



YouthADAPT Challenge PROFILES

2025 ::::::::::::::



GLOBAL
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ADAPTATION



Acknowledgements

The **YouthADAPT Program** is a flagship initiative under the **Africa Adaptation Acceleration Program (AAP)**, jointly implemented by the **African Development Bank (AfDB)** and the **Global Center on Adaptation (GCA)**.

The program acknowledges the generous funding support of the **Youth Entrepreneurship and Innovation Multi-Donor Trust Fund (YEI MDTF)** and the **Africa Climate Change Fund (ACCF)**. Their contributions have been instrumental in empowering Africa's young entrepreneurs to develop and scale innovative climate adaptation solutions across the continent.

Through this partnership, YouthADAPT continues to bridge the gap between climate finance and youth innovation—catalyzing job creation, resilience, and sustainable growth in Africa.



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Our Track Record



\$5.4
million
invested



41
enterprises
supported



20
African
Countries



61%
of enterprises
are women-led



12
month
accelerator
program



30%
increase
in adaptation jobs

Our Impact



10,697
direct and indirect
jobs created



\$7 million
additional finance
mobilized



20%
enterprises
expand to
new markets



100%
revenue growth



31,836
beneficiaries
trained



233
mentorship
sessions conducted



The YouthADAPT Program

The African Development Bank and Global Centre on Adaptation (GCA) have joined forces under the Africa Adaptation Acceleration Program (AAAP) to mobilize USD 25 billion by 2025 to scale up and accelerate climate change adaptation actions across Africa.

The YouthADAPT Program is one of the four pillars of the AAAP with a mandate to directly strengthen the productivity and growth of youth-owned micro, small and medium sized enterprises (MSMEs), 60% women, delivering innovative climate solutions in Africa. It has the overall aim to expand MSME income, create green jobs, and directly support innovative solutions for low-income economies and populations vulnerable to climate change.

Under this program, 41 entrepreneurs from 20 African countries have so far been supported with grant funding to the tune of \$5.4 million under the African Youth Adaptation Solutions Challenge (YouthADAPT) competition.

For the competition, each enterprise is awarded a grant of up to \$100,000 to scale-up their innovative climate solutions. In addition to the grant, the entrepreneurs benefit from a 12-month accelerator program providing tailored training, mentorship and networking to help them grow their businesses, deepen their impact and create decent jobs. The YouthADAPT Program aims to support 10,000 MSMEs to the year 2025.

Below are profiles of the winning enterprises that are scaling climate adaptation innovations in critical social and economic sectors affected by climate change. These sectors include agriculture, waste management, water resources management and sanitation, renewable energy, energy efficiency, among others. Over 50% are female owned MSMEs.



Onion Doctor Ltd (Kenya)

FOUNDER

Lucy Wangari

Founder & CEO

SDG's

2 ZERO HUNGER



13 CLIMATE ACTION



PROBLEM

In Kenya's arid and semi-arid lands, smallholder farmers struggle with low onion yields due to erratic rainfall, frequent pest infestations, and a lack of climate-resilient farming practices. Local onion production meets only ~30% of demand, leaving farmers vulnerable and food markets dependent on imports.



SOLUTION & INNOVATION

Onion Doctor provides a tech-driven support system for onion farmers in these dry regions. The enterprise supplies drought-resistant onion seedlings, low-cost smart irrigation kits, and tailored agronomic advice optimized for harsh conditions. By leveraging IoT-based pest and disease monitoring, farmers receive early warnings to reduce crop losses. This comprehensive, climate-smart package boosts productivity on previously barren lands while a **pay-as-you-go** financing model (in development) makes the solution affordable to resource-poor farmers.



FUNDING & SUPPORT

Onion Doctor was a winner of the **YouthADAPT Challenge 2023**, receiving a grant of up to **\$100,000** and a 12-month business accelerator support. This backing is accelerating product development (e.g. enhanced IoT devices) and expansion into new counties. The enterprise is forging partnerships with local governments and NGOs to scale its climate-smart agriculture solutions, with donor support helping to de-risk expansion into more arid communities.



IMPACT

- **Land Transformation:** Converted **1,426 acres of arid land** into productive onion farms using climate-resilient practices.
- **Job Creation:** Employs **5 full-time** and **19 part-time staff**, and has created over **2,100 indirect jobs** through its out-grower network.
- **Production Impact:** Partner farmers have produced **725,000 kg of onions** using **climate-smart methods** promoted by the enterprise.
- **Community Impact:** Strengthening **food security, incomes**, and **resilience** across Kenya's ASAL regions.



Quote: "The YouthADAPT funding will help us improve our automated pest and disease monitoring device, hire key personnel, increase our inventory, introduce a pay-as-you-go model and reach more counties in the arid and semi-arid regions." — **Lucy Wangari, Founder & CEO.**



Flushh (Namibia)

FOUNDER

Kaveto Tjatjara

CEO & Founder

SDG's

6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



13 CLIMATE ACTION



PROBLEM

In Namibia, **1.5 million** people live without access to safely managed sanitation. Rapid urbanization and water scarcity (worsened by climate change) make pit latrines and open defecation common, causing health hazards and groundwater contamination. Traditional flush toilets are often impractical in water-scarce, off-grid communities.



SOLUTION & INNOVATION

Flushh is a cleantech social enterprise building innovative **waterless eco-toilets** for underserved communities. Made from locally sourced recycled materials, each toilet uses **smart sensors** and solar power for lighting and ventilation, and transforms human waste into biochar or biogas – a renewable energy source. This circular sanitation model improves hygiene and dignity while reducing water usage and methane emissions. By **converting waste to energy**, Flushh's toilets provide a dual benefit: safe sanitation and an alternative fuel for households.



