

Guidelines:

- This Request Submission Form should be completed by the organisation requesting technical assistance from the Climate Technology Centre & Network (CTCN) in collaboration with the National Designated Entity (NDE) of the country in question
- The Form must be signed by the NDE. Please see updated contact list of NDEs here: <http://unfccc.int/ttclear/support/national-designated-entity.html>
- The Form can be submitted as a Word file containing a digital signature or as a signed and scanned PDF file in combination with an un-signed Word file
- For requests submitted by multiple countries, all the NDEs of the respective countries shall sign identical Forms before official submission to the CTCN
- NDEs have the opportunity to submit CTCN requests in collaboration with National Designated Authorities (NDAs) for the Green Climate Fund (GCF) if targeting the GCF Readiness Programme.

Requesting country or countries:	Vanuatu
Request title:	Please reflect the objective of the technical assistance in the title (maximum 200 characters). Expression of interest for TA support to the Green Building Initiative
NDE	Please add name of organization, name of individual, position, email and address. Abraham Nasak, Acting NDE, Ministry of Climate Change, anasak@vanuatu.gov.vu
Request Applicant:	Please add name of organisation, contact person, position, email and address of the organisation requesting assistance from the CTCN. Department of Energy, Antony Garae, Director, gantony@vanuatu.gov.vu

Climate objective:

- Adaptation to climate change
- Mitigation of climate change
- Combination of adaptation and mitigation of climate change

Geographical scope:

- Community level
- Sub-national
- National
- Multi-country

If the request is at a sub-national or multi-country level, please describe specific geographical areas (provinces, states, countries, regions, etc.).

Problem statement related to climate change (up to one page):

This section should answer the question “what is the problem?” Please summarize the problem related to climate change and/or the negative impacts of climate change in the country that the request aims to address.

The building sector in Vanuatu is having a major impact on the building and natural environment due to imbalanced building activities occurring during and after the design and construction phases. The high rate of new building constructions is also increasing dominant in urban areas, especially within the two main centres (Port Vila and Luganville). According to the Ministry of Public Utilities (MIPU), the current building construction growth rate is estimated at 20 new buildings constructed annually based on the population growth and urban migration activities. The major concern is that majority (or most) of the newly built buildings are not sustainable due to lack of design and knowledge about the type of materials and technologies available for use during construction. Thus, there will be an increase in the consumption and demand of building materials, energy, water, waste and improved indoor environmental conditions which in the long run may not be sustainable. This TA support request will assist Vanuatu with the level of developing and promoting building designs and explore technologies and measures that can be incorporated into the National Building Code and other designs to help make them sustainable, especially designs and technologies which could be made available in the country for use during construction of residential and commercial buildings and making the country a more sustainable place to live.

There are nil green building measures incorporated into the National Building Code. Thus, most buildings are built without considering the importance of having in place such measures. As this would eliminate all forms of energy and water loss and addressing the importance of long-term cost savings in regards to the material type and energy usage. Buildings should be designed to reduce the overall impact of the build environment on human health and the environment by efficiently using energy, water and waste.

Past and on-going efforts to address the problem (up to half a page):

This section should answer the question “what has been done or is currently being done to address the problem?” Please describe past and on-going processes, projects or initiatives implemented in the country or region to tackle the climate problem as described above.

Similar to other Pacific Island Countries, Vanuatu has experienced challenges in controlling especially, excessive energy consumption, water and waste due to high service demand within both the public and private sector buildings. The high interest rate for new investments within the country makes it very attractive location for investors in search for new business endeavours to construct unsustainable buildings. By optimizing building designs and adopting advanced energy efficiency and conservation measures, we can reduce our reliance on over consuming energy and conserving energy from low energy resources and designs.

In general, majority of buildings in Vanuatu are not efficiently built and in order to help achieve its mitigation targets, energy efficiency and conservation measures has become a priority target and must be implemented into the green building initiatives. The initiatives and action plans will provide a roadmap of clear and actionable measures which will benefit the country and ultimately demonstrate how Vanuatu, through implementation of the initiatives, would realize a significant role in benefiting from developed and sustainable buildings.

