

# Toolkit for Youth on Adaptation & Leadership



## MODULE 4

LEARNING FROM YOUTH-LED  
CLIMATE ADAPTATION SOLUTIONS:  
AFRICAN CASE STUDIES



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# Acknowledgments

The toolkit modules were written by Hayley Capp and Palash Mondal from the CARE Climate Justice Center, in collaboration with Marlene Achoki, Camille André, Ellen Chigwanda, Anna Conrad and helpful inputs from Robert Otim. The development process benefitted greatly from the support and insights of Brendon Bosworth, Ayesa Lemence, Diana Kaekebeke, Margaret Mellor, Nadia Rinaldi and Inge Vianen.

The project is developed under the leadership of Prof. Dr. Patrick Verkooijen, Chief Executive Officer of the Global Center on Adaptation. Adriana Valenzuela oversaw the development and implementation of the project, with contributions from Mike Girling, Aoife Fleming, Niccolò Delporto, Celine Novenario, Yuelin Delporto, Gabriela Diaz, Dr. Fleur Wouterse, Dr. Gül Tuçaltan and Ysabella Goedhart. Special thanks to the CEO's Youth Advisory Panel who shared valuable input along the way: Benjamin Strzelecki, Cathy Li, Desmond Alugnoa, Elysa Vaillancourt, Emily Vernall, Hayley Payne, Irfan Afridi, Joyce Mendez, and Neekhil Prasad.

We would like to recognize the valuable reflections and feedback that we received from the following youth organizations and young people on the toolkit outline and modules:

**Egypt:** Bioenergy Association for Sustainable Rural Development; The Egyptian Society of Scientific Researchers; Youth and Development Consultancy Institute; Arab Foundation of Young Scientists; Youth Love Egypt;

Hagar Gamal Farouk, Yehia Mohamed, Mahmoud Abdou Mahmoud Abdelmoula, Toka Safwat Abdelrady Mohamed, Aya El Sharkawy, Sayed Abdelmalek, Esraa Alaa Abdallah Elsadek, Ahmed Saber Ali Sakan, Samar Hassan Ahmed, Ahmed Fathy Ahmed

**Ethiopia:** Rotaract Club of Abugida; Rotaract Club of Debo; Rotaract Club of Haleta; Rotaract Club of Lewet; Rotaract Club of Wodiya Mado;

Peniel Hailu, Yeshak Abreham, Hinsene Kebede Dinka, Nahom Fekadu, Eyerusalem Kiflu Tarekegn, Endale Mitiku, Hanim Tesfaye, Naod Zerihun, Diborah Dereje, Tadele Biyadgelegn

**Ghana:** Strategic Youth Network for Development; Centre for Green Growth; Organisation for Indigenous Initiatives and Sustainability; Ghana Youth Environmental Movement; Progressive Excellence Youth Organization;

Patience Agyekum, Jacob Sarfoh Danquah, Peter Korsi Simpson, Samuel Duah, Ofosuhemaa Bentil, Obed Omane, Perk Pomeyie, Philp Bosomtwi Amoah, James Otchere, Emmanuel C. Ampong, Alfreda Owusu Nsiah, Innesa Banest Cole, Kwabena Twumasi, Mercy Kwofie, Stephanie Efram Akumah, Angela Awebu, Solomon Kangyi, Julius AWAREGYA, Joseph Addonna, Clifford Amoah

**Kenya:** Center for Resilience and Sustainable Africa; Declares Inspirational Group; Lake Victoria Basin Talent Development and Adolescent Health; Youth for Sustainable Development Goals Kenya; Youth for Sustainable Development - Nairobi Chapter;

Said Ngombo Salim, Emmily Achieng Okello, Jefferson Mudaki, Winnie Cheptoo, Christopher Nyamburi, Evelyne Atieno, Abigael Jerop Kiprono Kima, Denis Kiplagat, Robert Ruhii, Christine Ogola

