficient equipment and technologies. Lack of financial instruments such as subsidies, tax rebates or a dedicated revolving fund are major barriers to enforcing energy efficiency standards in buildings.
- **Technology limitations:** There is a lack of development and availability of sustainable building materials locally that are energy saving, emissions reducing, safe, convenient and recyclable.

This present technical assistance seeks to help Zimbabwe overcome these challenges and develop green building standards with enhanced energy performance standards in terms of cooling, lighting, heating, and insulation.

3. Logical Framework for the CTCN Technical Assistance:

(Guidance: Please note that multiple activities lead to one Output, and multiple Outputs lead to one Outcome. There can be several Outputs, but only one Outcome description capturing the CTCN technical assistance. Deliverables are the products or services to be delivered to the NDE/Proponent/CTCN based on the Activities and the Outputs.)

	Month														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
***Objective**:* The objective of this technical assistance is to introduce green building standards for enhanced energy efficiency in three building types (residential buildings, office buildings, and commercial complexes) and introduce effective mechanisms for their operationalization															
Outcome: Based on the introduced green building standards and their operationalization, Zimbabwe will contribute to its NDC targets by significantly reducing energy consumption and GHG emissions in the buildings sector															
Output 1: Development of implementation planning and communication documents															
Activity 1: *All implementers must undertake the following activities at the beginning and at the end of the CTCN technical assistance.* i) A detailed work plan of all activities, deliveries, outputs, deadlines and responsible persons/organisations and detailed budget to implement the Response Plan. The detailed work plan and budget must be based directly on this Response Plan; ii) Based on the work plan, a monitoring and evaluation plan with specific, measurable, achievable, relevant, and time-bound indicators used to monitor and evaluate the timeliness and appropriateness of the implementation. The monitoring and evaluation plan should apply selected indicators from the Closure and Data Collection report template and enable the lead implementer to complete the CTCN Closure and Data collection report at the end of the assignment (please refer to item iv below and section 14 in the Response Plan); iii) A two-page CTCN Impact Description formulated in the beginning of the technical assistance and update/revised once the technical assistance is fully delivered (a template will be provided); iv) A Closure and Data Collection report completed at the end of the technical assistance (a template will be provided).															
Deliverable 1: i) Detailed work plan ii) Monitoring and evaluation plan iii) CTCN Impact Description iv) Closure and Data Collection report	X X X														X X
Output 2: Introduction of project coordination mechanism															

Activity 2.1: Map relevant stakeholders and establish a stakeholder working group Identify relevant stakeholders among governmental institutions at the national and sub-national level, building and construction industry, energy efficiency and renewable energy sector, private sector, civil society, academic institutions and beneficiaries. The working group shall maintain a gender balance and an adequate representation from vulnerable groups. It will provide a technical overview and a high-level guidance at every stage of the technical assistance.															
Activity 2.2: Conduct an inception meeting An inception meeting will be organized to present the goals, milestones, anticipated deliverables and the role of the stakeholder working group. The inception meeting will be held in-person, depending on the national regulations for in-person meetings at that moment.															
Activity 2.3: Conduct of regular working group meetings Regular stakeholder working group meetings (Months 3, 6, 9 and 12) will be held in order to provide input to and validate outputs, including the building and regulatory assessment, and technology and best practice identification (Output 3), the development of green building standards and policy guidelines (Output 4), and the MV&E Framework (Output 5). One of the quarterly meetings will be held in person, depending on the national regulations for in-person meetings at that moment. For the in-person meeting, travel costs and DSA for working group members will be covered. The others will be held virtually for which no DSA will be paid to working group members.															
Deliverable 2: Deliverable 2.1: Stakeholder Map, List of stakeholder working group members Deliverable 2.2: Inception meeting report, including agenda and (gender disaggregated) list of participants Deliverable 2.3: Quarterly stakeholder working group meeting reports including agenda and (gender disaggregated) list of participants	X X		X			X			X			X			
Output 3: Assessment of building groups and regulations in Zimbabwe, and diagnosis of technological needs															
Activity 3.1: Assessment of the current performance of building groups and existing regulations															

