

GERMAN DEVELOPMENT COOPERATION -GESELLSCHAFT FUER INTERNATIONALE ZUSAMMENARBEIT (GIZ)

CATEGORY:	Donor and Development actor
CSA PROJECT:	Water & Energy for Food (WE4F): An international initiative that aims to scale up climate-friendly and resource-efficient innovations in the food and agriculture sector
SCALE:	National, Community (actions that are limited to sub counties and wards)
LOCATION (COUNTY):	Active across East Africa, focusing on partnerships with the private sector. Some specific activities with communities in Marsabit, Central and Western Kenya
PERIOD OF THE PROJECT:	2020-2023
GRANT SIZE OF THE PROJECT:	EUR 12 Million for East Africa (of which around EUR 5.8M for Kenya)



SUMMARY OF ACTIONS

Key activities WE4F implementing on CSA

WE4F works closely with the private sector to promote and scale climate-friendly and resource-efficient innovations. Innovations may include technologies (such as weather forecast apps, solar cooling technologies, hydroponic farming approaches), business and finance models (such as pay-as-you go models for solar pumping, leasing models for e-motorbikes in rural areas) and new modes of cooperation (e.g. sharing economy model, which favours access to technologies and services over ownership).

- 1) WE4F implements a) an Innovation Call to which SMEs working on the water-energy-food nexus can apply for financial and business development support, and b) partnerships with the private sector to make operations more resource efficient or to pioneer innovative technologies and service models.
- 2) The project also supports the set-up of demonstration sites, trainings of small-holder farmers (e.g. climate-smart agricultural practices) and other value chain actors (e.g. energy efficiency in tea factories) and other sensitisation activities together with SMEs, universities and NGOs to take further steps towards the uptake of innovations.
 - Example: Integrated solar-powered reverse osmosis and hydroponics in Marsabit: <https://we4f.org/innovator-news/supporting-local-entrepreneurship-in-northern-kenya>
 - Example: Solar milling and solar drying technologies for fruit processing: <https://we4f.org/innovator-news/mobile-solar-food-processing-improves-fruit-value-chains-in-kenya>
- 3) Another supporting measure is a) the development of a financing mechanism for end users together with local financial institutions, and b) the leveraging of additional investment through advisory support, matchmaking and partnerships with potential investors (including funds, foundations, angel investors and venture capitalists).

- 4) In order to create an enabling environment for the innovations of the SMEs to reach scale, the project seeks the dialogue and consultations with policy makers, industry associations and other key stakeholders. The activities will be further specified once the Innovation Call (No. 1) is completed in an effort to most effectively support the SMEs.
- 5) WE4F works closely with its partners across the globe to share knowledge, host study tours, create global knowledge tools and platforms and expand technical networks.
 - *Example:* TV show on how to get and use solar-powered irrigation <https://we4f.org/innovator-news/using-tv-to-educate-millions-of-farmers-about-solar-powered-irrigation>

CONTEXT THE PROJECT

Extreme weather events and changing rainfall patterns are part of the climatic changes experienced by Kenyan farmers. WE4F works with the private sector to promote and scale climate-friendly solutions for small-holder farmers to adapt to changing weather patterns and build resilience to climate change impacts. Moreover, WE4F promotes climate-smart food production and processing practices through demonstration sites and trainings, encouraging farmers to use natural resources more efficiently.

- **Marsabit:** Communities in Northern Kenya face challenging conditions where water is scarce and climate change effects exacerbate such challenges. In October 2020, WE4F and the Turkana Basin Institute (TBI) started a joint project, aiming to improve access to water and energy in the arid part of Northern Kenya, and to promote local entrepreneurship of hydroponic vegetable farmers.
- **Central Kenya:** When it comes to crop production, Kenyan farmers face several challenges. The effects of climate change, like droughts or floods, lead to reduced harvests or poor-quality crops. During the peak of harvest season, increased fruit supplies lead to lower prices at local markets. A large portion of harvested fruit products never reach consumers and are instead left to rot and become waste. WE4F and Miyonga Fresh Greens, a Kenyan fruit processing company, therefore partnered up to pilot climate-smart food processing technologies, such as solar-powered mills, dryers, and cold storage, to use lower quality fruits to make dried or powdered products that can be sold to global markets.