IMPACT

- **Sanitation Access:** Improved sanitation for **hundreds of Namibian households**, with over **2,000 daily users** of Flushh toilets.
- **Job Creation:** Generated **local green jobs** in **manufacturing, installation, and servicing** of sustainable toilets.
- **Circular Economy:** Converts waste into **biogas and biochar**, reducing pollution while supplying **fertilizer and clean cooking fuel**.
- **Social Impact:** Promotes **health, dignity, and climate resilience** by making **toilets accessible to every home**.



BUSINESS MODEL

Flushh generates revenue through multiple channels: selling eco-toilets to government and NGOs for schools (with ongoing maintenance contracts), renting portable units for community events, and **affordable household subscriptions** (enabling families to pay monthly for a toilet and waste collection service). This blended model ensures financial sustainability and broad reach, from rural villages to peri-urban schools.



FUNDING & SUPPORT

- **YouthADAPT Recognition:** Winner of the **2022 YouthADAPT Challenge**, receiving a **\$100,000 grant** and **accelerator mentorship** to scale operations.
- **Additional Funding:** Awarded an **\$80,000 Echoing Green Fellowship** to advance its **sanitation innovation**.
- **Innovation & Outreach:** Funding supports **toilet sensor R&D, community education, and pilots in new regions**.
- **Long-Term Goal:** With ongoing **partner and government support**, Flushh aims to **end open defecation in Namibia** through **climate-resilient sanitation solutions**.



Quote: *Securing funding from the YouthADAPT Climate Challenge will enable Flushh to scale up our efforts in promoting sustainable sanitation technologies and breaking taboos among young people. This support will also amplify our impact, empowering a new generation to become champions for climate resilience and adaptation.* — Kaveto Tjatjara, CEO & Founder.



Global Farms & Trading Co. Ltd. (Ghana)

FOUNDER

Mahama Saamani Elisha

Executive Director

SDG's

2 ZERO HUNGER



13 CLIMATE ACTION



8 DECENT WORK AND ECONOMIC GROWTH



PROBLEM

In northern Ghana, smallholder farmers face **low crop productivity** due to climate stress (droughts, erratic rainfall) and limited access to inputs and training. Agricultural extension services are insufficient (with one agent per 700+ farmers, vs the FAO-recommended 1:500 ratio), leading to poor adoption of climate-smart practices. Farmers struggle with soil degradation and lack markets for their produce, perpetuating rural poverty.



SOLUTION & INNOVATION

Global Farms is a Ghanaian agribusiness taking a **conservation agriculture** approach to improve yields while protecting the environment. The company works with smallholder farmer groups, training them in climate-smart practices like minimum tillage, cover cropping, and efficient water use. It provides access to drought-tolerant seeds, organic fertilizers, and pre-financed inputs, combined with an e-commerce platform ("**Farmer Space**") that connects farmers to markets and climate information. By organizing farmers as out-growers and aggregating their harvest (maize, rice, soybeans, cassava), Global Farms ensures better prices and reduces post-harvest losses, all while promoting sustainable land use.



IMPACT

- **Farmer Empowerment:** Trained and supported **over 2,500 smallholders**, including **women and persons with disabilities**, to adopt **climate-resilient farming practices**.
- **Improved Productivity:** Enhanced **yields and income stability**, with farmers reporting **better food security and soil health** through **conservation agriculture**.
- **Ecosystem Benefits:** Promotes **sustainable land use** and helps **safeguard local ecosystems** against degradation.
- **Economic Growth:** Drives **rural employment** and **value addition** through **farmer cooperatives** and **processing of crops** such as cassava and rice.



FUNDING & SUPPORT

- **YouthADAPT Recognition:** Winner of the **2021 YouthADAPT Challenge**, receiving a **\$100,000 grant** and **mentorship** to expand operations and launch the **Farmer Space platform**.
- **Government Support:** Secured a **national agricultural grant of about \$40,000** to scale up **maize and soybean production** using **climate-smart practices**.
- **Partnerships & Impact:** Working with **donors and partners** to enhance **rural livelihoods** and showcase how **blended finance in agriculture** can accelerate **climate adaptation at the grassroots**.



Quote: "It's a breakthrough for us as a company because our innovation has created a lot of opportunities for us and smallholder farmers, especially persons with disabilities who would have otherwise been left out. In addition, the company has been exposed to knowledge and skills on climate adaptation as a result of the YouthADAPT training programs." — Mahama S. Elisha, Executive Director.



AgroExpert Farming (Senegal)

FOUNDER

Moussa Diouf

CEO

SDG's

2 ZERO HUNGER



13 CLIMATE ACTION



5 GENDER EQUALITY



PROBLEM

In Senegal and across Africa, subsistence farmers are grappling with more frequent droughts and unpredictable rains due to climate change. Less than **5% of cultivated land** in Africa is irrigated, leaving most small farms dependent on rainfall. During dry seasons, crops fail, leading to food insecurity and loss of income, especially for women farmers in rural communities who often lack resources to invest in irrigation or improved seeds.



SOLUTION & INNOVATION

AgroExpert Farming is an award-winning social enterprise helping farmers adopt **climate-smart agriculture** techniques. The venture offers an affordable **low-pressure drip irrigation kit** designed for small plots, enabling year-round cultivation with minimal water use. Alongside irrigation technology, AgroExpert provides drought-resistant seeds, organic fertilizers, and training in regenerative farming (e.g. cover cropping and soil conservation). Uniquely, the model encourages farmers to form groups to share equipment and costs, and uses simple mobile tools (GSM/SMS-based) to coordinate collective irrigation scheduling and payments. By eliminating reliance on fuel pumps through gravity-fed, solar-supported drip systems, farmers reduce carbon emissions and input costs while building resilience to drought.