As a first step, this activity will assess the technology and energy performance of the three building types (1) residential buildings, (2) office buildings, and (3) commercial complexes in Zimbabwe. In particular, the performance in terms of cooling, lighting, heating, and insulation will be studied. This will include, inter alia, an assessment of the building envelop, roofing, comfort system and controls, lighting and controls, and rooftop solar PV. As a second step, existing relevant regulations in the building sector will be analyzed. This includes, in particular, the existing Green Building 5-star rating tool certification system.															
Activity 3.2: Identification of international best practices and technologies International best practices, including technologies and regulations, in the building sector related to cooling, lighting, heating and insulation will be reviewed. Focus will be placed on relevant best practices and technologies successfully deployed in the Southern African region. Furthermore, an assessment will be conducted to map available energy efficiency and renewable energy technologies and buildings materials that can help achieve desired energy savings in new buildings and retrofits of existing buildings. Based on this assessment, a database of clean energy technologies and buildings materials relevant for Zimbabwe's energy performance goals and holding an optimal deployment potential on the national market will be created. This database will help finalize energy performance parameters for the revised building codes in a grounded and realistic manner.															
Activity 3.3: Gap analysis and evaluation of savings potential The activity will conduct a gap analysis to identify limitations of existing national policies, laws, regulations, and guidelines, as well as current performance levels of the three building types (residential buildings, office buildings, and commercial complexes) to help the country improve on the implementation of legal and regulatory energy performance provisions, and the adoption of clean energy technologies and building materials. Besides limitations, an evaluation of the savings potential through energy performance provisions and clean energy technologies and building materials will be conducted.															
Deliverables 3: Deliverable 3.1: Assessment report on building performance and regulations Deliverable 3.2: Benchmark report on international best practices and technologies Deliverable 3.3: Report on gap analysis and savings potential evaluation			X	X		X									

Output 4: Development of green building standards															
Activity 4.1: Development of draft green building standards and policy guidelines Under this activity, the draft green building standards and related policy guidelines will be developed for the three building types (residential buildings, office buildings, and commercial complexes) to cater for building design and evaluation, construction, technology implementation, retrofits, operation and maintenance. In this context, existing standards and regulations, such as the Green Building 5-Star Rating Tool Certification and the standard building by-laws, will be aligned or integrated with the new green building standards to be developed. The updating of existing building by-laws should also be carried out. The green building codes to be developed will be built on the results of the assessment, benchmark and gap reports of Output 3.															
Activity 4.2: Public consultation process The draft green building standards will be published for public consultation and provision of comments for a period of 2 months (if not required differently by guidelines of the Standards Association of Zimbabwe). At the end of the consultation process, a 1-day validation workshop will be held with a wider group of stakeholders. A maximum of 50 individuals can participate at the workshop. Workshop facilities and supply (food, beverages) will be covered but no DSA or travel compensation can be paid to workshop participants.															
Activity 4.3: Finalization of green building standards and policy guidelines Comments from the public consultation process as well as interactions with the stakeholder working group will be incorporated and a final draft of the green building standards and policy guidelines will be developed. The standards will be submitted to the Standards Association of Zimbabwe (SAZ) for official consideration. The policy guidelines will be taken foreward by the Ministry of Local Government and Public Works.															
Deliverables 4: Deliverable 4.1: Draft green buildings standards and policy guidelines Deliverable 4.2: Public consultation report Deliverable 4.3: Final green buildings standards and policy guidelines									X		X				

												X			
Output 5: Development of effective mechanisms and tools for the implementation of building standards															
Activity 5.1: Development of an effective MV&E framework To facilitate the successful implementation of the green building standards, a monitoring, verification and enforcement (MV&E) framework will be developed. The activity will assess MV&E needs and how roles and responsibilities over the green building standards' compliance evaluation, monitoring and enforcement are to be distributed. This also includes the development of a methodology for assessing the energy performance baseline of existing and new buildings, as well as the development of energy audit methodologies and templates.															
Activity 5.2: Development of user manuals This activity will develop user manuals that will help professionals comply with the new green building codes step by step for retrofitting old buildings and for the construction of new buildings. It will contain practical information such as a clean technologies and materials database developed under Activity 3.2, a registry of certified energy auditors by locality and case studies.															
Activity 5.3: Delivery of a training the trainers programme This activity will include the delivery of a training the trainers programme on increasing the energy efficiency in existing and new buildings, targeting experts (including architects, engineers, constructors, and energy managers) with the objective to capacitate them to provide trainings. It will elucidate the newly developed green building standards and MV&E framework, provide an overview on the clean technologies and materials database (Activity 3.2), highlight cost-benefit opportunities and provide guidelines on training provision. The training the trainers programme will host a maximum of 20 participants and will take place in person over a period of 3 days, if not otherwise required my national regulations at the time of delivery. An equal participation of women shall be guaranteed.															
Deliverables 5: Deliverable 5.1: MV&E Framework Deliverable 5.2: User manuals Deliverable 5.3: Capacity building material, programme report including agenda and (gender												X		X	X

disaggregated) list of participants														

4. Resources required and itemized budget:

Please provide an indicative overview of the resources required and itemized budget required to implement the CTCN technical assistance, including for M&E-related activities, using the table below. Important to note that minimum 1% of the budget should explicitly target gender specific activities related to the technical assistance (please see section 10 for further information on gender). Once the Response Plan is completed, a Response Implementation partner(s) will be selected by the Climate Technology Centre (CTC). A detailed activity-based budget for the CTCN assistance will be finalized by the CTCN and selected Implementer.

