

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 NDE logistical support (Modality 3): The expected maximum value for all workshops / trainings / stakeholder’s consultations / events planned under the Response Plan (Section 5 – budget) will not exceed 10% of the value of the TA (i.e. max 25,000 USD).

Whenever the NDE has confirmed interest in benefitting from this modality of CTCN’s logistical support at the request stage, the procurement documents and contracts with the IP mandatorily request the IP to sub-contract the organization of the workshops to the NDEs. The awarded selected partner or his local partner will subcontract the organization of agreed workshops / trainings / stakeholder’s consultations / events planned under the Response Plan (Section 5 – budget) to the NDE.

Requesting country or countries:	Tanzania
Request title:	Support for Establishment of Tanzania Climate Innovation Centre (TCIC) within the Tanzania Commission for Science and Technology (COSTECH)
NDE	Dr. Gerald Majella Kafuku, Manager of Innovation and Technology Tanzania Commission for Science and Technology (COSTECH) P.O. Box 4302, Dar-Es-Salaam, United Republic of Tanzania Emails: gerald.kafuku@costech.or.tz , and kafukugm@gmail.com
Request Applicant:	Tanzania Commission for Science and Technology (COSTECH) P.O. Box 4302, Dar-Es-Salaam, United Republic of Tanzania Email: dg@costech.or.tz Contact person: Dr. Gerald Majella Kafuku Manager of Innovation and Technology Email: gerald.kafuku@costech.or.tz kafukugm@gmail.com

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):

Climate change presents a significant threat to Tanzania's socio-economic stability and environmental sustainability. Despite the urgent need for innovative solutions to mitigate and adapt to the impacts of climate change, many Tanzanian entrepreneurs and small to medium-sized enterprises (SMEs) face numerous challenges in developing and scaling their innovative ideas. These challenges include limited access to financial resources, inadequate capacity building, and a lack of incubation support tailored to climate-related ventures. Additionally, the transfer and deployment of climate technologies that are locally relevant and context-specific remain sluggish.

This threat is visible in recent years where there is evidence of unusual trends of rainfall, long periods, droughts, decrease in fresh water sources such as rivers, short period destructive rainfalls, diseases and many others. Access to energy, particularly for productive uses, is one of the key interventions that are envisaged to transform the productivity in rural areas. With over 65% of the rural population having no access to electricity, the use of alternative energy sources such as solar PV becomes critical. For instance, only 1.53% (or 450,392 ha.) of the 29.4 million hectares irrigable land is currently under irrigation and therefore solar pumping would increase all year around irrigation (Tanzania Vulnerability Report of 2018). Thus, promoting the adoption and scale up of environmentally sound technologies (ESTs) and practices is vital to improve production efficiency, boost productivity, enhance climate resilience and increase sustainability in the productive sectors.

Addressing these issues necessitates a comprehensive, one-stop shop that provides holistic and country-driven support for the entire lifecycle of climate innovation projects. This centre would offer a range of services including incubation, capacity building, and financing options specifically designed for new, small, and medium business ventures as well as Tanzanian entrepreneurs focusing on climate change solutions and sustainable development.

The proposed Climate Innovation Center aims to sustainably bridge the existing gaps by:

- Providing technical expertise and mentorship in various areas of technological and business development with regard to climate change;

- Mobilizing financial resources for assisting in technology demonstration and investment opportunities to foster the growth and scalability of climate-focused SMEs.
- Offering tailored incubation programs to nurture innovative ideas from conceptualization to market readiness.
- Facilitating capacity-building initiatives to equip entrepreneurs with the necessary skills, knowledge, and resources.
- Accelerating the development, deployment, and transfer of locally relevant climate technologies.
- Ensuring that support is country-driven, taking into account Tanzania's unique socio-economic and environmental contexts.

By addressing these critical barriers, the centre will empower Tanzanian entrepreneurs to lead the way in developing innovative, sustainable solutions to combat climate change and promote socio-economic development. It will ensure that the Tanzania Innovation System is further strengthened to support diffusion of climate technologies.

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

In the efforts to strengthen the Tanzania innovation system and ecosystem, various initiatives have been accomplished though there has never been an initiative directly related to establishment of a dedicated climate innovation centre. One of the notable efforts is the development of the National Innovation System Framework under COSTECH's coordination. The innovation system framework aims at integrating the roles of all science and technology stakeholders to foster the use of science and technology in productive sectors. Another initiative is the establishment of the National Carbon Monitoring Centre (NCCM) at the Sokoine University of Agriculture which serves the coordination of carbon market activities and carbon monitoring. These efforts, along with establishment of Buni innovation hub, which is now a mother hub coordinating more than 30 innovation centres in Tanzania, make a supportive innovation ecosystem that can be explored to support climate technologies and businesses through the envisaged climate innovation centre (TCIC).