IMPACT

- **Farmer Reach:** Supported **over 20,000 smallholder farmers** across Senegal, the majority of them **women**.
- **Productivity Gains:** Enabled **300–400% increases in crop yields**, allowing farmers to grow **high-value vegetables year-round**.
- **Community Impact:** Improved **food security, nutrition, and household incomes** as families harvest even during dry seasons and sell surplus produce.
- **Adoption & Training:** Between **2018–2023**, **drip kits and training** spread across multiple regions, transforming **fallow dry-season land** into productive farms.
- **Local Empowerment:** Fostered **rural entrepreneurship** by training **lead farmers as agri-trainers** and creating **jobs for field technicians**, while enhancing **water-use efficiency** and **drought resilience** at the village level.



FUNDING & SUPPORT

- **YouthADAPT Recognition:** Winner of the **2022 YouthADAPT Challenge**, receiving a **\$100,000 grant** and **business acceleration support**.
- **Scaling Impact:** Expanded **drip irrigation access** to new communities and launched a **farmer mentorship network**.
- **Collaborative Projects:** Partners with **international NGOs** and **government programs** to **co-fund irrigation initiatives** for **women's farming groups**.
- **Future Vision:** Seeking **blended financing** (grants and impact investment) to reach **tens of thousands more farmers** and build a **drought-resilient agricultural future** for Senegal.



Quote: “The YouthADAPT funding means a lot to me, as it will enable me to scale up my business into more regions across Senegal and help me achieve my vision of impacting 50,000 farmers by 2025.” — Moussa Diouf, CEO & Founder.



Grocircular Agro Services (Nigeria)

FOUNDER
Rebecca Andeshi
CEO

SDG's



PROBLEM

Lagos State, Nigeria generates **over 4,800 tons of livestock waste** annually, yet less than 2% is recycled. The rest is dumped in landfills or water bodies, causing methane emissions (a potent greenhouse gas), water pollution, and health hazards. Traditional farming in Nigeria also relies on expensive chemical fertilizers, while nutrient-rich organic waste is underutilized. This represents both an environmental challenge and a missed economic opportunity for farmers.



SOLUTION & INNOVATION

Grocircular Agro Services addresses agricultural waste with a **circular economy** model. The enterprise collects livestock and crop waste and processes it into a **biochar-fortified organic fertilizer** at scale. Using innovative renewable energy tech (anaerobic digestion and high-temperature biochar production), Grocircular's facility converts tons of manure and crop residues into affordable, carbon-rich fertilizer. This fertilizer regenerates degraded soils by improving water retention and sequestering carbon – the biochar in the mix can lock away **97% of carbon** in soil for up to 2000 years. The solution thus cuts greenhouse emissions and boosts crop yields without chemical inputs. Grocircular also embodies social innovation: it runs community education on sustainable waste management and is piloting new products like a red seaweed feed additive to reduce cattle methane emissions, as well as an AI-driven livestock health wearable (showcasing a holistic approach to climate-smart farming).



IMPACT

- **Production & Climate Impact:** Produces **80 tons of organic fertilizer monthly**, cutting about **1 ton of CO₂ emissions per ton** produced.
- **Farmer Benefits:** Farmers report up to **100% yield increases** and a **33% longer shelf life** for produce due to improved soil health.
- **Cost Savings:** The fertilizer is **₦30,000 cheaper per bag** than chemical alternatives, making it both **climate-smart** and **affordable**.
- **Green Employment:** Created **11 full-time, 200 part-time**, and over **5,000 indirect jobs** for **waste collectors, plant technicians, and distributors**.
- **Scaling Vision:** With **YouthADAPT support**, aims to expand to **40 tons daily production**, reaching **760,000 smallholder farmers annually** and **further reducing waste-driven emissions**.



FUNDING & SUPPORT

- **YouthADAPT Recognition:** Winner of the **2022 YouthADAPT Challenge**, receiving a **\$100,000 grant** and **business development support**.
- **Expansion & Scale-Up:** Funding is driving the **construction of a larger waste-recycling facility and the distribution of organic fertilizer** to new regions.
- **Innovative Financing:** Exploring **carbon credit opportunities** and **impact investment** to build on its strong **emissions-reduction results**.
- **Future Outlook:** With backing from the **African Development Bank** and **GCA's accelerator**, Grocircular is positioned to become **Nigeria's leader in livestock waste methane mitigation** — transforming waste into value for farmers.



Quote: "The YouthADAPT funding will enable me to reach 760,000 smallholder farmers in Nigeria annually. I would also create 5,000 indirect jobs for youths in the community and further increase our production capacity to 40 tons per day." — **Rebecca Andeshi, CEO & Founder**.

YOUTHADAPT CHALLENGE WINNERS – ENTERPRISE PROFILES



CassVita (Cameroon)

FOUNDER

Pelkins Ajanoh

(Founder & CEO, age 29) –
Improving food security through
cassava innovation.

SDG's

2 ZERO HUNGER



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



8 DECENT WORK AND ECONOMIC GROWTH



CLIMATE CHALLENGE

Climate change threatens staple grain yields (e.g. maize down 24% by 2030) and causes food insecurity. Meanwhile, the climate-resilient cassava crop often rots within 3 days of harvest, leading to waste and lost income for smallholder farmers.



INNOVATIVE SOLUTION

CassVita developed a biotechnology that extends fresh cassava's shelf-life from 3 days to 18 months. This allows year-round processing of cassava into flour as a gluten-free wheat alternative for food industries. By turning a quick-spoiling tuber into a stable commodity, CassVita creates a climate-resilient food supply chain and new markets for farmers. Its products are already sold in 136 supermarkets, and CassVita was recently approved by Nestlé for sourcing.