**Malawi:** Native Youth Animators for Development; People in Action for Development; Youth Action for Environmental Management-Youth Organisation; Salima Link for Sustainable Community Development; Arise Youth Organisation; National Youth Network on Climate Change

Jonas January, Levison Chiku, David Mwasalapa, Tinenenji Scovah, Minsozi Molotali, Promise Adamson, Gift Khakana, Horace Pyam'dziko, Ireen Mmenya, Daudi Sabulani, Lovemore Mwimaniwa, Kondwani Ramsey, John Alumando, Esther Nsusa, Tiyanjane Thole, Thokozani .T. Matchere, Gift Phiri Annie Issah, Rahema Saidi, Jonathan Katengeza, Annette Mathiya, Noel Hoposi, Sumani Saidi, Francis Thanks Story, Miriam Josiki, Mathews Dunga, Chimwemwe Suwedi, Frank Kowera, Dorothy Kazombo Mwale, Dominic Amon Nyasulu

**Tanzania:** Catalyst for Social Action and Development Organization; African Youth Transformation; Forum CC; Community Hands Foundation; Tanzania Youth Coalition;

Simon Philbert Kimaro, Imelda Dominick Issangya, Sabrina Balwan, Oscar Munga, Joseph Isdory Darabe, Gladness Dominic Lauwo, Ruth Makolobela, Paul Makoe, Samson Tarimo, Getruda Luvuya

**Uganda:** Network for Active Citizens; Youth Advocacy and Development Network; YouthGoGreen; Biodiversity Hub International; United Children Integrated Development Action Uganda;

Derrick Emmanuel Mugisha, Irene Natukunda, Edwin Muhumuza, Denise Nabasiye, Kabugho Janet, Tusinguire Claire, Rwendere Peniel, Patricia Nakitto

**Zimbabwe:** Institute for Young Women Development; Youth for Innovation Trust; Youth Advocates Zimbabwe; Youth Initiatives for Community Development; Youth Empowerment & Transformation Trust.

Farai Mhlanga, Constance Maseko, Andrea Medaas, Nancy Likiripa, Farai Meki, Gugulethu Ncube, Tinotenda Banda, McAuthur A. Mkwapatira, Tsitsi L. P Masvusvu, Kudakwashe Ronny Makanda, Tadiwanashe Maeni

CARE staff from country offices in Egypt, Ethiopia, Ghana, Kenya, Malawi, Uganda, Tanzania and Zimbabwe, thank you for your dedication and commitment throughout this project.

We would also like to make a special mention to others who provided valuable contributions to the development of the toolkit, including the following young leaders: Abdallah Emad, Ahmed Fathy, Basma Sobhi, Christine Ogola, Deon Shekuza, Mariam Kabamba, Mclarence Mandaza, Mhlonipheni Sakala Ncube, Mohamed Maray, Ormiel Maganga, Rahma Diaa, Stephanie Efram Akumah, Teddy Taylor and Yared Abera.

Website development and design: Ruby Studio  
Toolkit PDF design: Engine Branding  
Infographics: DesignDoppel  
Videos: Makmende  
French Toolkit: Hortense Charmasson, Mathieu Lecarpentier and CARE France  
Arabic Toolkit: Mostafa Oraby and Amal Abousherif