Activities and Outputs	**Input: Human Resources** *(Title, role, estimated number of days)*	**Input: Travel** *(Purpose, national vs. international, number of days)*	**Inputs: Meetings/events** *(Meeting title, number of participants, number of days)*	**Input: Equipment/Material** *(Item, purpose, buy/rent, quantity)*	**Estimated cost** *Please accumulate the costing at Activity and Output level and provide an estimated costing range for each activity and the total Response Plan*	
					Minimum	**Maximum**
Output 1: Development of implementation planning and communication documents	IE1: 5 days NE1: 5 days				**USD 3,500**	**USD 3,850**
Activity 1.1: Formulation of i) Detailed work plan, ii) Monitoring and evaluation plan, iii) CTCN Impact Description, iv)					USD 3,500	USD 3,850

Closure and Data Collection report.						
Output 2: Introduction of project coordination mechanism	IE1: 14 days IE2: 8 days NE1: 18 days NE2: 5 days NE3: 6 days NE4: 5 days NE5: 6 days				**USD 39,320**	**USD 43,252**
Activity 2.1: Map relevant stakeholders and establish a stakeholder working group					USD 4,400	USD 4,840
Activity 2.2: Conduct an inception meeting		International travel of 3 days for IE1 and IE2 National travel of 1 day for NE1, NE2, NE3, NE4 and NE5 National travel of 1 day for inception meeting participants	Inception meeting, 1 day, 20 participants (+ 7 consultants)		USD 18,120	USD 19,932
Activity 2.3: Conduct of regular working group meetings		National travel of 1 day for NE1, NE2, NE3, NE4 and NE5 National travel of 1 day for working group	4 quarterly meetings, each 1 day, 20 participants (+ 5 consultants) One of the quarterly		USD 16,800	USD 18,480

		participants	meetings will be in-person with international consultants (IE1 and IE2) joining virtually.			
Output 3: Assessment of building groups and regulations in Zimbabwe, and diagnosis of technological needs	IE1: 30 days IE2: 15 days NE1: 30 days NE2: 30 days NE3: 15 days				**USD 37,500**	**USD 41,250**
Activity 3.1: Assessment of the current performance of building groups and existing regulations					USD 12,500	USD 13,750
Activity 3.2: Identification of international best practices and technologies					USD 12,500	USD 13,750
Activity 3.3: Gap analysis and evaluation of savings potential					USD 12,500	USD 13,750
Output 4: Development of	IE1: 23 days IE2: 23 days				**USD 47,920**	**USD 52,712**

green building standards	NE1: 23 days NE2: 21 days NE3: 18 days NE4 : 1 day NE5: 7 days					
Activity 4.1: Development of draft green building standards and policy guidelines					USD 24,000	USD 26,400
Activity 4.2: Public consultation process		National travel of 1 day for NE1, NE2, NE3, NE4 and NE5	1 consultation process validation workshop, 1 day, maximum of 50 participants + 7 consultants International consultants will be joining virtually.		USD 15,720	USD 17,292
Activity 4.3: Finalization of green building standards and policy guidelines					USD 8,200	USD 9,020
Output 5: Development of effective mechanisms and tools for the implementation of building standards	IE1: 25 days IE2: 9 days NE1: 25 days NE2: 15 days NE3: 12 days NE4: 25 days				**USD 55,150**	**USD 60,654**

	NE5: 5 days					
Activity 5.1: Development of an effective MV&E framework					USD 11,500	USD 12,650
Activity 5.2: Development of user manuals					USD 6,900	USD 7,590
Activity 5.3: Delivery of a training the trainers programme		International travel of 5 days for IE1 National travel of 3 days for NE1, NE2, NE3, NE4 and NE5 National travel of 3 days for training the trainers workshop participants	Training the trainers workshop, 3 days, 20 participants (+ 6 consultants)		USD 36,740	USD 40,414
Estimated range of costing for the entire Response Plan					**USD 183,380**	**USD 201,718**

5. Profile and experience of experts

Based on the required Human Resources identified in section 4 (Resources required and itemized budget) please provide a description of the required profile of all involved experts for the implementation of the CTCN Response Plan.

