Request for Proposal

Invitation to Innovation Challenge on:

NON-BIOMASS BASED COOKING
IN UGANDAN REFUGEE SETTLEMENT

Introduction

Globally we face two immense global challenges that are woven together: climate change and the refugee crisis.

Never before have so many children, women and men fled their homes because of food insecurity as a result of drought, insecurity due to political instability, conflict over resources, etc. And never before have the man-made pressures on the climate been as great as they are now, showcased by extreme weather events and the global notion that we must both demand and deliver change.

The global refugee situation weaves into the social, economic and environmental effects on the thousands of refugees and the settlements that house them. From the separation of families and communities, the lack of resources and opportunities to provide for oneself, to the environmental impact of deforestation that comes with clearing new camp in a crisis situation. The reality is that we need to act now. Care has taken it upon themselves to be part of this conversation. To act and deliver change that will help push this narrative forward. One of the key settlements accessible to delivery this first line of change is Uganda.

Today Uganda hosts a total of **1,293,582 refugees and asylum seekers** as of 30th June 2019 (Uganda refugee response report 2019), primarily from South Sudan and DR Congo. The many refugees live in large settlements distributed in Uganda, and this creates a great pressure on the country, which is already struggling with poverty and climate change. In western Uganda, close to the border with DR Congo, lies the large settlement of Kyangwali. There are currently more than **90,000 refugees** living here and the settlement faces major challenges with both living conditions for residents and negative consequences for the environment.

In Kyangwali, natural resources are somewhat depleted, soil fertility vastly declining, seeds difficult to obtain, water restricting, and the natural forests depleted. All affecting **4 major challenge arenas: food, water, nature and homes**. However, opportunities for more long- lasting solutions are possible with the positive collaboration shown by the OPM Settlement Commandant and the UNHCR. Both parties are very supportive and appear open for considering new approaches in planning and management.

Many refugees grow small amounts of corn, sweet potatoes, banana and cassava but due to e.g. limited access to land the yield is extremely modest and can by no means cover the family's food needs let alone generate enough to sell produce on the local markets. Therefore, all families are continuously depended on food provided by aid organizations. Furthermore, the refertilizing potentials imbedded in the bio-waste generated in the camp are not exploited. At the same time there is at present no system in place for handling waste, and therefore no collection and exploitation of e.g. plastics and other non-organic waste types. This means that potentials for reuse and/ or recycling of materials are not utilized.

The nearby forest areas are under **extreme pressure**. The trees are being felled and used for firewood for primarily cooking, and it is estimated that by 2020, at least 40% of the surrounding forest will have disappeared. In Kyangwali the daily consumption of wood constitutes up to around 300 tons which are being logged in the surrounding forests. In addition to the massive negative effect on the natural forests the harvesting of firewood has it also constitutes negative social implications. Women and children are responsible for collecting the firewood, and besides the many hours they spend every day doing that, they are also somewhat vulnerable as they are at risk of being assaulted when they travel far from the settlement.

Cooking food and boiling water over open fires are often done inside the shelters, which is both dangerous in terms of risks of fires, but more so due to the danger related to inhaling toxic fumes from indoor wood and charcoal-burning cookstoves. It is estimated that more than 10,000 of annul mortalities attributable to air pollution in Uganda were a consequence of household air pollution (https://www.atcmask.com/blogs/blog/air-pollution-in-uganda).

Generally, there is a **lack of employment or income generating opportunities** in the settlement, and thus people have little prospect of creating a better life for themselves.

Additional background

Energy access is a critical and under-served need among the **131 million people** in need of humanitarian assistance today. Safe and accessible fuel is needed to cook the dry foodstuffs provided by humanitarian agencies and reduce the exposure of women and girls to the risk of gender-based violence during firewood collection.

In the absence of adequate shelter, energy is needed to maintain acceptable temperatures. Electricity is needed for community services such as public lighting, water pumping and treatment, mobile phone charging, cooling of medicine and vaccines, and powering health clinics. Simply put, energy access impacts food security, nutrition, health, protection, shelter, telecommunications, and other key aid sectors.

However, current energy practices in situations of displacement are often insufficient, inefficient, unsafe, expensive for displaced people, and harmful to the surrounding environment.

An estimated 80% of refugees and displaced people living in camps and settlements are cooking with biomass fuels such as firewood and charcoal, and 90% have no access to electricity.

Current practices in electricity production are also costly for implementers. A recent study estimates that around 5% humanitarian agencies' expenditure goes to diesel, petrol, and associated costs.

In addition to the energy used for cooking access to electricity is increasingly becoming a vital need for people in refugee and host community settlements. Mobile phones have become an integral and therefore vital tool in the monetary everyday life, and charging the phones is therefore a necessity. People who have been able to purchase small solar-powered charging devices are besides charging their own phones also establishing small business charging other people's mobile phones. Another used of electricity is powering small rechargeable LED-based lamps, which are used for lighting up homes and to also to increase safety when moving around outside after dark.

The innovation challenge:

This project seeks to develop / introduce a solution, by which cooking is enabled without the use of bio-based material, in such a way that it is economically viable for refugees to purchase. The solution(s) and implementation process should target both practical and cultural aspects of cooking. The solution(s) should be scaled and proportioned for use in a community cooking center where individuals cook their own food and have the technical ability to work in a school kitchen setup, as well as be adaptable to fit in an individual household setup.

Expected effects and prerequisites of the solution(s)

- Dramatically reduce deforestation and local air pollution
  The solution and imbedded activities should have clear, obvious, demonstrable and measurable positive effect on reducing deforestation and on reducing mortality rate due to indoor pollution.