To initiate and support the idea of green building, the department of Energy has conducted several

energy audits, especially within government owned institutions. Several building performances, behaviours and practices were identified and recommended for improvement. These institutions collectively demonstrated very high energy consumptions and this may be due to the lack of energy management and building designs. Audits have been conducted at Vila Central Hospital (VCH), Northern District Hospital (NDH) in Santo, Lenakel Hospital in Tanna, Vanuatu institute of public administration and management in Vila; Santo Correctional Services, Vanuatu Agriculture College in Santo and some other institutions as well. VCH and NDH in Santo have implemented the recommendations and had reductions in electricity consumption by 20-50% monthly. In NDH reduction in monthly electricity bill from VUV\$1.0 m to VUV\$500,000 was realised.

To ensure success of the proposed initiatives, it is important that roles and responsibilities are incorporated into the action plans including the Vanuatu National Building code. A cross-functional team consisting of relevant stakeholders will be necessary for the implementation. With the existing National building Code, the main objective is to ensure that acceptable standards of structural sufficiency, health and comfort are maintain for the benefit of Vanuatu now and in the future.

Specific technology¹ barriers (up to one page):

Although green buildings have a major role to play in reducing the GHG emissions, there are several technology barriers to be considered in order to support the adoption of the initiatives. The cost of implementing the initiatives is a major challenge including the lack of awareness, information and education about the benefits, limited access to design criteria, construction materials and skilled workers and the lack of guidelines and policies to promote the initiatives.

Below are some of the major technology barriers that is preventing Vanuatu to develop and implement the initiatives. These barriers prevent communication, access to information, and collaboration.

- High cost of green building technologies;
The most significant barrier affecting the development of green building in Vanuatu is that the initial cost of the materials and technologies is higher than the normal building construction. This reduces the owner's profit when they set up a building. However, it will create long-term and sustainable development in their lifespan.
- Lack of knowledge about green building technologies;
Unfortunately, in Vanuatu, there is lack of information concerning the full benefits that green building can offer, which makes it difficult for people to invest in such building technologies.
- Lack of government incentives and financing schemes;
Lack of funds to invest in sustainable buildings has been noted as one of the barriers delaying the implementation of sustainable practice in the construction industry in Vanuatu. The challenge to finance green building requires a collaborative effort from the government and all stakeholders to mitigate it. The government as the lead, should promote the initiatives by creating more attractive financing mechanisms to motivate the private sector to participate in the implementation process.

¹ *"any equipment, techniques, practical knowledge and skills needed for reducing greenhouse gas emissions and adapting to climate change" (Special Report on Technology Transfer, IPCC, 2000)*

Sectors:

Please indicate the main sectors related to the request:

- | | | | |
|---|---|---------------------------------------|---|
| <input type="checkbox"/> Coastal zones | <input type="checkbox"/> Early Warning and Environmental Assessment | <input type="checkbox"/> Human Health | <input checked="" type="checkbox"/> Infrastructure and Urban planning |
| <input type="checkbox"/> Marine and Fisheries | <input checked="" type="checkbox"/> Water | <input type="checkbox"/> Agriculture | <input type="checkbox"/> Carbon fixation |
| <input checked="" type="checkbox"/> Energy Efficiency | <input type="checkbox"/> Forestry | <input type="checkbox"/> Industry | <input type="checkbox"/> Renewable energy |
| <input type="checkbox"/> Transport | <input checked="" type="checkbox"/> Waste management | | |

Please add other relevant sectors:

Cross-sectoral enablers and approaches:

Please indicate the main cross-sectoral enablers and approaches

- | | | | |
|---|--|---|--|
| <input checked="" type="checkbox"/> Communication and awareness | <input type="checkbox"/> Economics and financial decision-making | <input checked="" type="checkbox"/> Governance and planning | <input type="checkbox"/> Community based |
| <input type="checkbox"/> Disaster risk reduction | <input type="checkbox"/> Ecosystems and biodiversity | <input type="checkbox"/> Gender | |

Technical assistance requested (up to one page):

Founded on the problem statement, past/on-going efforts and technology barriers, please describe the requested technical assistance. The technical assistance should clearly contribute to mitigation or adaptation to climate change as described in the problem statement and contribute to overcome the specific technology barriers.