Experts required	Brief description of required profile

International experts	
Team leader and energy efficiency technology expert (IE1)	• Master's degree or higher in civil or mechanical engineer with focus on building physics and green building designs • At least 10 years of experience in a lead role in implementing national and international development projects related to energy efficiency in buildings or the development/design of green buildings • Experience in carrying out or having been directly involved in at least one assignment of similar nature and complexity close to the present assignment • Experience with coordinating and liaising with multiple national and international stakeholders • Experience with developing building standards and improving energy efficiency in buildings • Experience in Southern Africa highly desirable
Legal expert (IE2)	• Master's degree or higher in construction, environmental or energy law • At least 10 years of experience in formulating and revising technical regulations, by-laws and norms • Knowledge of legislative and legal requirements in the construction and energy consumption in buildings sectors highly desirable • Experience in Southern Africa highly desirable
National experts	
Energy efficiency and technology expert (NE1)	• Master's degree or higher in mechanical engineering with a focus on energy efficiency and renewable energy or related field • At least 8 years of experience in improving energy efficiency in buildings • Strong familiarity with the context, challenges and opportunities in the building sector of Zimbabwe • Detailed knowledge of buildings related energy systems, locally available building energy efficiency technologies and materials, and existing building planning and construction norms • Experience with developing energy efficiency building standards is desirable
Architect (NE2)	• Bachelor's degree or higher in building construction, architecture or related fields from a recognized university • At least 8 years of experience in the energy efficiency in buildings sector or the development / planning of Green Buildings. • Detailed knowledge of local and regional construction sector trends and requirements, and good knowledge of

	local construction practices and construction materials • Experience with contributing towards developing technical specifications for building standards related to the building envelop
Legal expert (NE3)	• Master's degree or higher in construction, environmental or energy law • At least 8 years of experience in formulating and revising technical regulations, by-laws and norms • Knowledge of national legislative and legal requirements in the construction and clean energy sector
Capacity building and skills development consultant (NE4)	• Bachelor's degree or higher in communication, education, energy, engineering or related fields • At least 8 years of experience in training professionals in the clean energy and/or building and construction sector • Experience in developing manuals and professional training modules • Knowledge of construction requirements and building planning procedures highly desirable
Gender expert (NE5)	• Bachelor's degree or higher in gender studies or related fields • At least 8 years of experience in mainstreaming gender benefits in development programs • Knowledge of energy efficiency and building sectors highly desirable

6. Intended contribution to impact over time

Zimbabwe's Low Emission Development Strategy (LEDS) 2020-2050 indicated that electricity and heat generation for the built environment contributed 47% of energy sector GHG emissions in 2015. Zimbabwe aims to tackle the challenge of increasing energy demand and inefficient energy consumption of buildings through the introduction of green building standards. Over time, this will promote the use of energy efficiency and renewable energy in the building sector, thus contributing to realizing the country's energy efficiency potential.

7. Relevance to NDCs and other national priorities

Zimbabwe's revised **National Determined Contribution** from 2021 sets a target to reduce its GHG emissions by 40% across the economy by the year 2030. Within the energy sector, being the second largest contributor to national GHG emissions, mitigation measures include energy efficiency improvements in the commercial and residential sector. (p.24)

The Zimbabwe **Vision 2030** aims to foster inclusive economic growth and address poverty resolutely, thereby transforming Zimbabwe into an industrializing, knowledge based upper middle-income country that provides a high quality of life to all its citizens by 2030. Part of it is the development of standards which will establish hybrid and new resilient housing for all. (p.33)

The **National Development Strategy (NDS) 1** is an economic blueprint for Zimbabwe to move towards an 'Empowered and prosperous upper middle-income society by 2030'. One of the more specific objectives of the Strategy is to 'Ensure sustainable environmental protection and resilience' with key priorities being Housing Delivery; Transport, Infrastructure & Utilities and Climate Resilience and Natural Resource Management' (p. x-xi, Chapter 6 p.112)

The **Low Emission Development Strategy (2020 – 2050)** highlights 38 mitigation actions the nation should adopt in order to reach targets as highlighted in the country's NDC. The LEDS highlights the need to shift to low carbon development pathways through adoption and uptake of renewable energy sources, energy efficient appliances and green building materials. (Chapter 3, p.5)

Zimbabwe's **Energy Efficiency Policy** calls for investment into construction and infrastructure development which will reflect energy performance and efficiency in new and existing commercial developments as well as the valuation of commercial buildings. (p.11, 15)

The **Human Settlements Policy** seeks to frame attainment of all Sustainable Development Goals (SDGs) based on its focus goal of well-planned and governed settlements. The Policy highlights that settlement planning and design will be based on a criterion which includes environmental stewardship/sustainability and resilience amongst its criteria. (p.22)

8. Linkages to relevant parallel on-going activities:

Stakeholder Consultations:
The Government of Zimbabwe through the Ministry of Environment, Climate, Tourism and Hospitality Industry (MECTHI) and the Ministry of Energy and Power Development (MOEPD) have been in the forefront in developing policy instruments to tackle climate change. MECTHI has developed the National Climate Policy and the National Climate Change Response Strategy. MOEPD on the other hand has developed the National Renewable Energy Policy, Energy

Efficiency Policy, Net-Metering Regulations and Solar Water Heating Regulations.

