



Water and Energy for
Food(WE4F)

COUNTRIES: Ethiopia, Kenya, Malawi, Rwanda, Somalia, Tanzania and Uganda

DONOR: German Federal Ministry for Economic Cooperation and Development (BMZ), the EU, the Dutch Ministry of Foreign Affairs, the Norwegian Agency for Development Cooperation (Norad), the Swedish International Development Cooperation Agency (Sida), and the US Agency for International Development (USAID)

CONTRACT VALUE: €4.5M

TECH ASS. VALUE: €1.4M

DURATION: 34 months

PARTNER: Intellecap

SDG: #1, #2, #6, #8, #13

Stimulating innovation and efficiency in food production around the globe

An entrepreneurial support initiative's recently concluded round of funding propelled the success of 15 varied small and medium-sized enterprises, all working in the food production sector of countries in East Africa.

Solar driven pump from Innovex in action in Mbata, Uganda



Food production around the world faces many challenges brought about by climate change, rapid increases in population, degradation of farmland and lack of investment in proper infrastructure. And many of these crises disproportionately affect smallholder farmers in underdeveloped rural regions around the globe.

With the rise of these challenges comes a need for innovative solutions, especially in terms of reducing the resources needed to increase food production yields. It is estimated that agriculture accounts for 70% of global freshwater use, and the food production and supply chain consumes about 30% of total energy consumed globally.

Funding solutions to these kind of problems is what the Water and Energy for Food (WE4F) Challenge Fund is all about. The goal is to support innovative enterprises that impact water-food, energy-food or water-energy-food production chains in an efficient and sustainable manner, while bringing long-term improvements to the livelihoods of smallholder farmers who are the end-users of the SME innovations.

WE4F is a joint international initiative, funded by the German Federal Ministry for Economic Cooperation and Development (BMZ), the European Union (EU), the Dutch Ministry of Foreign Affairs, the Norwegian Agency for Development Cooperation (Norad), the Swedish International Development Cooperation Agency (Sida), and the US Agency for International Development (USAID).

“For me, the highlight has really been understanding how water and energy works outside Africa. Learning from the Middle East, people from Asia... And of course, most importantly, connecting with them and understanding specific problems they go through as entrepreneurs, but also solutions they're building to solve problems of food scarcity. ... My mindset has really been transformed. I am now thinking on a global perspective. Yes, I'm going back to Uganda, but I'm not thinking about just Uganda. I'm thinking about the rest of Africa, the rest of the world.”

Douglas Karugaba Baguma, Founder and CEO of Innovex Uganda

SokoFresh's cold storage facilities reduces farmers' post-harvest losses.



Significant energy and water savings through innovative entrepreneurship

WE4F operates out of five regional innovation hubs based in East Africa, West Africa, Middle East and North Africa, Southern and Central Africa and South and Southeast Asia. The GIZ WE4F East Africa hub based in Kenya recently celebrated the success of 15 enterprises that had received support in its latest investment round. All of these had managed to achieve key milestones in terms of innovation and growth, which could be directly attributed to the €2.8M of funds disbursed in total among them.

NIRAS, together with our partner Intellecap, was contracted as the fund manager and technical adviser for WE4F East Africa, and supported the 15 companies through their journey, by contracting and disbursing funds as well as through providing technical guidance and specific company-tailored business advice.

One of the major achievements of WE4F East Africa was the leveraging of almost €10M in additional funding for the companies, more than tripling the fund value of €2.8M. NIRAS's access to finance experts supported the SMEs in preparing for investments, organised investor matchmaking, established contacts with possible investors and assisted in preparations for funding discussions.

Another area of success for the SME innovators was in energy and water savings and carbon reduction resulting from the interventions implemented in the programme. Jointly, the food value chain innovations abated more than 6,000 tonnes CO₂e per year of GHG emissions and saved a substantial 16 million kWh of energy and 620 million litres of water.



97,726

smallholder farmers impacted



100%

of funds dispersed



94%

of milestones achieved



A year of success stories and 100% milestones accomplished

One of the 15 supported SMEs is Soko Fresh, a company that provides off-grid cooling and processing solutions for smallholder farmers in Kenya. Their goal is to eliminate post-harvest food loss by providing farmers with access to off-grid cold storage and processing services at an affordable price.

"In Kenya and East Africa, about 40–50% of all fresh fruit and vegetables are lost post-harvest, and a lot of the reasons why we have this loss is the lack of supply chain infrastructure from farm gate to markets," says Arpana Philip, COO of the company. "A lot of these cold storages are available for exporters near the airport but not really near the farms, and so what Soko Fresh does is bring that innovation to the farms."

Another Kenya-based company that benefited from WE4F support is Safi Organics. Safi Organics produces organic fertiliser at a competitive price, made possible by an innovative production process that uses locally available resources. The use of organic fertiliser is important, as cheap, synthetic fertiliser tends to acidify and degrade the soil over time. The fertiliser that Safi Organics produces provides remedy against soil acidity while also increasing yields.

Through the investment of WE4F, Safi Organics has been able to upscale its operations significantly, with plans for much greater expansion to come.

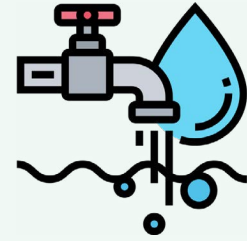
“We will be setting up two other production facilities over the course of this year. And in three years, we believe, with about 20 production facilities, we’ll be in the position to supply the country with organic fertiliser that it needs,” says Samuel Wanderi Rigu, founder of Safi Organics.

Samuel is not limited in his praise for what WE4F has done for him and other enterprises in Kenya. “I’m very, very happy with WE4F because they are bringing people who are making an impact and making the world a better place,” he says.



+ 16 million
kWh of energy saved

62,092
tCO₂eq/year saved



+ 618 million
litres of water saved

Uganda-based startup Emata was also able to expand operations in the span of a year thanks to WE4F and the additional funds they managed to leverage as a result of that support. The firm provides smallholder farmers with affordable digital loans that they would otherwise not be able to access, as banks have traditionally viewed agriculture as a high-risk sector. Emata’s system is fully digital and credit limits can be tailored down to each individual farmer taking the loan.

Emata’s loans are also very accessible to women and the youth,

who often do not have the collateral required to take bank loans. “I wanted to develop myself without relying on a man,” says Ndyasiima Hope, a small-scale farmer. “I was just seated at home doing nothing. No product, no money to sustain me ... Now, I can pay my child’s fees, I can build a house, I can sell some goats and contribute to the general well-being of my family.”

By the end of the programme period, an estimated 22,363 farmers have digital accounts and are now able to take loans from Emata.



Emata staff Lillian Nassanga explains to a Ugandan farmer how the loan scheme is working. Emata records the details and takes a photo of each loan grantee in order to tailor the loan to need and repayment ability.

These are only a few of the success stories of innovative enterprises under the WE4F programme in East Africa. The rest can be found on the WE4F website alongside innovators from the other regional hubs.