## Acronyms

<b>ASAP</b>	The Adaptation for Smallholder Agriculture Programme
<b>CBA</b>	Community based adaptation
<b>CCA</b>	Climate change adaptation
<b>CIS</b>	Climate Information Services
<b>COP</b>	Conference of the Parties
<b>COY</b>	Conference of Youth
<b>CRA</b>	Community Risk Assessment
<b>DRM</b>	Disaster Risk Management
<b>DRR</b>	Disaster Risk Reduction
<b>EAC</b>	East Africa community
<b>ECOWAS</b>	Economic Community of West African States
<b>GCF</b>	Green Climate Fund
<b>GHGs</b>	Greenhouse gases
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>JPA</b>	Joint Principles for Adaptation
<b>LAP</b>	Local Adaptation Plans
<b>LDCF</b>	Least Developed Countries Fund
<b>LLA</b>	Locally Led Adaptation
<b>MDGs</b>	Millennium Development Goals
<b>NAP</b>	National Adaptation Plan
<b>NAPA</b>	National Adaptation Programs of Action
<b>NDC</b>	Nationally determined contribution
<b>NGOs</b>	Non-Governmental Organizations
<b>PPCR</b>	Pilot Program for Climate Resilience
<b>PSP</b>	Participatory Scenario Planning
<b>SCCF</b>	The Special Climate Change Fund
<b>SDG</b>	Sustainable Development Goal
<b>SIDS</b>	Small Islands Developing States
<b>SMART</b>	Specific, Measurable, Achievable, Relevant and Time-bound
<b>UNEP</b>	United Nations Environment Programme
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change

# WELCOME TO THE TOOLKIT FOR YOUTH ON ADAPTATION & LEADERSHIP!

## Who is this toolkit for?

Climate change is reshaping the world young people have inherited and they will bear the costs in the coming decades. However, young people are often excluded from taking on leadership roles and engaging in decision-making activities related to climate change adaptation. This Toolkit for Youth on Adaptation & Leadership equips young people with the knowledge and skills to engage in climate adaptation policy, advocacy and action. This toolkit uses the terms “youth” and “young people” to refer to people between 15 and 35 years old.

## What you will learn

The toolkit covers essential materials and offers practical guidance for how you, as a young person, can take part in adaptation policy processes, lead advocacy campaigns, and approach adaptation with an entrepreneurial mindset. It provides tools for designing and implementing your own climate change adaptation actions so that you can be part of the solution to the climate crisis.



The “Toolkit for Youth on Adaptation & Leadership” is a project under the Global Center on Adaptation Youth Leadership Program, developed by the CARE Climate Justice Center with the financial support of Norad. It came together with input from young people who, like you, are concerned about the impacts of climate change and have faced challenges when advocating and taking adaptation action.

## How to use the toolkit

The toolkit includes eight modules:



### 1 Understanding climate change



### 2 The basics of vulnerability and climate change adaptation



### 3 Vulnerable groups and climate adaptation planning



### 4 Learning from youth-led climate adaptation solutions: African case studies



### 5 Developing soft skills for youth leadership in adaptation



### 6 Engaging in climate adaptation policies: local, national, and international



### 7 Designing and implementing your adaptation advocacy strategy



### 8 Designing your adaptation action

## Each module contains four sections:



**Warm Up** is the place to start. This provides an overview of the module's key concepts, based on the latest research and best practices. It highlights tools you can use to apply what you have learned, and develop your leadership skills.



**Heat Wave** will deepen your understanding. Find links to supporting scientific research, important publications, and tools for exploring and applying key concepts.



**Bright spark** is the place to get inspired. Read case studies, watch videos, and listen to podcasts about young climate leaders to get fired up for your own climate change actions!



**Cool Down** is your last stop. Here, you have space to test your knowledge (with a short quiz) and consider how you can apply what you have learned to your own climate action.

## MODULE 4

### LEARNING FROM YOUTH-LED CLIMATE ADAPTATION SOLUTIONS: AFRICAN CASE STUDIES



In this module, you will learn about examples of inspirational youth-led climate adaptation solutions in Africa. The module also explores what makes a climate adaptation solution a success and showcases what can be learned from existing initiatives.

## What will I learn?

### By the end of the module, you will:

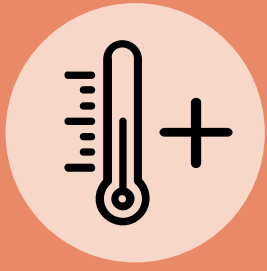
- Be knowledgeable about some innovative youth-led climate adaptation solutions across Africa.
- Understand how to apply lessons learned from existing youth-led adaptation initiatives to your own climate adaptation actions.
- Be able to identify potential challenges to overcome when designing and implementing youth-led climate adaptation solutions.
- Know more about some of the opportunities for innovating with Climate-Smart Agriculture.