In order to complement the government efforts, the Green Building Council of Zimbabwe (GBCZw) was established as a non-profit organization to collaborate for a sustainable built environment. The GBCZw works with government, the private sector and specific civic society organizations focusing on Advocacy, Education and Training and the facilitation of Building Rating and Certification. Since inception, the GBCZw has developed a Local Context Report for the adoption of Green Star Building Rating and Certification system. In addition, the GBCZw has and continuously participates in speaking fora and workshops with stakeholders that include local government, real estate associations and building and construction associations. The GBCZw currently has a six-member board representing various sectors of the built environment and a lean secretariat structure. Twenty (20) founder members of the GBCZ who are also in the GBCZ Board have received extensive training with physical international bench marking on driving the change in the nation.

Projects and Initiatives:

- GCF Readiness project 'Leapfrogging Zimbabwe's market to energy-efficient refrigerators and distribution transformers' – the main aim of the project is to develop minimum energy performance standards (MEPS) and labelling schemes. The project will also see the development of a National Policy Roadmap with financial incentives for adoption of energy efficient refrigerators and distribution transformers. Although the MEPS are being developed for appliances, the project is establishing structures, raising awareness and developing skills of locals providing potential to upscale to MEPS for infrastructure setting carbon or energy rating, or minimum renovation measures.
- The Ministry of National Housing and Social Amenities in collaboration with Engineering institutions across Zimbabwe are currently reviewing the Model building by-laws taking into account climate resilience, the use of alternative technologies in buildings and promotion of local sustainable materials for construction. The Ministry is also putting out calls for proposals requesting for comprehensive proposals on development of public housing designs that take into consideration the use of green and sustainable building materials and natural lighting amongst others.
- The various Ministries are promoting the inclusion of solar panels and solar thermal geysers in infrastructure design as provided for in the National Renewable Energy Policy and enforced by SI 235 of 2019.

9. Anticipated follow up activities after this technical assistance is completed:

Following the completion of the technical assistance, Zimbabwe will conduct the following follow-up activities:

- Adoption of green building standards (if not done already during the runtime of the technical assistance)
- Operationalization of MV&E Framework and training of energy auditors/managers
- Operational usage and distribution of the clean technologies and materials database
- Ongoing capacity building on clean technologies and materials database within industry and consumers

10. Gender and co-benefits:

Imbedded in design of the activities:	The project aims to actively involve women at each stage of its

	implementation and ensure that their participation is brought in at all levels of decision making. This technical assistance will facilitate women's participation in the following ways: • **Decision making:** Active involvement in decision making processes of female professionals within the built environment, manufacturing industry, and user groups • **Capacity building:** all capacity building activities will include women participants at an equitable basis • **Awareness raising:** Activities will have a specific part targeted to all relevant women stakeholders.
Gender and co-benefits intended as result of the activities:	As a result of the technical assistance, the following co-benefits for women, youth and other vulnerable groups are expected: • Women will gain access to a more reliable energy supply and an improved quality of life • Ongoing capacity building and skills enhancement will be provided to women in the construction sector • Business opportunities for women in the buildings and construction sector will be set forth

11. Main in-country stakeholders in implementation of the technical assistance activities:

Using the table below, please list and describe the role of in-country stakeholders, participants and beneficiaries who will be involved in or directly consulted during implementation of the assistance.

In country stakeholder	Role in implementation of the technical assistance
Ministry of Environment, Climate, Tourism and Hospitality Industry *(CTCN NDE and GCF NDA)*	Technical assistance coordination, stakeholder engagement, standards shaping and development
Ministry of National Housing and Social Amenities	Technical assistance coordination, stakeholder engagement, data and research input, standards shaping and development, action planning and operationalization of standards
Ministry of Local Government and Public Works	Technical assistance coordination, stakeholder engagement, data and research input, standards shaping and development, action planning and operationalization of standards
Ministry of Energy and Power Development	Data and research input, standards shaping and development
Ministry of Industry and Commerce	Data and research input, standards shaping and development
Green Building Council of Zimbabwe	Technical assistance coordination, stakeholder engagement, data and research input, standards shaping and development
Standards Association of Zimbabwe	Development and adoption of standards
Construction Federation Industry in	Stakeholder engagement, action planning and

Zimbabwe	operationalization of standards
City of Harare and the 72 Municipalities in Zimbabwe Rural District Councils	Standards shaping and development, action planning and operationalization of standards
Institute of Architects of Zimbabwe	Standards shaping and development, action planning and operationalization of standards, research and implementation
Zimbabwe Institution of Engineers	Policy shaping and development, action planning and operationalization of standards, research and implementation
Environmental Management Agency	Action planning and operationalization of standards, data and research input
Infrastructure Development Bank of Zimbabwe (IDBZ)	Private sector mobilization and stakeholder input, input into financial measures and instruments to stimulate development of green buildings
Zimbabwe Institute of Urban and Regional Planners	Policy shaping and development, research and implementation
Private Sector (Manufacturing Industries)	Assisting in the identification of market needs and exploring new economic opportunities, input into financial measures and instruments to stimulate green building uptake
Universities and research institutions • Chinhoyi University of Technology • National University of Science and Technology • Harare Institution of Technology • University of Zimbabwe • SIRDC	Data and research input, stakeholder engagement
Media • The Herald • Zimpapers	Communication and knowledge distribution on standards and green buildings
NGOs and Development Partners	Stakeholder engagement, potential follow-up funding
Commercial, Development and International Banks	Private sector mobilization and stakeholder input, input into financial measures and instruments to stimulate development of green buildings