Further, COSTECH in collaboration with Norwegian Agency for Development Cooperation (NORAD) and the Swedish International Development Cooperation Agency (Sida) have established a dedicated program within the National Fund for the Advancement of Science and Technology (NFAST) to support climate research in Tanzania. The climate research program is focused on providing grants to interdisciplinary and multidisciplinary research teams with ambitions of addressing the impacts of climate change in a sustainable manner through developing innovative hypotheses, experimentation of such hypotheses in the real world at district or region scale and upscaling the evidence-based adaptation solutions to other regions away from areas of experimentations.

The overall objective of the COSTECH climate research program is to ensure that contextually relevant knowledge on climate change adaptation and mitigation is used by governmental and non-governmental stakeholders at various levels across Tanzanian society. The call received over 100 applications from multi-disciplinary teams however only 41 of them were funded in this round. These are ground breaking initiatives and interventions proposed that have enormous potential for creating technologies and climate related solutions.

This is then the optimum time for COSTECH to create synergy and support these solutions through incubation and capacity building from research to commercialisation

Specific technology¹ barriers (up to one page):

Tanzania, as many African countries, recognize the potential and opportunities that come with embracing climate friendly technologies in the economic undertakings. One of the areas that the country sees its potential is the adaptation and domestication of environmentally sound technologies in productive sectors through research, development and demonstration. However, there have been technological barriers making inadequate diffusion of these technologies such as:

- there is no specific incubation facilities that aim to support climate related start-ups and/or ideas
- inadequate tooling and analytical facilities for product and technology development especially in the R&D institutions
- lower practices and interests to translate R&D outputs into proven products and interventions
- few financial opportunities to pilot climate interventions emanated in various projects such as from CTCN technical assistances
- little awareness and skills to prepare fundable climate proposals and project formulation to harness global climate funds such as GCF, GEF, AF, MAF, etc.
- little connection between generated climate solutions with government budget to enhance sustainability
- lower awareness of best sustainability models in various climate projects.

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 |
|--|---|---------------------------------------|---|

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)**

<input type="checkbox"/> Marine and Fisheries	<input type="checkbox"/> Water	<input type="checkbox"/> Agriculture	<input type="checkbox"/> Carbon fixation
<input type="checkbox"/> Energy Efficiency	<input type="checkbox"/> Forestry	<input type="checkbox"/> Industry	<input type="checkbox"/> Renewable energy
<input type="checkbox"/> Transport	<input 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 checked="" type="checkbox"/> Economics and financial decision-making	<input checked="" type="checkbox"/> Governance and planning	<input checked="" type="checkbox"/> Community based
<input checked="" type="checkbox"/> Disaster risk reduction	<input checked="" type="checkbox"/> Ecosystems and biodiversity	<input checked="" type="checkbox"/> Gender	

Technical assistance requested (up to one page):

The overall objective of the technical assistance is to establish the Tanzania Climate Innovation Centre (TCIC) at COSTECH.

The following are anticipated group of activities:

Activity 1: Conduct Comprehensive Analysis on Climate Centres to Establish Best Practices:
This activity entails mapping of best practices on climate technology centres to act as reference on establishing the same in Tanzania. It will include the way similar centres are established, operationalized and sustained with evidence of feasible programs that can be domesticated. This goes along with studying the Tanzania network of innovation centres and similar infrastructure that can support or can be linked to the climate centre as well as supportive policy and regulatory landscape.

Activity 2: Setting up the Climate Innovation Centre within COSTECH' Buni Innovation Hub:
This means setting up the centre by designing office set up; needed infrastructure and layout, needed staffing and skills set; operation set up within COSTECH and existing Buni hub and all that will be identified in collaboration with COSTECH.

Activity 3: Establish Centre's Organization System and Infrastructure:
The TA will support establishing the needed centre's organization system and acquisition of working tools and equipment as CTCN's rules. It will involve preparation of relevant administrative documents; operating procedures; and relevant technical documents such as strategic plan, activity plans, forms, templates, etc; as well as sustainability and business plans. The infrastructure to be developed will further include development of the centre's website and a digital platform that will host administrative

information and procedures for users as well as digitized information on various undertakings and projects.

Activity 4: Conduct Capacity Building to Identified Staff of the Centre:

This entails capacitating designated staff for the centre to start operations while establishing future staff needs and recruitment plans. Training will focus on how to sustainably serve the community of climate technologists and innovators and create value to attract more partners and projects. Project and proposal formulation will form key parts of training content as well as explore energy related activities such as overview of energy audits, renewable energy technologies, energy efficiencies, and various national, regional and international protocols on climate change.

Activity 5: Coordinate and Support at Two Site Visits to Similar Centres:

To enhance a learn-by-doing environment to designated staff of the centre, the TA seeks to support at least two study tours to countries identified as having successful climate innovation centres or with similar arrangements. We are aware of the Kenya Climate Innovation Centre (KCIC) in Nairobi but others can be explored too to have a good picture.

