

Please fill in the form in the grey spaces, by following the instructions in italic.

Requesting country:	<i>Tanzania</i>
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Request title:	<i>Enabling community of Pwani, Lindi and Mtwara access efficient and low émission biomass stoves for the household and institutional cooking</i>
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Contact information:		
<i>{Please fill in the table below with the requested information. The request proponent is the organization that the request originates from, if different from the National Designated Entity (NDE).}</i>		
	National Designated Entity	Request Applicant
Contact person:	<i>Dr. Flora Tibazarwa</i>	<i>Eng. Matthew Matimbwi</i>
Position:	<i>Director of Life and Physical Sciences</i>	<i>Executive Secretary</i>
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Technology Needs Assessment (TNA):
<i>{Select one of the three boxes below:}</i>
<input type="checkbox"/> <i>The requesting country has conducted a TNA in the technologies for the climate change adaptation and mitigation from _____ (please insert date of TNA completion)</i>
<input checked="" type="checkbox"/> <i>The requesting country is currently conducting a TNA</i>
<input type="checkbox"/> <i>The requesting country has never conducted a TNA</i>
<i>{If the requesting country has completed a TNA, please indicate what climate technology priority this request directly relates to. Please indicate reference in TNA/TAP/Project Ideas.}</i>

CTCN Request Incubator Programme:
<i>{Please indicate if this request was developed with support from the Request Incubator Programme:}</i>
<input checked="" type="checkbox"/> <i>Yes</i>
<input type="checkbox"/> <i>No</i>

Geographical focus:

{Select below the most relevant geographical level for this request:}

- Community-based
 Sub-national
 National
 Multi-country

{If the request is related to the sub-national or multi-country level, please indicate here the areas concerned (provinces, states, countries, regions, etc.)}

The request covers coastal regions of Pwani, Lindi and Mtwara

Theme:

{Select below the most relevant theme(s) for this request:}

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

Sectors:

{Please indicate here the main sectors related to the request. e.g. energy, industry, transport, waste, agriculture/fisheries, forestry, water, ecosystem/biodiversity, coastal zones, health, education, infrastructure/human settlement, tourism, businesses, early warning/disaster reduction, institutional design and mandates, cross-sectorial}

Energy, forestry, coastal zone

Problem statement (up to one page):

{Please describe here the difficulties and specific gaps of the country in relation to climate change, for which the country is seeking support from the CTCN. Please only provide information directly relevant to this request, and that justifies the need for CTCN technical assistance.}

The proposal intends to provide an intervention to the depleting forest cover in the coastal zones of Tanzania specifically the regions of Pwani, Lindi and Mtwara.

Households, enterprises and institutions in the regions of Pwani, Lindi and Mtwara all use charcoal and fuel wood for cooking. The rate of biomass harvested from the forest to produce domestic energy is higher than the natural regeneration. In year 2012 the available wood that could be harvested sustainably was 46 million m³ per annum, however the consumption of the wood was 87.2 million m³ that created an annual wood deficit of 41.2 million m³. To meet the deficit, illegal harvesting targets protected areas [Biomass Energy Strategy Tanzania, Tanzania Ministry of Energy and Minerals, April 2014].

The status of household energy sources for domestic use in the three regions are as follows: Pwani: generator (0.2%), industrial gas and bio gas (0.5%), kerosene (0.5%), coal (0.2%), charcoal (31.6%), fuel wood (66.7%) and wood/farm residuals (0.2%) Lindi: industrial gas and bio gas (0.2%), kerosene (1%), coal (0.2%), charcoal (3.2%), and fuel wood (95.3%) Mtwara: industrial gas and bio gas (0.2%), kerosene (2.5%), charcoal (0.2%), fuel wood (96.8%) and animal dung (0.2%). From the statistics provided it is evident that fuel wood a directly product from forests is the main source of energy for cooking followed by the charcoal [Baseline survey support for energy access and use in Tanzania

Mainland, Tanzania Rural Energy Agency, 2011]

A study conducted in Mtwara region found that on average the rural household consumption of fuel wood is 67Kg/month. Households in urban and semi-urban areas consume charcoal at the rate of 200Kg/month. 64% of the primary schools and 23% of the secondary school provide food to their students and these use fuel wood at an estimated consumption rate of 0.6kg/student/day [Market intelligence on improved cook stoves in Mtwara region, Improved Cook Stove (ICS) Taskforce Tanzania, November 2013].