OBJECTIVE OF THE CSA PROJECT

The overall objective (impact) of the project is to increase food production and income of smallholder farmers through greater agricultural productivity and more sustainable practices of natural resource use. The specific objective (outcome) is the upscaling of climate friendly, energy and/or water efficient innovations and to strengthen the innovative potential of entrepreneurs for a more productive and ecological sustainable food production. As such, the project contributes to SDG 2 on Zero Hunger, SDG 6 on Water and Sanitation, SDG 7 on Energy, SDG 13 on Climate Change, and SDG 17 on Partnerships.

PARTICIPATION IN KEY CLIMATE & AGRICULTURE NETWORKS

- ASNET

INVOLVEMENT IN CLIMATE SMART AGRICULTURE WORK)

- Knowledge dissemination (education and awareness creation)
- Technology transfer

- Coordination and networking
- Financing of climate smart agriculture actions

RELEVANCE OF CSA MSP TO SCOPE OF WORK

- Information about CSA
- Networking
- Learning and exchange
- Reporting and showcasing
- Develop new business
- Influence policy environment

RECOMMENDATION ON WAYS TO SUPPORT MSP

- Dissemination of climate smart agriculture knowledge and technologies
- Developing capacities of key actors involved in climate smart agriculture implementation
- Monitoring, evaluation and audit of climate smart agriculture aspects to enhance accountability

WHAT APPROACHES ARE YOU USING TO IMPLEMENT CSA?

- Conservation Agriculture
- Sustainable Agriculture
- Good Agricultural Practices

ACTIVITIES BEING IMPLEMENTED BY WE4F, COUNTIES OF IMPLEMENTATION AND CSA INDICATORS MONITORED

FARM LEVEL	COUNTY	TARGET (NO OF FARMERS)	CSA INDICATORS MONITORED
Smart water management	Countrywide – depending on where private sector partners operate	65000 small-holder farmers with focus on youth, women and the poor	<ul style="list-style-type: none"> • Number of demo measures that show end users and multipliers the potential of climate-friendly, energy and/or water efficient innovations for productivity and income increases have been carried out in three countries of the hub region. • Number of funded innovators that successfully marketed their climate-friendly, energy and/or water efficient innovations with sales increases of 20%

			<p>on average compared to before funding. (30% led by women)</p> <ul style="list-style-type: none"> • Number of smallholder farmers that have introduced climate-friendly, energy and/or water efficient innovations propagated by innovators (2 of which use digital solutions). • Number of smallholder farmers and other end-users (e.g. companies) – disaggregated by gender and income – using energy or water-efficient WE4F innovations in their activities.
Renewable energy	Countrywide – depending on where private sector partners operate	65000 small-holder farmers with focus on youth, women and the poor	Number of demo measures that show end users and multipliers the potential of climate-friendly, energy and/or water efficient innovations for productivity and income increases have been carried out in three countries of the hub region.
BEYOND FARM LEVEL		TARGET BENEFICIARIES	INDICATORS MONITORED
Gender (Youth and Women inclusion in CSA)	Countrywide – depending on where private sector partners operate	2,500 multipliers have been informed about potentials of innovations in the course of capacity development measures. 40% of whom are women.	<ul style="list-style-type: none"> • Number of demo measures that show end users and multipliers the potential of climate-friendly, energy and/or water efficient innovations for productivity and income increases have been carried out in three countries of the hub region.

			<ul style="list-style-type: none"> Number of smallholder farmers that introduced climate friendly, energy and/or water efficient innovations to their farms have increased related productivity (production per ha) by 20%.
CSA based access to markets and value chains	Countrywide – depending on where private sector partners operate	25 processing companies and	<ul style="list-style-type: none"> Number of processing companies that have introduced climate-friendly, energy and/or water efficient innovations. Number of sustainable business models for the marketing of climate-friendly, energy and/or water efficient innovations have been developed by new or already established innovators.

LESSONS LEARNED AND CHALLENGES IN IMPLEMENTATION OF CSA PROJECT

RELEVANT LINKS & REFERENCES

- Website links for projects or any materials used: <https://we4f.org/>
- Toolbox on Solar-Powered Irrigation: https://energypedia.info/wiki/Toolbox_on_SPIS

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