Within a clearly defined scope, the description of technical assistance should be structured into the following:

- Overall objective
- Anticipated groups of activities to be performed by the technical assistance
- Anticipated products to be delivered by the technical assistance.

Please note that the CTCN facilitates technical assistance and is not a project financing mechanism.

Keeping climate change issues in perspective, this TA will help develop and incorporate the green building initiatives into the Vanuatu Building Code. The initiatives will help support and stimulate actions towards mitigation measures including the enhancement of the building environment. In order to help accelerate energy efficiency and conservation measures and activities within existing and new buildings, it is important that we incorporate the initiatives into the Building Code which will be based on actual performances of the buildings, especially energy and water consumption and waste reduction. The initiatives will be developed, taking into account the types of buildings, climate and percentage of building areas to be considered during design and construction.

Management of activities will be coordinated by the Department of Energy (DoE), Department of Urban Planning and the Ministry of Public Utilities. DoE will support and facilitate the TA engagement with relevant stakeholders and assist with the collection of necessary information or data that is required to complete the activities in this assignment. The TA will be required to help support the key sector entities and the detailed scope of work description under the guidance of DoE and the Vanuatu government.

Actions required to be implemented by this TA:

1. Build partnerships between relevant stakeholders and collect necessary information;
2. Conducting of educational awareness about green building benefits;
3. Provide incentives for the green building initiatives;

This TA support will consist of 3 components with summary and details below.

Component 1: Review of the Existing Building Designs and Performances

Expected outcome: A technical study is required to be conducted prior to the development of these initiatives and action plans. The technical study will assist the parties involved to address and identify new concepts for building improvements. The initiatives will help reduce the overall impact of the built environment on human health and the natural environment by using energy, water and waste more efficiently.

Activities:

- 1.1 Review the Vanuatu National Building Code and consult MIPU accordingly on matters or amendments related to the green building initiative policy;
- 1.2 Continue with consultations amongst relevant stakeholders (major construction companies and civil engineers) to assess the current building designs and construction setups;
- 1.3 Conduct an in-depth feasibility study or survey (especially on existing technical and environmental criteria) of residential and commercial building designs in Vanuatu to identify the possible changes that are required to be incorporated into new buildings;
- 1.4 Carryout preliminary design reviews by observing the best engineering practices in existing buildings and make adjustments for new buildings;
- 1.5 Prepare a detail implementation plan for the initiatives.

Component 2: Drafting of the Green Building Initiative Guideline

Expected outcome: Having a general up-to-date information about building related matters in the country will be essential to evaluate the effectiveness of best building designs and action plans.

Activities:

- 2.1 Develop energy efficiency and conservation action plans or design for new building constructions;

- 2.2 Prepare the draft guideline and circulate it for stakeholder’s review and comments;
- 2.3 Present the draft green building guideline in a consultation workshop;
- 2.4 Finalise the green building initiative guideline.

Component 3: Implementation and Training Arrangement

The directives in the initiatives will also help plan, implement, and assess the effectiveness of managing energy, water and waste in a building.

Under these initiatives, the implementation plan will help:

- 3.1 establish and apply minimum energy performance standard requirements for new and existing buildings;
- 3.2 ensure the certification of building energy performance and regular inspections are enforce;
- 3.3 ensure that by 2030, these initiatives must be incorporated into the Vanuatu Building Code for implementation.

Expected timeframe:

Please indicate the expected duration period for the requested technical assistance. Please note CTCN technical assistance is limited to a maximum duration of 12 months.