Activity 7: Conduct Stakeholders Workshop and Centre Inauguration

To make sure that all identified players are involved in the design and development of the centre, consultative workshops will be organized to gather stakeholders' expectations and contributions on how better the centre can be set up and be beneficial to all. Then the centre will officially be launched by inviting one of key national figures at the inauguration ceremony.

By accomplishing the above activities, the following products are anticipated:

- A comprehensive analysis report on climate innovation centres;
- Tanzania Climate Innovation Centre (TCIC) established at COSTECH with documented set-up;
- Centre's Administrative Documents: Administrative documents; operating procedures;
- Centre's Technical Working Documents: strategic plan, activity plans, forms, templates, sustainability plan, business plan and similar;
- Centre's website and a digital platform;
- Centre's skilled staff;
- ICT equipment;
- Capacity building reports and materials;
- Workshops reports; and
- Inauguration reports and photo galleries.

Expected timeframe:

The TA timeframe is proposed to be 12 months

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

Throughout the implementation of this TA, gender and youth aspects will be highly integrated as they form part of key stakeholders of the climate and innovation ecosystem in Tanzania. During the comprehensive analysis and best practices review, more insights will be gathered on experiences from other places on adequately integrating gender issues. The centre is anticipated to leverage on the existing Buni hub staff who are all females to attract more youth girls to work with the centre and participate in the programs.

COSTECH already has a dedicated program to support young female innovators by giving them capacity building, coaching and mentorship as well as technical and financial assistance to pursue their innovation projects. This type of programs and many more in Tanzania will form a good basis to promote climate technologies and innovation from youth and gender aspects.

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	Project coordination
Tanzania Commission for Science and Technology	Project proponent and host of the centre
Innovation spaces	Stakeholders to shape the operation of the centre during design and operation stages Providers of climate innovators
Universities and R&D institutions	Project key stakeholders and providers of climate innovations and technologies
Vice President's Office - Division of Environment	- National Designated Authority - Overseer of Nationally Determined Contributions
Ministry of Finance	- Budget Support - Tax and non-tax incentives for climate business support
Ministry of Education, Science and Technology	Budget allocation and political support
All other Ministries: - Ministry of Energy - Ministry of Industry and Trade - Ministry of Transport - Ministry of Livestock and Fishery - Ministry of Works - Ministry of Tourism and Natural Resources - and all	- Policy making, shaping and overseeing. - Decision making - Political support - Climate goals setting and direction
NGOs, industry and private sector	- Climate Technology providers - Stakeholders consultations

	<ul style="list-style-type: none"> -Climate Technology uptakers -Climate technologies advocacy
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<p>Alignment with national priorities (up to 2000 characters including spaces):</p> <p>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.</p>	
Reference document (please include date of document)	Extract (please include chapter, page number, etc.).
Nationally Determined Contribution (NDC)	<p>Tanzania has committed to embark on a climate resilient development pathway. In doing so, it will reduce the impacts of climate change variability and associated extremes such as droughts and floods, which have long-term implications to all productive sectors and ecosystems, particularly the agricultural sector. The adaptation measures are expected to significantly reduce the risks of climate related disasters compared to the current situation (NDC 2021, page 7, section 4.1).</p> <p>Also Tanzania has committed to reduce greenhouse gas emissions economy-wide between 30 - 35% relative to the Business-As-Usual (BAU) scenario by 2030, whereby about 138 - 153 Million tons of Carbon dioxide equivalent (MtCO₂e)-gross emissions is expected to be reduced, depending on the baseline efficiency improvements, consistent with its sustainable development agenda ((NDC 2021, page 13, section 4.2).</p>
National Innovation Framework 2023	The framework highlighted that, there is a need to continue investing in innovation spaces, maker spaces, research labs, co-working spaces, design labs, fabrication labs, and incubators. That is because Innovation spaces play a crucial role in supporting innovators with the resources required to accelerate their solutions to the market. Investment in innovation spaces will strengthen and encourage more innovations to emerge from urban innovation systems.
The Science and Technology Policy, 1996	The policy shows the need for availability of facilities for technologies, innovation and science such as workshop spaces, equipment and machinery. Further, the facilities should determine the output of the research and development which resulted to be used or applied by the communities. Therefore, the policy indicated that having the workshops or spaces will be an essential indicator for successful technology activities.
Research and Development Policy, 2010	The policy calls for infrastructure that enable translation of research results into interventions and products. This includes establishment of innovation and technology centres that support incubation and mentorship services.

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

The request was developed by COSTECH which is the NDE. COSTECH is mandated to facilitate, coordinate and promote the national innovation system. Internal meetings were held to decide the place and space that the climate innovation centre will be hosted.

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.

Documents:

1. Nationally Determined Contribution (NDC)
2. National Innovation Framework 2023
3. The Science and Technology Policy, 1996
4. Research and Development Policy, 2010

- Please indicate if this request has been developed with the support of the CTCN Request Incubator.

The request did not get support from 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.

² Please see:

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

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.

NDA name:

Date:

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:

NDE name: Dr. Gerald Majella Kafuku

Date: March 04th 2025

Signature: 

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.