12. SDG Contributions:

*Instructions: Please complete the grey section below for **a maximum of three SDGs** that will be advanced through this TA. A complete list of SDGs and their targets is available here: https://sustainabledevelopment.un.org/partnership/register/.*

Goal	Sustainable Development Goal	Direct contribution from CTCN TA (1 sentence for top 1-3 SDGs)
1	End poverty in all its forms everywhere	
2	End hunger, achieve food security and improved nutrition, and promote sustainable agriculture	

3	Ensure healthy lives and promote well-being for all at all ages	
4	Ensure inclusive and equitable quality education and promote life-long learning opportunities for all	
5	Achieve gender equality and empower all women and girls	
6	Ensure availability and sustainable management of water and sanitation for all	
7	Ensure access to affordable, reliable, sustainable, and modern energy for all (consider adding targets for 7)	Implementation of green building standards will contribute towards reducing energy consumption in existing buildings and energy demand in new buildings, thus making energy supply more reliable and sustainable.
	7.1 - By 2030, ensure universal access to affordable, reliable and modern energy services	Green building standards will facilitate the use of renewable energy and energy efficiency technologies. This will contribute to making the national energy supply cleaner and modern.
	7.2 - By 2030, increase substantially the share of renewable energy in the global energy mix	
	7.3 - By 2030, double the global rate of improvement in energy efficiency	
	7.a - By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology	Implementation of the green building standards will generate new opportunities for international cooperation on energy efficiency and renewable energy technologies.
	7.b - By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support	
8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	
9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	
10	Reduce inequality within and among countries	
11	Make cities and human settlements inclusive, safe, resilient and sustainable	
12	Ensure sustainable consumption and production patterns	
13	Take urgent action to combat climate change and its impacts	*All TAs should indicate relevance to Goal 13 and at least one target below (13.1 to 13.b).*
	13.1 - Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	
	13.2 - Integrate climate change measures into national policies, strategies and planning	
	13.3 - Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	Capacity building and awareness raising activities will facilitate implementation of the green building standards in existing and new buildings, thus contributing to climate change mitigation.
	13.a - Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly $100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible	
	13.b - Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities	
14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	
15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	
16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	
17	Strengthen the means of implementation and revitalize the global partnership for sustainable development	

13. Classification of technical assistance:

Please indicate primary type of technical assistance. Optional: If desired, indicate secondary type of technical assistance.

Please tick off the relevant boxes below	*Primary*	*Secondary*
☐ 1. Decision-making tools and/or information provision	☐	☐
☐ 2. Sectoral roadmaps and strategies	☐	☐
☐ 3. Recommendations for law, policy and regulations	X	☐
☐ 4. Financing facilitation	☐	☐
☐ 5. Private sector engagement and market creation	☐	X
☐ 6. Research and development of technologies	☐	☐
☐ 7. Feasibility of technology options	☐	X
☐ 8. Piloting and deployment of technologies in local conditions	☐	☐
☐ 9. Technology identification and prioritisation	☐	X

Please note that all CTCN technical assistance contributes to strengthening the capacity of in country actors.

14. Monitoring and Evaluation process

Upon contracting of the implementing partners to implement this Response Plan, the lead implementer will produce a monitoring and evaluation plan for the technical assistance. The monitoring and evaluation plan must include specific, measurable, achievable, relevant, and time-bound indicators that will be used to monitor and evaluate the timeliness and appropriateness of the implementation. The CTCN Technology Manager responsible for the technical assistance will monitor the timeliness and appropriateness of the Response Plan implementation. Upon completion of all activities and outputs, evaluation forms will be completed by the (i) NDE about overall satisfaction level with the technical assistance service provided; (ii) the Lead Implementer about the knowledge and learning gained through delivery of technical assistance; and (iii) the CTCN Director about timeliness and appropriateness of the delivery of the activities and outputs.

