CTCN Fast Technical Assistance (FTA)

Request Submission Form

Presentation of the Fast Technical Assistance

The Fast Technical Assistance (FTA) is the Climate Technology Centre & Network (CTCN) short time response to requests referring to technology prioritisation, endogenous technologies assessment, policies and measures that are immediate priorities for the requesting country. FTA has duration **up to 2 months** and a total value typically **up to USD 15,000** (it may include a scoping mission, only if strictly necessary). The FTA is implemented by means of an international expert.

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

Requesting country:	
Fast Request title:	Please reflect the objective of the FTA in the title (maximum 200 characters). Enhancing access to solar energy for women-owned small businesses and SMEs in the agri-food sector in Senegal, by examining the feasibility of manufacturing equipment (solar mills) locally and setting up a local marketing and maintenance network.
NDE:	Please add name of organisation, name of individual, position, email and address. Centre for Research and Studies on Renewable Energy (CERER) Mr. Issakha Youm +221 33 825 04 43 iyoum2@yahoo.fr Route du Service Géographique (HB- 87), Rue HB-478, Hann Bel-Air BP 476 Dakar, Senegal
Request Applicant:	Please add name of organisation, contact person, position, email and address of the organisation requesting assistance from the CTCN. Enda Graf Sahel, Cité Millionnaire, BP 13069, Dakar, Senegal Responsible person: Emmanuel Seyni Ndione, President Contact person: Fatou Ndoye, Coordinator, SADA Unit, Fatou.ndoye@endagrafsahel.org, fatouassndoye2@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 Dakar
- ☐ National

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

Sectors:

Please indicate the main sectors related to the request:

Coastal zones	Early Warning and Environmental Assessment	Human Health	Infrastructure and Urban Planning
Marine and Fisheries	Water	Agriculture	Carbon fixation
Energy Efficiency	Forestry	Industry	**Renewable energy**
☐ Transport	☐ Waste management		

CONTEXT OF THE ASSIGNMENT (up to half page):

This section should present the climate problem and the national context within which it takes places (i.e. efforts to tackle it, climate policies and priorities etc). It should end with an explanation of the specific questions and issue the CTCN expert would have to address.

Please list or attach relevant documents that will help the CTCN analyse the context of this request.

In Senegal, as in most African countries, the majority of the labour force works in the primary sector (agriculture, fisheries and livestock farming). These sectors, which form the core of the country's economy, are dominated by family-owned businesses and involve widespread use of wood fuel, which is associated with high emissions and adverse health impacts, especially for women.

The effects of climate change – recurring droughts, soil salinity and floods – are being felt keenly in the agricultural sector and preventing vulnerable population groups from achieving food security. Much of the equipment used in the sector is in a state of disrepair and little agricultural produce is processed.

Government measures and policies on economic and social development, especially in the rural sector, place a strong emphasis on training for youth and women in agriculture. This focus is a common theme of the country's various policy frameworks. These are now condensed and summarized in the 2014 Emerging Senegal Plan (PSE), which considers agriculture, youth and women to be the driving forces behind the country's economic development.

Senegal's first Nationally Determined Contribution (NDC) also addresses the rural energy transition and the shift to renewables in refrigeration and food processing.

In spite of these policies, achieving the food security and job creation targets assigned to this sector remains a challenge, in part due to a lack of access to appropriate, affordable and climate-resilient energy equipment.

The aim of the proposed project is to improve processing methods, with a particular focus on milling – the dominant processing technique used by small businesses and SMEs in the agri-food sector.

The number of micro-businesses and small businesses is growing rapidly in Senegal, across both urban and rural areas. Most of these new businesses are involved in food processing. Processing (milling) of cereals (millet and maize) is a dominant activity practised by a large number of women, who produce a wide variety of products such as couscous, meal, grains and flour.

However, these businesses struggle to access the technologies they need to reduce their carbon footprint and improve the quality of their products so they can sell them through more lucrative channels (supermarkets, exports). Milling, one of the most common processing methods, is generally done using machines that run on diesel fuel or electricity generated at fossil fuel power stations, which are expensive and polluting energy sources.

The purpose of this technical assistance request is therefore to help micro-businesses and small businesses access clean, affordable, locally manufactured energy technologies, and to set up a system in which equipment is monitored and maintained by women and youth.

Alignment with national priorities:

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.