The technology that is most used for cooking in households and institutions is the three stones stove. This is low in energy efficiency and dirty in terms of green house gases emission. The users have minimal knowledge and awareness of alternative stoves [Market intelligence on ICS in Mtwara region, ICS Taskforce Tanzania, November 2013].

The use of inefficient and effluent producing biomass cooking stoves resulting to the household air pollution has affected the health of many Tanzanians living in rural areas. In 2012, a total of 20,353 deaths, where 12,012 were children, registered to be caused by household air pollution attributed to unsafe cooking using biomass fuels [SADC Renewable Energy and Energy Efficiency Status Report 2015, REN21]

In Pwani, Lindi and Mtwara regions, rural communities produce charcoal and sell it to the city of Dar es Salaam, very little is used locally. Charcoal production is considered an important potential source of economic activity for the communities of Pwani, Lindi and Mtwara and with the demand in urban areas such as the city of Dar es Salaam the rate of deforestation is unlikely to decrease. Interventions that address sustainable production of charcoal and cost-efficient use of both charcoal and fuel wood efficiently will serve to provide solutions that improve rural communities health status and reduces unsustainable use of biomass that contributes to climate change impacts in Tanzania.

This request seeks support to promote and implement interventions that will enable households and institutions use efficient and low biomass fuel consumption stoves, and promote sustainable wood charcoal production.

The interventions will be realized through activities of:

- Raising awareness of stakeholders in the charcoal and fuel wood value chain on the impacts of the climate change and opportunities to reduce these through the use of improved biomass stoves
- Promoting the marketing of the biomass stoves through recruiting and training fuel efficient and clean stove producers, providing them with technical and enterprise skills, and
- Training wood charcoal producers how to sustainably produce wood charcoal for efficient use

Past and ongoing efforts (up to half a page):

{Please describe here past and on-going processes, projects and initiatives implemented in the country to tackle the difficulties and gaps explained above. Explain why CTCN technical assistance is needed to complement these efforts, and how the assistance can link or build on this previous work.}

Relevant initiatives that have been implemented in Tanzania are as narrated below.

Studies on ICS

Studies were conducted by Improved Cook Stove Taskforce Tanzania, in the year 2013 on various subjects in understanding the sector. The studies that were conducted are as listed below;

- Market Intelligence on ICS in Mtwara Region,
- ICS Assessment and Testing,
- ICS in Manyara and Arusha Regions, and
- Analysis of Effectiveness of National Policies, Strategies and Priorities on Biomass ICS Sub-

sector

Country Action Plan for Clean Cook Stoves and Fuels

ICS Task Force Tanzania in collaboration with Clean Cook Stoves and Fuels Alliance of Tanzania developed A Country Action Plan for Clean Cook Stoves and Fuels. The country action plan was concluded in July 2014.

Biomass Energy Strategy Tanzania

Tanzania Ministry of Energy and Minerals developed the national strategy for biomass energy, in the year 2014. The process involved public and private stakeholders.

Training of biomass stoves producers

Tanzania Renewable Energy Association (TAREA) in collaboration with COSTECH conducted a five-day hand on training to biomass stove producers (at artisan level) on production of clean and efficient biomass stoves. The training was conducted to the stove producers of Lindi and Mtwara regions. 12 biomass stove producers benefited from the training program.

Promotion of the sustainable charcoal use

Tanzania Forestry Conservation Group (TFCG) promotes the use of sustainable charcoal in the district of Kilosa, Morogoro region in Tanzania. TFCG promotes the use of sustainable charcoal through training of charcoal producers in the improved charcoal production and marketing.

Mtandao wa Jamii wa Usimamizi wa Misitu Tanzania (MJUMITA) promotes sustainable use of forestry through sustainable harvesting of trees, carbon credits, eco-tourism and other environmental and ecological benefit streams. MJUMITA trains village groups on the sustainable practices of producing wood charcoal. MJUMITA supports more than 400 village groups.

The technical assistance that is requested from CTCN is to support scale up of the activities that have been already started in the Pwani region and initiate the new interventions. The works to be implemented with support of the technical support from CTCN will base on the results of the studies conducted by the ICS Task Force Tanzania and Biomass Energy Strategy Tanzania.