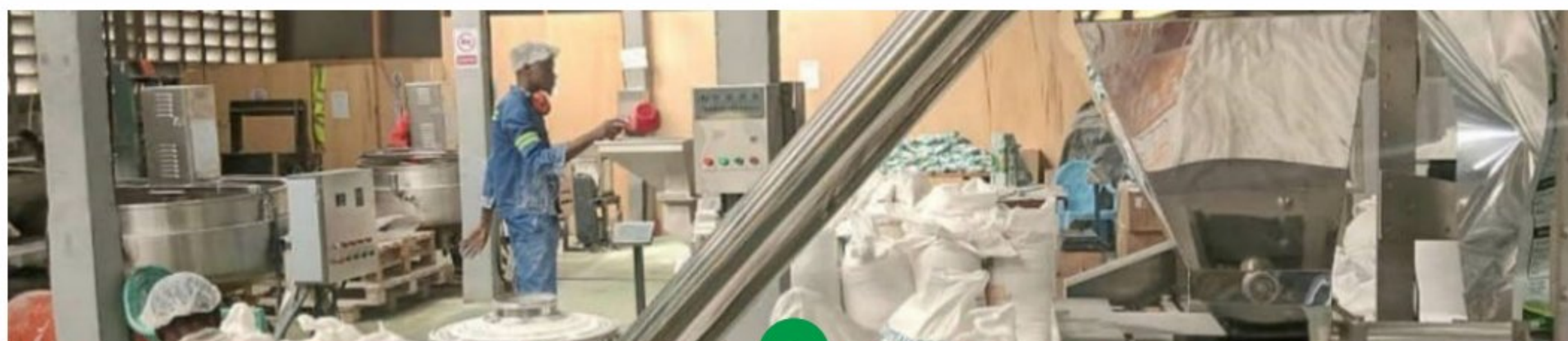
IMPACT

- **Job Creation:** 40% increase in jobs since project launch (21 full-time employees in 2023).
- **Farmers Supported:** 1,500 smallholder farmers now supply cassava to CassVita's network, improving their incomes.
- **Partnerships:** Collaborations with Mulago Foundation and World Food Programme to scale climate adaptation impact.
- **Youth & Innovation:** 200 youth trained in agribusiness skills; 2 patents secured for cassava processing innovations.



FUNDING & SUPPORT

- **YouthADAPT 2022 (AfDB/GCA):** \$100,000 grant as a top African youth-led climate enterprise (winner of 2022 YouthADAPT Challenge).
- **Mulago Foundation:** \$100,000 grant (2022–23) to pilot CassVita's cassava shelf-life extension technology and boost farmer incomes.
- **World Food Programme:** Technical partnership to integrate cassava flour into food aid and nutrition programs (linking farmers to broader markets).





AlTech (Algeria)

FOUNDER

Nassim Ilmane

(Co-Founder & Manager) – Data-driven farming for climate resilience.

SDG's

2 ZERO HUNGER



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



13 CLIMATE ACTION



CLIMATE CHALLENGE

Rising temperatures and shifting seasons are amplifying crop diseases and making farming unpredictable. Small farmers struggle to anticipate pest/disease outbreaks exacerbated by climate change, leading to crop losses and food insecurity.



INNOVATIVE SOLUTION

AlTech provides a two-part digital solution: an ERP platform for commercial farming companies to monitor and manage crop production, and a user-friendly mobile app for smallholder farmers that delivers early disease warnings and tailored advice. By combining big-data analytics with on-the-ground farmer guidance, AlTech helps farmers adapt to climate-driven agricultural threats and improve productivity. The business earns revenue via enterprise software sales and a freemium subscription model for farmers.



IMPACT

- **Productivity Gains:** Pilots show more predictable yields as farmers receive timely disease predictions, reducing crop losses (backed by a 2023 AfriLabs-supported project on disease prediction).
- **Job Growth:** 100% growth in company jobs since launch (now 12 employees), creating new tech and agronomy roles for youth.
- **Farmer Reach:** 4x increase in farmers supported through the app (reaching hundreds of farmers across Algeria and beyond).
- **Partnerships:** 4 strategic partnerships forged (e.g. with agri-cooperatives, NGOs, and tech hubs) to expand climate-smart farming solutions.
- **Market Footprint:** Active in Algeria, with expansions to South Africa, Morocco, and Tunisia, indicating a scalable model for Africa's 50+ million farmers.



FUNDING & SUPPORT

- **YouthADAPT 2022:** \$100,000 winner's grant (African Development Bank/GCA) supporting development of AlTech's climate-smart farming platform.
- **AfriLabs Innovation Fund:** \$100,000 in 2023 for AlTech's AI-driven disease prediction system. This funding enabled advanced R&D on crop disease modeling.
- **Sylabs Incubator:** Seed support (~\$11,000 USD equivalent) in 2020 to launch AlTech's prototype and business operations.
- **Mobilis Sponsorship:** ~\$3,700 USD (2021) from Mobilis (Algerian telecom) to scale the farmer mobile app outreach.



West African Feeds (Ghana)

FOUNDER

Rose Noah

(CEO, age 28) – Turning waste and insects into sustainable protein.

SDG's

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



2 ZERO HUNGER



5 GENDER EQUALITY



CLIMATE CHALLENGE

Ghana faces mounting organic waste and a deficit of affordable protein for animal feed. Traditional waste disposal emits greenhouse gases, while fish meal and soy-based feeds strain ecosystems. There's a need for circular solutions that reduce waste and provide alternative proteins for food security.



INNOVATIVE SOLUTION

West African Feeds is a biotech venture converting indigenous insects into valuable products. The company breeds Black Soldier Fly (BSF) larvae that bioconvert organic waste into high-protein meal and oil for animal feed, as well as fertilizer and even cosmetic ingredients. Its **"Ento Box"** innovation – a modular insect farming kit with a digital platform – tracks waste inputs and resulting carbon emission reductions in real time. This creates a circular economy link between waste producers and BSF farmers, diverting organic waste into productive use. WAF's revenue comes from sale of BSF-derived feed products and consultancy services on insect-farming waste management.