The expected period would be up to 12 months

Anticipated gender and other co-benefits from the technical assistance:

Please describe the activities with gender linkages as well as the anticipated gender and other co-benefits (e.g. biodiversity, economic, social, cultural, etc.) that are likely to be generated as a result of the technical assistance.

For more information you can find guidelines on the CTCN’s website here:

<https://www.ctc-n.org/technologies/ctcn-gender-mainstreaming-tool-response-plan-development>

Further reading on gender can be found on the CTCN website here:

<https://www.ctc-n.org/technology-sectors/gender>

Key stakeholders:

Please list the stakeholders who will be involved in the implementation of the requested CTCN technical assistance and describe their role during the implementation (for example, government agencies and ministries, academic institutions and universities, private sector, community organizations, civil society, etc.).

Stakeholders	Role to support the implementation of the technical assistance
National Designated Entity	Overseeing the implementation of the overall tasks of the TA
Request Applicant	Department of Energy
Please add as many stakeholders and lines as required.	Ministry of Public Utilities and Ministry internal Affairs

Alignment with national priorities (up to 2000 characters including spaces):

Please describe how the technical assistance is consistent with national climate priorities such as: Nationally Determined Contribution, national development plans, poverty reduction plans, technology needs assessments, Low Emission Development Strategies, Nationally Appropriate Mitigation Actions, Technology Action Plans, National Adaptation Plans, sectorial strategies and plans, etc.

This TA will support the actions towards the national climate priority targets. It will support the following objectives of the Peoples Plan – The National Sustainable Development Plan 2016-2030.

Environmental Goal and Policy Objective:

- ENV 2.1 Increase access to knowledge, expertise and technology to enact our blue-green growth strategies
- ENV 2.2 Ensure new infrastructure and development activities cause minimal disturbance to the natural land and marine environment
- ENV 2.3 Promote renewable sources of energy and promote efficient energy use
- ENV 2.4 Reduce waste and pollution through effective waste management and pollution control
- ENV 2.6 Ensure adequate financial resources to support our sustainable development aspirations

Economic Goal and Policy Objective:

- ECO 2.1 Increase access to safe, reliable and affordable modern energy services for all that are generating from renewable sources and reduce reliance on imported fossil fuels.
- ECO 2.2 Ensure all people have reliable access to safe drinking water and sanitation infrastructure
- ECO 2.3 Ensure that all public infrastructure, including health, education and sports facilities are safe, accessible, secure and maintained in compliance with building codes and standards
- ECO 2.4 Enact clear infrastructure governance, legislative frameworks and standards for resilient infrastructure and maintenance
- ECO 2.5 Improve partnerships and the cost-effective use of resources to ensure sustainable asset management and maintenance

Vanuatu also has ambitious mitigation targets, as described in the National Energy Road Map (NERM), the Low Emission Development Strategy (LEDS), the National Determined Contribution and the National Adaptation Plans. The LEDS provides review of the alignment with the targets and vision for reduced emissions mitigation, resilience and adaption, especially in the energy sector till 2050. On the other hand, the NERM sets out priority targets to improve energy efficiency and initiate options to reduce the country's energy demand by 2030.

Reference document (please include date of document)	Extract (please include chapter, page number, etc.).
Nationally Determined Contribution (NDC)	Direct alignment and contribution to NDC implementation is required for all CTCN technical assistances. Please include a direct reference to the

	INDC/NDC document (chapter, page number, etc.).
Technology Needs Assessment	
National Adaptation Plans	
Nationally Appropriate Mitigation Actions	
Add others here as relevant	

Development of the request (up to 2000 characters including spaces):

Please describe how the request was developed at the national level and the process used by the NDE to approve the request before submitting it (who initiated the process, who were the stakeholders involved and what were their roles?) and describe any consultations or other meetings that took place to develop and select this request, etc.