Assistance requested (up to one page):

{Please describe here the scope and nature of the technical assistance requested from the CTCN and how this could help address the problem stated above and add value vis-à-vis the past and on-going efforts. Please note that the CTCN facilitates technical assistance and is not a project financing mechanism.}

The assistance requested is for the provision of the technical assistance on the preparation of the intervention measures, guidance on appropriate relevant technologies and their implementation.

The assistance requested would contribute to the scaling down of the core problem of forestry destruction and degradation that contributes to climate change. It is anticipated with the interventions, the amount of fuel wood and charcoal utilized will be kept at sustainable levels including raw materials used for the production of the wood charcoal.

Expected benefits (up to half a page):

{Please outline here the medium and long-term impacts that will result from the CTCN technical assistance, including how the assistance will contribute to mitigate and/or adapt to climate change.}

The medium impacts resulting from the technical assistance from CTCN will be;

- Established marketing of efficient and clean household and institutions biomass stoves in the regions of Pwani, Lindi and Mtwara

- Adopted resource efficient wood charcoal production technologies

The long term impacts resulting from the technical assistance from the CTCN in delivering the interventions will be:

- Reduced rate of destruction and degradation of forests due to unsustainable exploitation for biomass energy
- Reduced potential impacts of climate change
- Improved economies at households and institutions dependent on biomass as the main form of energy
- Reduced number of deaths attributed to air pollution from use of fuel inefficient cookstoves

Post-technical assistance plans (*up to half a page*):

{Please describe here how the results of the CTCN technical assistance will be concretely used by the applicant and national stakeholders, to pursue their efforts of resolving the problems stated above after the completion of the CTCN intervention (list specific follow-up actions that will be undertaken).}

After the CTCN technical assistance completion, the applicant and the national stakeholders will use the results for scaling the interventions in the other regions of the country that have similar need as will be identified during the planning of the future perspectives.

The applicant and stakeholders will continue following up the sustainability of the results in the project area through continuous monitoring workshops and track of the performances of the stove entrepreneurs. The applicants will also conduct the follow up study to understand the use of the stoves and opinion of end users. The study will be used to improve marketing if it will be necessary.

Key stakeholders:

{Please list in the table below the main stakeholders who will be involved in the implementation of the requested CTCN technical assistance, and what their role will be in supporting the assistance (for example, government agencies and ministries, academic institutions and universities, private sector, community organizations, civil society, etc.). Please indicate what organization(s) will be the main/lead counterpart(s) of CTCN experts at national level, in addition to the NDE.}

Stakeholder	Role to support the implementation of the assistance
Tanzania Commission for Science and Technology (COSTECH)	Innovation, access to technology and coordination of implementation, monitoring and evaluation of impact, up scaling, NDE
Tanzania Renewable Energy Association (TAREA)	Field implementation, monitoring and information dissemination, lead counterpart
Ministry of Energy and Minerals	Provision of policy and guidelines on the biomass energy
Ministry of Natural Resource and Tourism	Provision of the policy and guidelines on the forestry
Small Industries Development Organization	Facility for training of stove producers
Tanzania Revenue Authority	Technology incentives
Tanzania Bureau of Standards	Ensuring quality of the stoves and fuels; air quality

	standards
SNV Netherlands	Awareness raising and studies
Vice President Office	Provision of the policy and guidelines on standards for environmental air pollution
Parliament of Tanzania	Institution of the biomass regulations
Local Government Authorities	Awareness raising and facilitation of local adaptation
Tanzania Forest Conservation Group with MJUMITA -	NGO - Identification of TNA, implementation partner for sustainable charcoal production
Kiwi&Lausten Company	Training on the manufacturing of the energy efficient and clean biomass stoves
Entrepreneurs	Distribution of the stove technologies, supply of the biomass fuels
End users	Adaptation of the energy efficient and clean stoves and fuels

Alignment with national priorities (up to half a page):

{Please demonstrate here that the technical assistance requested is consistent with documented national priorities (examples of relevant national priorities include: national development plans, poverty reduction plans, technology needs assessments (TNAs), LEDS, NAMAs, TAPs, NAPs, sectorial strategies and plans, etc.). For each document mentioned, please indicate where the priorities specifically relevant to this request can be found (chapter, page number, etc.).}

Underneath are the documents that present the national priorities related to this application

Biomass Energy Strategy Tanzania (BEST) April, 2014

The document provides guidelines on meeting the demand and supply of the biomass energy on the sustainable manner. The statements are given in chapter 5, pages 31-32.