IMPACT

- **Green Jobs:** Achieved a 50% increase in jobs, now employing 3 full-time staff (plus 5 part-time/casual) in insect farming and processing.
- **Women Empowerment:** Training 40 rural women (in partnership with a municipal assembly) to use BSF for community waste recycling, creating female entrepreneurs in the circular economy.
- **Farmer Benefits:** 30% of partner poultry farmers now use WAF's insect-based feed, improving local feed security. The venture can supply over 1,000 small-scale poultry farmers with sustainable feed ingredients.
- **Climate Impact:** Three international partnerships (including Dutch companies) established to scale the "business-in-a-box" insect farming model. By recycling organic waste, WAF cuts waste management costs and emissions, contributing a proven climate adaptation innovation in West Africa.
- **Economic Growth:** Generated over GHS 26,000 in revenue in 2023 (approx. \$3,000+), reinvested into expanding production capacity.



FUNDING & SUPPORT

- **YouthADAPT 2022:** \$100,000 grant award (AfDB/GCA) recognizing WAF's innovative climate business and supporting expansion of its BSF production facility.
- **Ghana Climate Innovation Center (GCIC):** \$21,000 grant (2019–2020) to establish WAF's first BSF larvae production facility and scale operations.
- **UNDP Waste Recovery Challenge:** \$26,000 award (2020) to build a city-level circular economy system – reducing urban waste collection costs while creating economic value for women and youth through BSF farming.
- **USDA Grant (2020–21):** Provided GHS 243,656 (~\$42k) to **"Scale Up Ghana's Insect-Based Poultry Feed Industry"**, enabling WAF's out-grower scheme. This created 20 new youth/women-owned enterprises and 70+ indirect jobs in feed production, while boosting market demand for insect protein feed.



Mpatsa Engineering – SWIFT (Malawi)

FOUNDER

Ulaya Mwale

(Founder & Water Engineer, age 33)
– Solar-powered water and irrigation for rural resilience.

SDG's

6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



13 CLIMATE ACTION



2 ZERO HUNGER



CLIMATE CHALLENGE

Rural Malawian communities suffer water shortages and energy blackouts due to climate shocks like severe droughts and floods. Droughts diminish water supplies and disrupt hydroelectric power, while floods damage infrastructure – undermining agriculture and livelihoods. Many villages lack clean water, leading to water-borne diseases, and rely on firewood for energy, causing deforestation.



INNOVATIVE SOLUTION

Mpatsa's SWIFT project (Sustainable Water Irrigation and Farming Technologies) delivers **solar-powered water supply systems** and **irrigation schemes** to off-grid communities. Under a unique "water & energy as a service" model, SWIFT designs, finances, installs and maintains solar water pumps, purification units, and drip irrigation networks for villages. Communities get reliable, clean water and electricity without upfront costs, paying an affordable usage fee instead. This approach ensures climate adaptation by securing year-round water (even during droughts) and using renewable solar energy to avoid carbon emissions. For example, SWIFT has drilled over 350 boreholes and installed solar pumps across Malawi, providing safe water to approximately 100,000 people in climate-vulnerable rural areas (per project records).



IMPACT

- **Community Water Access:** Dozens of villages now have solar-powered water supply, reducing incidence of cholera and water-borne illness (as clean water is readily available even after floods).
- **Agricultural Resilience:** 2,000+ farmers benefit from reliable irrigation water, boosting crop yields and food security despite erratic rainfall. Crops are grown in previously barren dry seasons, contributing to SDG2.
- **Job Creation:** 300% growth in full-time staff since 2021 (from 4 to 16+ employees) as the enterprise scales operations. SWIFT's projects also create local jobs in construction and maintenance of water systems.
- **Climate Projects:** Successfully executed 3 major climate adaptation projects (solar water schemes in different regions) demonstrating replicability.
- **Partnerships:** Collaborations with 5 organizations (including government agencies and NGOs) to co-implement and finance water-energy projects, ensuring sustainability and community buy-in.



FUNDING & SUPPORT

- **YouthADAPT Challenge 2022:** \$100,000 grant (AfDB/GCA) awarded to SWIFT, fueling the expansion of solar-powered water systems to more off-grid communities.
- **Water.org Grant:** \$100,000 (2024–2025) from Water.org to develop a solar-powered water supply at Cape Maclear, Malawi – aiming to provide clean water access to 5,000 people and showcase a model for climate-resilient water infrastructure.
- **Government & NGO Contracts:** Secured contracts through Malawi's Ministry of Agriculture and NGOs for building boreholes and solar irrigation (2017–2020), which provided initial revenues and proof-of-concept for the SWIFT model.
- **Private Partnerships:** Engaging local microfinance and community trusts to establish a pay-as-you-go system for water (e.g. ~\$1 per 1,000 liters) that ensures system upkeep and long-term viability. This innovative financing draws on lessons from SWIFT's YouthADAPT-supported pilot, where community payments fund maintenance instead of relying on diesel generators.



Farmer Lifeline (Kenya)

FOUNDER

Esther Wanjiru Kimani

(Founder & CEO, age 28) – AI-powered crop protection for smallholders.

SDG's



CLIMATE CHALLENGE

Smallholder farmers in Kenya face crop losses from pests and diseases, problems worsened by climate variability. Traditional methods often rely on heavy chemical use, causing soil degradation and greenhouse gas emissions. There's a need for early detection of pest outbreaks to prevent crop failure and reduce overuse of pesticides.



INNOVATIVE SOLUTION

Farmer Lifeline Technologies has developed a **solar-powered farm camera scanner** that uses AI to detect crop pests and diseases early. The device monitors crops 24/7 and sends farmers timely alerts and remediation advice via SMS/app, recommending eco-friendly solutions. By catching infestations early, farmers can act before damage spreads, reducing crop loss and the need for chemical spraying. The model operates on an affordable leasing scheme – farmers pay about \$3 per month to use the device, rather than buying it outright. Farmer Lifeline also aggregates anonymized crop health data, with potential to monetize insights (and even generate carbon credits by optimizing inputs).