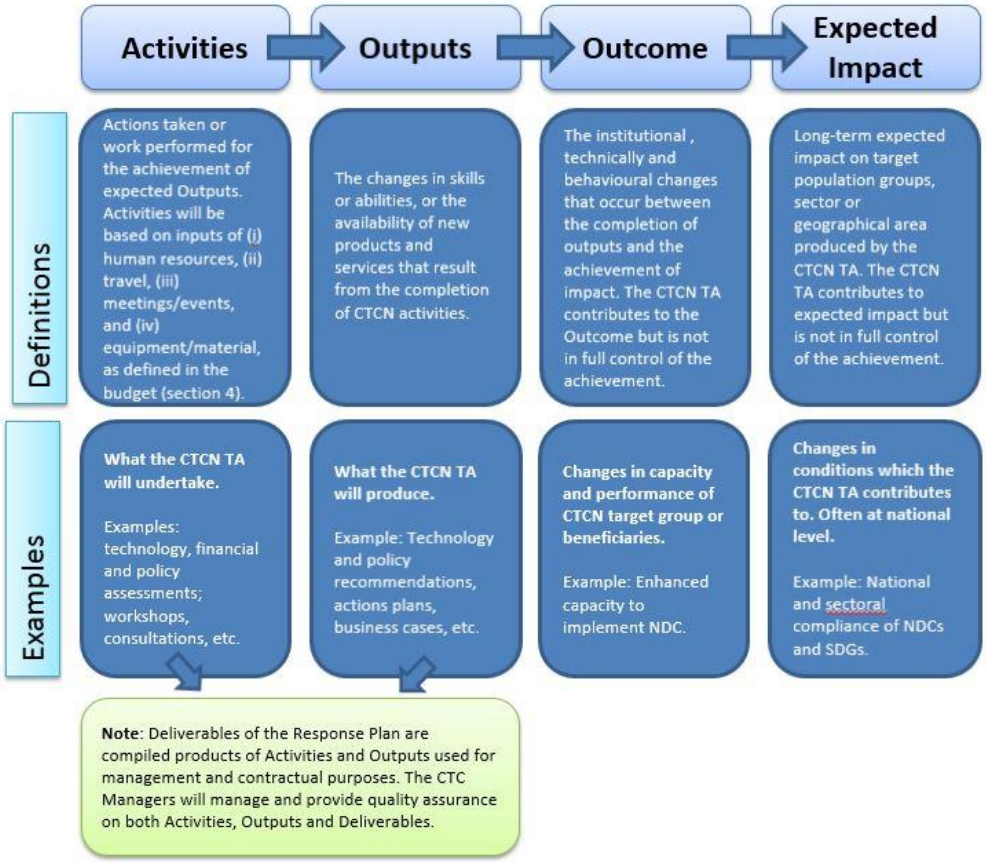
Annex 1: Guidance note for designing a Response Plan (to be deleted when submitting the Response Plan)

1. Objective of the Response Plan

The Response Plan is developed by CTCN specialists in response to a country request for technical assistance. It constitutes the Terms of Reference of the CTCN technical assistance that will be provided to the country and it provides the formulation of and subsequent basis for the monitoring and evaluation of the Response Plan implementation, as well as its expected outcomes and anticipated impacts.

2. Results chain and Logical Framework Approach to be defined in the CTCN Response Plan

The result chain is the causal sequence that stipulates the necessary flow of actions and processes to achieve desired objectives and results – beginning with inputs, moving through activities and outputs, and culminating in individual outcomes. The outcome will contribute to the desired impact in the society. The Logical Framework Approach is an analytical process used to support objectives-oriented project planning and management. It provides a set of pre-defined concepts which are used as part of an iterative process to aid structured and systematic analysis and management of the CTCN technical assistance.



3. Role of the Response Planning Design Team

The Response Planning Design Team is selected by the Climate Technology Centre (CTC). The composition of the team depends on each particular request but may include the National Designated Entity (NDE), the request Proponent, Climate Technology Manager of the CTCN, experts from the CTCN Consortium, UNIDO and UNEP experts from regional offices and other experts as needed.

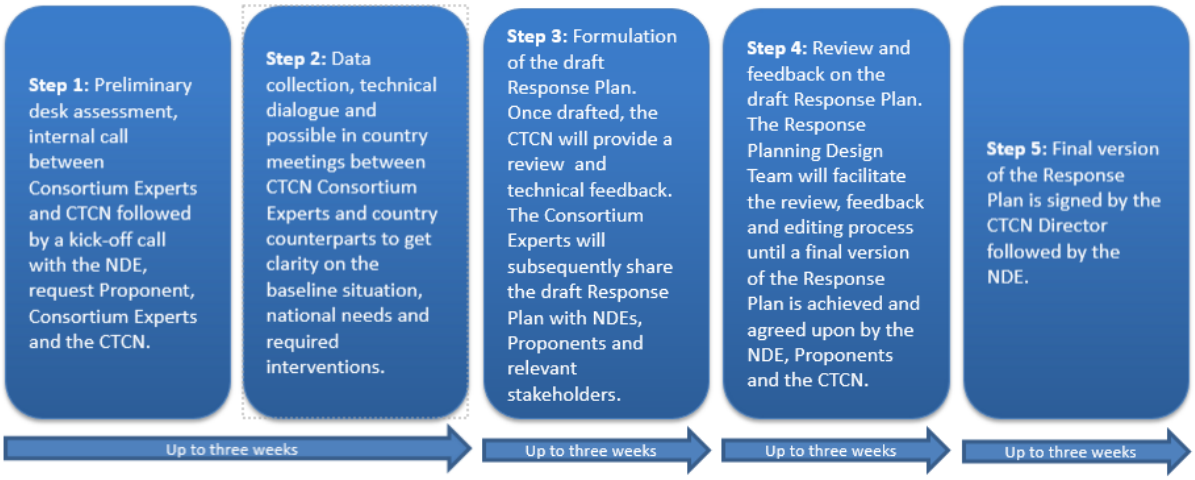
The role of CTCN Consortium experts is to lead the design of the Response Plan. The NDE will provide overall guidance on national context and priorities whereas the request Proponent will provide more detailed information on the sector, barriers and requested assistance. The Climate Technology Manager of the CTCN will provide quality assurance of timeliness and appropriateness of the Response Plan.