- Renewable and accessible energy
  The solution and imbedded activities should be based on renewable and fiscally accessible energy production and storage and create a surplus of energy to be used for lights and charging phones and rechargeable lamps.

- Community - and school - kitchen: The solution(s) should have the technical ability to and be proportioned for use in a community cooking setting where individuals cook their own food, or the food is cooked for commercial purposes, as well as in a school kitchen setup. It should take existing cultural aspects of cooking and communities into consideration.

- Climate positive: The activity should have clear, obvious, demonstrable and measurable positive effect on climate impact linked to deforestation.

- Creates income and employment: The solution(s) should create income and employment for refugees and host community through reducing expenditures, generating income and/or by creating salaried employment. Benefits should be aimed primarily at women, children and youth.

- Creation of sustainable business: The activity must have a clear business case, showing how it will develop into a durable, thriving business. The business should include local employment or other positive local livelihoods effects. Part of the business case should be clear identification of a local market, either existing or likely to be developed. In addition, the proposed solutions for business set up should include plans for future maintenance and repair, and aspects related to e.g. reuse and recycling of materials.

- The solution should be safe to operate and use and should take into consideration that small children are often present in a cooking situation.

- Reduces risks for women and children: The activity should preferably demonstrate how it will lead to reduced risks and/or improved social conditions for women and children.

- Increases joint activity and accept between host community and refugees: The tests of the solutions should illustrate that it benefits both the refugee and host community.

CAMP+

The innovation challenge is anchored in CAREs initiative of creating the world's first sustainable refugee settlement, called CAMP+. We call the initiative CAMP+ because the project is aimed at turning minus to plus. Water and food is managed and produced in a self-sufficient manner, waste becomes new materials

and products, lack of necessities stimulates production and job creation, and human misfortune is instead leading to new communities arising, and dignified lives. Therefore CAMP +.

CARE has in-depth knowledge and understanding of the challenges that affect both humans and the environment and other are experts when it comes to innovative and technical solutions.

When the right competencies contribute with individual expertise and CARE secure that CAMP+ is being developed as a unified ecosystem, it ensures that the best solutions, in the specific local context, are chosen, and that the synergies between the different solutions are utilized. In addition, throughout the development and realization of the project, the connection and co-operation with the surrounding community will be in focus.

Pilot collaboration

The pilot will be conducted in Kavule, a subsection of the Kyangwali refugee settlement in western Uganda. Kavule is home to around 10.955 people. 55% of the population is below the age of 18 and 63% are female. They primarily derive from DRC.

CARE has a strong presence in Uganda, which also includes an office in the settlement and working relationships with the settlement authorities and other key stakeholders. Additional technical staff are based in our office in Kampala, which includes staff capacities related to private sector engagement, gender and women's empowerment, humanitarian response, M/E, and natural resources management. CARE will hence be able to provide on the ground support related to e.g. community involvement, collaboration with settlement authorities and local partners, and monitoring. The role of CARE and local partners during pilot testing will be agreed with the vendor during the planning and design phase.

Process and timing

Date	Action
11th October	Market dialogue session (virtual conference call)
14th October	Market dialogue session in Kampala, Uganda
1st November	Request for proposal published
18th November	Deadline for vendors to ask clarifying questions
6th December	Deadline for submission of proposal
January 2020	Design sprint with vendor(s) and key project stakeholders
February 2020	Develop pilot model
March 2020	Initiate field test in Uganda
June 2020 (expected)	Adjustments based on first test
October 2020	Evaluation and plan for commercialization

Submitting proposal

Proposal (RFP) are to be uploaded to EU-supply by December 6th 2019.

Additional questions can be submitted to Morten Fauerby Thomsen (mthomsen@care.dk) by November 18th, 2019 the latest.

Contents of the Proposal

The proposal should include the following two parts.

PART A - Technical (max 10 pages in PDF)

The technical part of the proposal should be in PDF format and should include the following sections:

1. **Executive Summary** (2 pages max). Provide a brief overview of your understanding of the problem, summary of your approach to deliver the solution per the requirements, and financial summary.

2. Description of the proposed **approach, methodology, solution** to meet the requirements and processes described in the *Expected Effects of the Solution(s)* section. Summarize what is already developed or out-of-the-box in your solution, and which ones will need to be developed or customized. Please include list of expected sub suppliers in the manufacturing process.

3. Illustrate and briefly describe the **Technical Architecture design**. Provide a graphical representation of the technical architecture design and user journey.

4. Describe the **renewable energy generation** and storage capabilities, as well as additional functionality enabling charging of lamps and phones.

5. Describe the approach for **scalability** of your solution assuming successful pilot implementation. Describe how your solution could be integrated in other settings and adapted to fit under different circumstances.

6. Please describe your business model and commercial ways of working, and potential costs to beneficiaries, and include related demographical and gender considerations.

7. **Project team**. Describe the members of the project team / consortia, roles, and include their CV's. Describe the work location, availability and percent dedication of the proposed team members to our project.

8. **High-level work plan** with breakdown of activities, time schedule, and outputs that are clearly linked to the information in the *Timeline and Milestones* section.

PART B - Financial (max 2 pages in PDF)

The financial part of the proposal shall be structured in the following sections and described in detail what is included in each of the costs and assumptions taken:

1. One-time implementation / setup cost of the full solution based on requirements
    a. Itemize and provide details of the costs (state assumptions)
    b. Describe if a development or staging (pre-production) environment is included with the production environment
2. Recurring monthly costs (e.g. license fee, hosting, support & maintenance, minor enhancements, etc.)
3. Equipment specific costs.
4. Training (online training, in person train the trainers, and materials that will be produced)
5. Daily rates for consulting or custom development
6. Travel costs, if any

Visual examples of cooking in the settlement

School kitchen

Lost forest