IMPACT

- **Farmer Reach:** The service scaled from 1,535 farmers to over 5,100 smallholder users across Kenya within one year of YouthADAPT support. These farmers, many in marginalized rural communities, now receive monthly crop health reports.
- **Yield Increases:** 95% of users report higher harvests – on average a 40% yield increase – and a 35% reduction in crop losses due to early pest intervention. This directly translates to better food security and incomes for farming families.
- **Job Creation:** The startup's team more than doubled from 4 to 9 full-time employees (plus 14 part-time field technicians) after joining the YouthADAPT program. New roles were created in AI data analysis and farmer training, illustrating how climate-tech can generate employment.
- **Community Partnerships:** Established partnerships with 7 farmer organizations and cooperatives (e.g. FarmLink, Nyandarua Farmers Association) to extend outreach. These partnerships help embed the tech in local agricultural practices and ensure women and youth farmers are included.
- **Awards:** Winner of the 2022/2023 Africa Youth Adaptation Challenge (jointly by AfDB, GCA, and CIF), recognizing Farmer Lifeline's contribution to climate-smart agriculture.



FUNDING & SUPPORT

- **YouthADAPT 2022/23 (AfDB/GCA/CIF):** \$100,000 grant to scale the pest/disease detection device across Kenya. This funding supported deployment of units to new regions and development of the AI advisory platform.
- **Graca Machel Trust:** \$17,500 in two grants (2021–2022) from the Graça Machel-led Gender Innovation programs, enabling Farmer Lifeline to reach women farmers with its technology. These funds went toward community training sessions and subsidizing device leases for women-owned farm groups.
- **Technical Mentorship:** Support from Kenya Agricultural Research Institute (KALRO) and partners in validating the AI models on local crop disease data, ensuring the solution is scientifically robust and region-specific.
- **Future Plans:** Farmer Lifeline is seeking \$250,000 in growth capital to expand to 15,000+ farmers in East Africa, enhance its AI for more crop types, and set up a carbon credit mechanism for reduced pesticide use – driving both climate adaptation and mitigation.



Green Impact Technologies (Malawi)

FOUNDERS

Joyce Sikwese
(29, Co-Founder & Business Development Manager) &
Admore Chiumia
(Co-Founder & CEO)

SDG's



PROBLEM

Only 12% of rural Malawians have electricity. Most rely on charcoal, firewood, and kerosene—driving deforestation, emissions, and poor health. Farmers also lack affordable energy for irrigation and storage, trapping them in poverty and climate vulnerability.



SOLUTION & INNOVATION

Since 2018, **Green Impact Technologies (GIT)** has delivered solar home systems, solar pumps, biogas units, solar refrigerators, and organic fertilizers to low-income communities. Using **PAYGO and micro-loans**, GIT makes clean energy and climate-smart farming affordable. Its model replaces wood fuels and chemical fertilizers with renewable energy and organic inputs—reducing emissions, improving yields, and creating jobs for youth and women.



IMPACT

- **Energy Access:** 45,000+ households electrified through solar lighting, reducing CO₂ emissions and indoor air pollution.
- **Agricultural Resilience:** 30,000+ farmers supported with solar irrigation and organic fertilizer, improving yields and food security.
- **Job Creation:** 30 full-time staff (40% women) and 250 youth agents earn income through clean energy sales.
- **Climate Impact:** Biogas and solar projects reducing reliance on diesel and wood fuels, aiding forest conservation.
- **Youth & Women Empowerment:** 800+ youth trained in solar tech; 150 women farmers skilled in irrigation and agribusiness.



FUNDING & SUPPORT

- **Blended Finance (~\$3.5M):** World Bank (\$1.95M), USADF (\$200k), EEP (€220k), UNIDO (€280k).
- **YouthADAPT 2022:** \$100k grant to scale fertilizer and solar pump production.
- **Social Enterprise Debt:** \$200k loans from Charm Impact and the Energy Access Relief Fund.
- **PPP Commission (Malawi):** \$200k to train 2,000+ people in solar and business skills.



FUTURE OUTLOOK

GIT aims to raise **\$5M** to expand across Southern Africa, scaling **PAYGO solar systems, mini-grids, and climate-smart farming**, driving resilience, green jobs, and low-carbon growth at scale.



"We are building a clean-energy movement that goes beyond access—it's about giving every farmer, woman, and youth the power to produce, grow, and thrive sustainably." — Green Impact Technologies Team



Green Eden Farms (Nigeria)

FOUNDER

Stephanie Meltus

CEO and Co-Founder

Sector: Agriculture and Food Security

SDG's

2 ZERO HUNGER



13 CLIMATE ACTION



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



5 GENDER EQUALITY



8 DECENT WORK AND ECONOMIC GROWTH



PROBLEM

Smallholder farmers in Nigeria face drought, erratic rainfall, and soil degradation, with limited irrigation, data, and finance. Women and youth—most of the rural workforce—remain marginalized, worsening food insecurity and poverty.



SOLUTION & INNOVATION

Green Eden's **Scaregrow** is a solar-powered precision agriculture system combining IoT sensors and AI to support real-time, data-driven farming. The system monitors soil moisture, pH, humidity, and temperature, transmitting data to a mobile app that advises farmers on irrigation, crop protection, and planting schedules. Through AI-powered photo detection, farmers can identify pests and diseases early, reducing chemical use and losses. Scaregrow's solar design ensures reliable use in off-grid communities while cutting energy costs.



IMPACT

- **Productivity:** 75+ farms piloted; 100+ farmers reached; yields up 25%, pesticide use reduced, water use down 30%.
- **Income & Jobs:** Farmers' incomes up 20%; 30+ direct jobs created in assembly, tech, and data services.
- **Gender Inclusion:** 55% of Scaregrow users are women.
- **Future Goals:** Reach 30,000 farmers, create 120+ new jobs, and save 30 million liters of water annually by 2027.



BUSINESS MODEL

Scaregrow operates on a **subscription model**, offering installation, training, and continuous advisory support. Green Eden locally produces and maintains sensors to create skilled jobs and lower service costs. Its goal is to build a connected agri-data ecosystem across Nigeria and neighboring countries.