Tanzania National Energy Policy, 2003

The document provides policy statements that provide guidelines on the supply and demand of the biomass energy. The demand policy statements are provided in the Chapter 3.1.4 page 15 while policy statements on the supply are presented in the chapter 3.2.4 page 24.

National Strategy for Growth and Reduction of Poverty II

The document provides operational target on the improving the regeneration of the forestry. The target is stated under operational target Viii, page 41

Tanzania National Environment Policy, 1997

The technical assistance from CTCN will contribute to the realization of the policy objectives of the National Environment Policy that aim at reducing environment degradation in use of the energy [Chapter 52, page 18].

National Forestry Policy, 1998

The technical assistance will contribute to the implementation of the strategy of sustainable harvesting of the forest [Chapter 5, page 55].

National Science and Technology Policy, 1996

The technical assistance will contribute to the implementation of arresting wood depletion [Chapter 33, page 20].

Development of the request (up to half a page):

{Please explain here 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.)}

The process for request generation was initiated by the NDE. The following process was followed from idea stage to approval of the request by NDE before submitting to the CTCN:

1. Vice presidents office initiated the TNA process through which most venerable sectors on climate change were identified
2. Both TNA and CTCN NDEs prepared a joint workshop of the key sectors Identified at the national level (in which about 20 public and private institutions were represented by their experts in the areas of discussions during the workshop).
3. Major sectors Identified as most venerable to climate change were; Energy, Water and Forests Sector
4. Three groups of experts in each of those areas were formed and tasked to come up with at least three key Ideas/project which can be used to generate requests, and those ideas/projects went through voting process and ended up with only three main ideas/projects for requests generations, two from energy sector and one from water sector.
5. Two of the participants of the workshop took the proposed projects and wrote the requests through stakeholders consultation under the guidance of NDE
6. Applicants submitted the requests to the NDE, which screened the request through a developed excel tool to see that the requests meeting the following basic criteria:
 - That it supports national policies and strategic plans
 - That it meets the national strategic objectives
 - It is either mitigation or/and adaptation
 - It meets the innovation value chain: whether it is idea demand, basic research, technology deployment or technology diffusion and so on
 - Key stakeholders were consulted (Renewable energy regulators, policy makers, private enterprises, non-governmental organisations, ministerial departments and agencies and local government authorities)

Expected timeframe:

{Please propose here a duration period for the assistance requested.}

The expected time frame will be **three years**

Background documents:

{Please list here relevant documents that will help the CTCN understand the context of the request and national priorities. For each document, provide web links if available, to attach to the submission form while submitting the request. Please note that all documents listed/provided should be mentioned in this request in the relevant question(s), and that their linkages with the request should be clearly indicated.}

Biomass Energy Strategy Tanzania (BEST), 2014

[http://www.tfcg.org/pdf/BEST%20Biomass%20Energy%20Strategy%20Tanzania_Final%20Version%](http://www.tfcg.org/pdf/BEST%20Biomass%20Energy%20Strategy%20Tanzania_Final%20Version%202014.pdf)

[20April%202014.pdf](#)

Tanzania National Energy Policy, 2003 <http://www.tzonline.org/pdf/theenergypolicyoftanzania.pdf>

Tanzania National Environment Policy, 1997

<http://www.tzonline.org/pdf/nationalenvironmentalpolicy.pdf>

National Strategy for Growth and Reduction of Poverty II

<http://siteresources.worldbank.org/INTPRS1/Resources/Tanzania-PRSP-Dec2010.pdf>

National Environmental Policy <http://www.tzonline.org/pdf/nationalenvironmentalpolicy.pdf>

National Forestry Policy <http://www.tzonline.org/pdf/nationalforestpolicy.pdf>

National Science and Technology Policy <http://www.tzonline.org/pdf/thenationalscience.pdf>

SADC Renewable Energy and Energy Efficiency Status Report 2015, REN21

<http://www.ren21.net/status-of-renewables/regional-status-reports/>

Monitoring and impact of the assistance:

{Read carefully and tick the boxes below.}

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

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: Flora Ismail Tibazarwa

Date: 24th November 2015

Signature:



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