The Response Planning Design Team will draft all sections of the Response Plan template building on the information contained in the CTCN Request, based on expertise on the given topic and potentially further data collection, as required. This will be done by the CTCN Consortium Experts in consultation with the NDE, request Proponent and relevant stakeholders. The Response Plan has to be agreed to and approved by the NDE and the CTCN Director. This Response Plan will serve as the basis to identify, select and engage an expert institution from the Climate Technology Network or Consortium to lead the implementation of the CTCN Response Plan in the requesting country.

To the extent possible, staff from UNEP and UNIDO Regional, Sub-Regional and/or National Offices should be involve in all stages of formulation of the Response Plan to maximize synergies and avoid overlap with ongoing initiatives, as well as ensure relevance to regional and national context.

4. Process for designing the Response Plan

The Response Planning process should be completed over a period of up to 60 working days (12 weeks). Indicative steps and related timelines are laid out below:



5. Design Considerations

Annex 1. Guidance Note for the Response Plan template

In order to maximize the impact of the technical assistance provided by the CTCN and provide an effective M&E process, the Response Plan should integrate as much as possible the considerations below:

Climate Technology focus: The Response Plan should have a clear focus on climate technologies, and identify activities that enable the identification, development, deployment or diffusion of one or several specific technologies (including equipment, techniques, knowledge and skills).

Barrier removal / Problem solving: The activities should contribute to address the specific problem statement identified in the Request. The barriers identified should be those hampering the identification, development, deployment or diffusion of one or several climate technologies or climate actions. Therefore, it may be necessary to limit the CTCN Response Plan to a set of activities for technical assistance commonly agreed with the NDE (and Proponent when needed) compared to the original request submitted. The CTCN will liaise with NDEs and Proponent in case the scope of the technical assistance deviates from the original request.

Use of the CTCN assistance by stakeholders: The Response Plan should identify clearly how the products of the CTCN assistance will be used in the short term once support is delivered, by who and when, to ensure it will lead to specific impacts in the country. The activities should engage the stakeholders that will use the concrete results of the assistance to deploy the technologies, including from the private sector, the public sector, research institutions, etc.

Within the scope of CTCN resources: The cost of the technical assistance provided by the CTCN cannot exceed USD 250,000 per Response Plan. Therefore, it may be necessary to prioritize activities and limit the CTCN Response Plan to a set of priority activities commonly agreed with the Proponent and the NDE to remain under this value. Under section 4 of the Response Plan template, an indicative activity based budget should be presented. The proposed budget is indicative and should present an estimated costing range per activity, output as well as a total costing range for the delivery of the Response Plan. Once the Response Plan is finalised and published for tendering, interested parties will provide competitive offer against the indicative budget.

CTCN activities and outputs should be linkable to monitoring and evaluation indicators: All proposed activities and outputs must be linkable to monitoring and evaluation indicators that are specific, measurable, achievable, relevant, and time-bound. The monitoring and evaluation process and corresponding indicators will be developed by the Lead Implementer as part of the work plan and will allow the CTCN technology Manager to monitor the timeliness and appropriateness of the implementation.

Synergies with existing efforts: The Response Plan should focus on activities that are not already being fully supported or that are in the process of being fully supported by another national, regional or international organization. Synergies and complementarity also require that the CTCN assistance is not duplicating past activities. It is possible in the Response Plan to indicate co-financing from the government, the Proponent or another stakeholder, that will maximize the effectiveness of the CTCN assistance.

Gender mainstreaming: The CTCN mission is to build or strengthen developing countries' capacities to identify technology needs, to facilitate the preparation and implementation of technology projects and strategies taking into account gender considerations. The Response Plan must therefore describe how gender considerations will be included and monitored within the proposed activities, and any gender co-benefits that will be gained as a result of implementing the CTCN technical assistance.