FUNDING & SUPPORT

- **Self-Funding:** \$50k for prototype development.
- **Flour Mills of Nigeria:** ₦3M (~\$3,500) grant for rural expansion.
- **COLEAD:** \$16k technical assistance for R&D and training.
- **Heifer International:** \$8k grant for community engagement.
- **YouthADAPT:** Support to deploy 150+ sensors and train women/youth.



FUTURE OUTLOOK

Green Eden seeks **\$1M in blended finance** by 2025 to scale Scaregrow across sub-Saharan Africa and expand local sensor production.



"Scaregrow equips farmers to adapt to climate stress in real time—using data to protect soil health, cut losses, and increase earnings." — Stephanie Meltus



INNOV TECH BENIN (Benin)

FOUNDER
Ezin Bienvenu

Founder
Sector: Agriculture

SDG's



PROBLEM

In Benin, land degradation, drought, and heavy dependence on chemical fertilizers are depleting soil nutrients, polluting water, and increasing greenhouse gas emissions. Farmers face rising input costs, declining yields, and reduced soil fertility—undermining livelihoods and food security, especially in rural areas struggling to adapt to climate change.



SOLUTION & INNOVATION

INNOV TECH BENIN produces **organic fertilizers and compost** from agricultural and organic waste, restoring soil fertility and promoting sustainable farming. The compost improves soil structure, water retention, and resilience during dry seasons while cutting methane emissions from decomposing waste. Demonstration farms have shown up to **20% higher tomato yields** and healthier crops with fewer pests. This approach not only enhances productivity but also reduces pollution and supports circular economy practices.



IMPACT

- **Employment:** Created 5 permanent and 15 temporary jobs, empowering youth and women through roles in production, logistics, and field operations.
- **Farmer Outreach:** Partnering with 23 farmer cooperatives (currently 7 active, targeting 50), providing training, input access, and market linkages to strengthen local agricultural value chains.
- **Environmental Impact:** Restored 40% of degraded farmland in target zones by promoting organic soil enrichment and reducing waste disposal to dumpsites, contributing to a cleaner, more productive ecosystem.
- **Social Benefits:** Improved soil fertility and community health, cut rural pollution, and created new income streams that are helping to reduce rural–urban migration and enhance community resilience.



BUSINESS MODEL

The enterprise manufactures and sells organic compost and fertilizers to cooperatives and farmers, while conducting **training and awareness programs** on sustainable soil management. Revenue comes from direct fertilizer sales, with plans to expand into vegetable production and other agricultural services. INNOV TECH BENIN's circular model converts waste into value, strengthening both local economies and environmental stewardship.



FUNDING & SUPPORT

- **YouthADAPT Grant:** \$80,000 — established production facilities and procured key equipment.
- **Equity Investment:** \$10,000 in founder and partner equity.
- **Supplementary Grants:** \$5,000 from supporting projects and programs.
- **Revenue Growth:** \$45,953 in 2023, projected to reach \$75,049 in 2024, showing rising market demand and sustainability.
- **Future Financing Goal:** Plans to mobilize **blended finance** (grants, equity, and loans) to scale production, enhance compost technology, and strengthen operations.



"Our organic fertilizers and compost restore soil health and empower farmers to produce sustainably and secure their livelihoods." — Ezin Bienvenu



FUTURE OUTLOOK

INNOV TECH BENIN aims to expand across Benin, create 10 additional jobs, and increase farmer beneficiaries by 25% within two years. Scaling will focus on higher production capacity, improved compost quality through R&D, and partnerships that advance soil restoration, climate resilience, and rural livelihoods.



IrriHub KE (Kenya)

FOUNDER

Eric Onchonga

Founder

Sector: Agriculture

SDG's



PROBLEM

Over 96% of Kenya's smallholder farmers depend on rain-fed agriculture, leaving them highly vulnerable to droughts, erratic rainfall, and heat stress. Many cannot afford modern irrigation systems, while diesel pumps remain costly and polluting. This results in crop losses, food insecurity, and declining incomes—especially for women and youth who lack access to affordable, climate-smart technologies.



SOLUTION & INNOVATION

IrriHub KE provides **solar-powered irrigation systems** that integrate drip irrigation, rainwater harvesting, and IoT-based monitoring. Through a mobile app, farmers receive real-time data on soil moisture, temperature, and weather, enabling precise irrigation and reduced water use. The **pay-as-you-go model** makes clean irrigation affordable for smallholders while cutting emissions and improving resilience to drought.



IMPACT

- **Farmer Reach:** Equipped **3,572 smallholder farmers** with **solar-powered irrigation systems**, enabling year-round production and improved climate resilience in dryland areas.
- **Employment:** Generated **19 direct** and **307 indirect jobs** across **manufacturing, distribution, and maintenance**, fostering youth employment and technical skill development.
- **Environmental Gains:** Saved approximately **691 million liters of water** and **avoided 29,000 metric tons of CO₂ emissions** through efficient, clean-energy irrigation solutions.
- **Future Goals:** Aims to reach **10,000 farmers**, create **40 direct** and **500 indirect jobs**, and **expand operations across multiple Kenyan counties** to deepen rural impact.



BUSINESS MODEL

IrriHub KE blends **direct sales, leasing, and subscription services** for its IoT platform. Farmers can buy or lease solar systems, receive ongoing training, and access maintenance support. The enterprise also partners with governments, NGOs, and investors to co-finance installations, ensuring affordability and scalability through community distribution and local technicians.



FUNDING & SUPPORT

- **Opes Fund:** \$150,000 loan for inventory, staffing, and expansion.
- **Impacc VC:** \$160,000 equity investment for IoT research and team growth.
- **MEDA:** \$229,000 results-based financing grant to subsidize farmer adoption.
- **DeveloPPP:** \$100,000 grant for R&D and inventory.
- **P4G:** \$350,000 grant to prepare for a pre-seed investment round.
- **PREO:** \$188,000 grant to pilot irrigation-as-a-service.
- **CEI Africa:** \$141,000 loan for solar pump procurement.