The requested technical assistance will involve examining the desirability and feasibility of

local manufacturing (or assembly) of appropriate solar equipment in order to reduce the carbon footprint of small businesses and SMEs in the agri-food sector, and to improve the organoleptic quality of the products these businesses produce. The technical assistance will make a significant contribution to:

- the Emerging Senegal Plan (PSE), which considers agriculture a priority and one of the driving forces behind the country's development, by making small agri-food businesses more profitable and sustainable (by reducing their dependence on fossil fuel energy sources)
- the National Adaptation Programme of Action (NAPA), which seeks to address the rural energy transition and aims to reduce emissions from fossil fuel consumption, diversify energy sources and enact a shift to food processing equipment powered by renewables.

The technical assistance is consistent with Senegal's adaptation and mitigation plans insofar as it will help to identify ways to reduce the use of fossil fuels while raising the incomes of women-owned small agri-food businesses.

Reference document (please include date of document)	**Extract:** Nationally Determined Contribution (NDC), Ministry of Environment and Sustainable Development, September 2015, pages 20, 22
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.).* • Promotion of renewable energy: the NDC sets a target of total installed solar energy capacity of 235 MW. • Manufacturing: in line with the Emerging Senegal Plan, the NDC emphasises the development of industrial parks and manufacturing facilities with a view to improving agricultural value chains. • Shift to food processing equipment powered by renewables.
Technology Needs Assessment	Technology Needs Assessment, Market Research, Business Plan
National Adaptation Plans	
Nationally Appropriate Mitigation Actions	
Add others here as relevant	

OBJECTIVE OF THE FTA (up to 5,000 characters):

This section should present the overall objective of the assignment, including the result expected by the end of the Fast Technical Assistance

Examine the desirability and feasibility of manufacturing solar milling equipment locally in order to widen access to such equipment for women-owned small businesses and SMEs

in the food processing sector.

The ultimate objective is to cut greenhouse gas emissions and build more climate-resilient communities by making beneficiary small businesses and SMEs more profitable and by creating jobs for women and youth in order to boost the local economy.

Result expected by the end of the FTA: the technical and economic feasibility of locally manufactured solar mills and grinders (an existing and functioning technology in other countries) has been examined, and clear recommendations have been made on the means and resources necessary for the manufacture, distribution, upkeep and maintenance of these solar systems in Senegal.

The technical assistance should therefore focus not only on solar milling technology, but also on what business models would enable women-owned small businesses to access the technology, as well as long-term maintenance arrangements.

SCOPE AND ACTIVITIES OF THE PROPOSED FTA (up to one page):

The FTA should clearly contribute to mitigation or adaptation to climate change as described in the context of the assignment.

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

- *Expected activities and deliverables*

Activity 1: **Technology Needs Assessment**
Conduct a detailed assessment of the milling technology needs of rural small businesses and SMEs, incorporating a gender dimension (analyse the barriers facing women-owned small businesses/SMEs in accessing solar food processing equipment)

Deliverable 1: Technology Needs Assessment

Activity 2: **Market research**

Review solar milling technologies in use worldwide and identify the appropriate technology for the Senegalese market

Deliverable 2: Technology review report, including recommendations for women-owned small agri-food businesses in Senegal

Activity 3: Technical feasibility study

Examine the technical feasibility of local manufacturing (or assembly) of solar mills, with assistance in identifying production sites

Deliverable 3: Technical feasibility study report

Activity 4: Economic feasibility study
Examine the economic feasibility of local manufacturing of solar mills, including assistance in drawing up a business plan, and including recommendations on partnership infrastructure

Deliverable 4: Economic feasibility study report and business plan

Activity 5: Evaluation and communication
The CTCN FTA Closure report will be completed at the end of the FTA (a template will be provided).
Deliverable 5: *FTA Closure report*

- *Expected use of the deliverables by the requesting organisation*

✓ Mobilizing women and youth for training on the manufacturing of solar mills
✓ Setting up a manufacturing/assembly facility managed by women and youth

GENERAL TIME SCHEDULE OF EXPERT AND ACTIVITY/DELIVERY PLAN:

The activities under this contract must be completed within a period of 3 months. Please note that the maximum time for the assignment is 2 months.
The time schedule below covers 12 weeks

Activity/Period	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12
1. Technology Needs Assessment												
2. Market research												
3. Technical feasibility study												
4. Economic feasibility study, business plan												
5. Evaluation and communication												
7. Monitoring and coordination												

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 once the assistance has been implemented, I will support the CTCN's efforts to measure the success and effects of the support provided, including its short-term, medium-term and long-term impacts in the requesting country.

Signature:

NDE name:	Issakha Youm
Date:	06/08/20
Signature:	

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