Given the problem description and the lack of support at the national level, the Department of Energy is considering this initiative as a way forward towards efficiency and sustainability in the building sector. The building sector can become an important contributing element to the economy of Vanuatu if more support is provided to promote the sector. It is evident that it can also contribute to the environmental impact in many ways. Realizing this important role played by the sector, the government is proposing to develop the request and concept of the green building initiative.

Due to the high rate of increase in energy consumption, water and waste in old and new buildings, the green building concept will initiate a positive growth especially within the commercial and residential sectors. There were several consultations with the relevant stakeholders, and that is the Department of Urban Planning and the Ministry of Public Utilities with regards to the National Building Code. The mentioned departments are responsible for revising, implementing and enforcing the code.

Background documents and other information relevant for the request:

- Please list all relevant documents that will help the CTCN analyse the context of the request and national priorities. Please note that all documents listed/provided should be mentioned in this request in the relevant section(s), and that their linkages with the request should be clearly indicated. For each document, please provide web-links (if available) or attach to the submission form. Please add any other relevant information as required.
- Please indicate if this request has been developed with the support of the CTCN Request Incubator.

OPTIONAL: Linkages to Green Climate Fund Readiness and Preparatory Support

The CTCN is collaborating with the GCF in order to facilitate access to environmentally sound technologies that address climate change and its effects, including through the provision of readiness and preparatory support delivered directly to countries through their GCF NDA. These actions are in

line with the guidance of the GCF Board (Decision B.14/02) and the UNFCCC, particularly paragraphs 4 and 7 of 14/CP.22 that addresses Linkages between the Technology and the Financial Mechanisms².

The CTCN is therefore implementing some of its technical assistance using GCF readiness funds accessed via the country's NDA. Any application for GCF support, including the amount of support provided, is subject to the terms and conditions of the GCF and should be developed in conjunction with the NDA.

Please indicate whether this request has been identified as preliminarily eligible by the NDA to be considered for readiness support from the GCF.

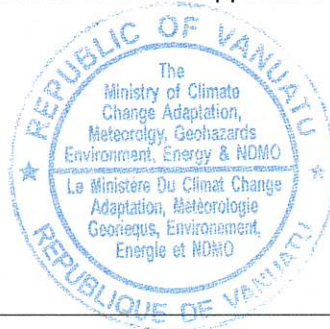
Initial engagement: The GCF NDA of the requesting country has been engaged in the design of this request and the NDA will be involved in the further process leading to an official agreement for accessing GCF readiness support.

Advanced engagement (preferred): The GCF NDA of the requesting country has been directly involved in the design of this request and is a co-signer of this request, the signature indicating provisional agreement to use readiness national funds to support the implementation of the technical assistance.

A/NDA name: Abraham Nasak

Date: 22nd February 2024

Signature:

Monitoring and impact of the assistance:

By signing this request, I affirm that processes are in place in the country to monitor and evaluate the technical assistance provided by the CTCN. I understand that these processes will be explicitly identified in the CTCN Response Plan and that they will be used in the country to monitor the implementation of the technical assistance following standard CTCN procedures.

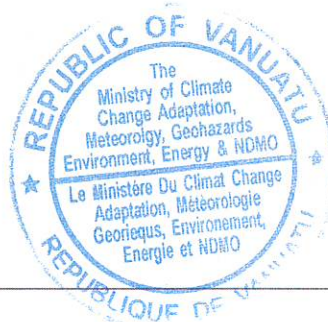
I understand that, after the completion of the requested assistance, I shall support CTCN efforts to measure the success and effects of the support provided, including its short, medium and long-term impacts in the country.

Signature:

A/NDE name: Abraham Nasak

Date: 22nd February 2024

Signature:

² Please see:

https://unfccc.int/files/meetings/marrakech_nov_2016/application/pdf/auv_cop22_i8b_tm_fm.pdf

THE COMPLETED FORM SHALL BE SENT TO THE CTCN@UNEP.ORG

The CTCN is available to answer all questions and provide guidance on the application process.