"Our solar irrigation systems make farming profitable and sustainable—empowering farmers to adapt while conserving water and cutting emissions." — IrriHub KE Team



FUTURE OUTLOOK

By 2026, IrriHub KE plans to **expand to Uganda and Ghana**, integrating **AI-driven irrigation control** for higher precision. The company is pursuing **blended finance** (debt, equity, and catalytic grants) to scale operations, double its job creation, and strengthen climate resilience across East and West Africa.



Sustainable Builders (Zambia)

FOUNDER
Weluzani Joseph Thole
Founder
Sector: Agriculture



PROBLEM

Across sub-Saharan Africa, many SMEs struggle to access climate finance due to weak financial data, lack of risk assessment tools, and exclusion from formal value chains. In Zambia, Kenya, and Tanzania, this gap limits local enterprises in agriculture, transport, and energy from scaling climate-resilient solutions. Consequently, smallholder farmers face low productivity, market barriers, and limited adaptive capacity to droughts and erratic rainfall.



SOLUTION & INNOVATION

Sustainable Builders created the **KTZ SCALE Platform**, a digital tool that connects climate-focused SMEs with microfinance institutions, development partners, and government programs. The platform features a **climate finance risk assessment tool** that helps financiers evaluate and de-risk investments while a **learning hub** trains enterprises in financial readiness and adaptation strategies. By fostering data-driven, inclusive financing, the platform accelerates local innovation and climate resilience across Kenya, Tanzania, and Zambia.



IMPACT

- **Reach:** 15,400+ smallholder farmers supported through 13 local enterprises.
- **Adoption:** 65 enterprises and 17 MFIs onboarded across three countries, with financing facilitated for seven enterprises.
- **Results:** Agro-dealers financed to supply drought-tolerant seeds benefiting 3,500 farmers; aggregators expanded logistics reaching 2,500 more farmers.
- **Projection:** By 2030, the platform aims to support 100+ enterprises and indirectly benefit over 300,000 farmers.



FUNDING & SUPPORT

- **Tetra Tech (USAID):** \$100,000 grant for logistics, training, and platform development.
- **Zambia Industrial Commercial Bank:** \$50,000 loan to establish a research and innovation center.
- These investments have strengthened the company's financial performance and credit standing with local banks.



BUSINESS MODEL

The **KTZ SCALE Platform** functions as a blended-value marketplace linking technology, finance, and development services. It generates revenue from **subscription fees, service charges to financial institutions, and development partnerships**. The model integrates credit risk reduction with enterprise support and market access, ensuring both social and financial impact.



"By de-risking climate enterprises through data-driven finance, we're unlocking the potential of local innovators to build resilience from the ground up." — Joseph Weluzani



FUTURE OUTLOOK

Sustainable Builders plans to scale the **KTZ SCALE Platform** to over **25 African countries** within five years, evolving it into the **Africa SCALE Facility**. The company will pursue **blended finance**—grants, guarantees, and private equity—to expand infrastructure, support capacity, and drive adaptation finance. By **2030**, the platform aims to reach **300,000 farmers**, support **250 enterprises**, and mobilize **\$1.7 billion** in climate-aligned investments across the continent.



Initiative Noah (Central African Republic)

FOUNDER
Mbombate Yazouangbo Stephanie
Sector: Agriculture



PROBLEM

Rural communities in the Central African Republic face persistent poverty, food insecurity, and unemployment worsened by drought and land degradation. Over 60% of the population lives in rural areas with limited access to finance, training, and technology. Youth and women, often excluded from formal economic activities, face precarious work or migration pressures, while gender-based inequalities deepen social and economic vulnerability.



SOLUTION & INNOVATION

Initiative Noah promotes **organic agriculture and green jobs** through bio-based food production that replaces chemical fertilizers with large-scale composting systems. The enterprise integrates **vocational training, agro-processing, and renewable energy** to improve soil fertility, food security, and employment. By training women and youth as self-reliant farmers and entrepreneurs, Initiative Noah builds local adaptive capacity to climate change while reducing waste and strengthening community resilience.



BUSINESS MODEL

The organization follows a **hybrid model** that combines **agricultural production, agro-processing, and vocational training**. It generates revenue from the sale of organic products, processed foods, and paid training programs, complemented by grants and private partnerships. Profits are reinvested in expanding green infrastructure, training centers, and employment creation programs for rural youth and women.



"Our mission is to empower youth and women through green jobs and organic farming—transforming challenges into opportunities for resilience." — Initiative Noah Team



IMPACT

- **Employment:** 11 direct jobs (6 men, 5 women) and 393 indirect jobs (158 men, 235 women) created.
- **Training:** 500 youth trained in agriculture and food processing (50% women, 30% returnees), with 300 placed in jobs or self-employment.
- **Entrepreneurship:** 150 people trained in agribusiness; 100 gained direct employment.
- **Community Engagement:** 600+ people reached through awareness programs on vocational training and climate-smart agriculture.
- **Institutional Growth:** 16 administrative staff and 422 volunteers support expanding operations across prefectures.



FUNDING & SUPPORT

- **YouthADAPT Grant:** \$100k for production, jobs, and land for training center.
- **SKILL UP Project:** \$9,901 for youth employability.
- **ICRC:** \$20k food-supply grant for Ngaragba Prison.
- **Bank Loan:** \$8,250 (40% repaid); equity from founders and board.



FUTURE OUTLOOK

Initiative Noah seeks to raise **\$200,000** to construct a **training and agro-processing center**, creating **50 direct** and **1,000 indirect jobs** and benefiting **2,000+ people** through expanded agricultural and processing operations. By **2030**, it aims to scale across new prefectures, train 20 instructors, and launch three new support services, drawing inspiration from the **Songhai Center model** for climate-smart vocational training and regional collaboration.



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