## Glossary

Term	Definition	Source
<b>Climate-Smart Agriculture (CSA)</b>	Climate-Smart agriculture (CSA) is an integrated approach to managing landscapes—cropland, livestock, forests and fisheries — that address the interlinked challenges of food security and climate change.	<a href="#">The World Bank (2021)</a>
<b>Hydroponics</b>	Hydroponics is a method of growing plants using mineral nutrient solutions in water without soil.	<a href="#">University of Illinois Extension (nd)</a>



Young entrepreneurs of Kimplanter Seedlings and Nurseries training Maasai women to establish climate-smart vertical kitchen gardens where nutritious vegetables can grow with minimal water. Credit: Global Center on Adaptation.



# Warm Up

## What it takes it be a leader: insights from six African adaptation innovators

In these interviews, six young leaders share valuable advice on what it takes to make it as an entrepreneur with bright ideas for adaptation solutions. The featured trailblazers are some of the winners of the 2021 and 2022 African Youth Adaptation Solutions Challenge (also known as the YouthADAPT Challenge), an annual competition for youth-led enterprises (50% women-led). It is jointly organized by the Global Center on Adaptation, the African Development Bank and Climate Investment Funds.

Learn from their experiences and get inspired for your own adaptation actions!

**NOTE:** In this document, we share shortened versions of the original interviews. To read the interviews in full, please visit the Toolkit website.



## Juveline Ngum, Founder and CEO of BleaGlee (Cameroon)

### Tell us more about the project

BleaGlee is a waste management and recycling company providing software for drones to quickly detect poor waste disposal in drainage channels, fields and other physical sites. We work with indigenous waste collectors and youth environmental groups (eco-groups) to collect the waste, [adhering to] hygienic standards, and then properly dispose of it, or sell it to recycling companies.





BleagLee uses drones to find waste in drainage channels, which is then collected and recycled. Credit: Supplied by BleaGlee.

### **What inspired you to start the project?**

As a teenager, I experienced firsthand the effects of poor waste disposal, causing floods in my community and respiratory issues when burned. Overwhelmed by extreme poverty in Western Cameroon and the audacious levels of waste pollution, I began the journey of [finding] an “eco-solution” to reduce waste pollution and poverty. My co-founder and I then designed the waste management tech solution after independent research and studying a publication by the World Health Organization which showed that improper waste disposal is a major cause of multi-hazard scenarios.

### **What were some of the main challenges you faced (in the initial phase and/or throughout)?**

Some of Cameroon’s most marginalized people pick untreated waste to try and make a living. These waste pickers, many of them women, often live below the poverty line, work in appalling conditions, and are shunned by society. We are overcoming these challenges by onboarding these marginalized people in a more “formal” way to work with us.

We provide training on how to collect waste with hygienic standards, provide them with personal protective equipment, and then empower them to work part time or full time to collect waste with us. This creates new job opportunities for low-income people and provides dignified livelihoods for them.

### **What were some of the lessons learned?**

Before, many people thought that waste was worthless. But now, they see that waste can be turned into wealth. Trash is treasure, garbage is gold. If properly segregated and managed, so much good can be derived from waste: livelihood, cleanliness, no floods, no water

contamination, protected environment, more productive lands for people rather than for landfills and dumpsites, and more savings from reduced use of gas-driven garbage trucks, all contributing to climate resilience.

### **What recommendations do you have for your peers who would also like to start an initiative?**

First, be passionate about what you want to do. Starting an initiative is not easy and you're going to be in it for the long run, so make sure you're highly committed through the ups and downs. Let your passion shine through. Your clients, partners and co-workers will see it in your eyes and feel it in your actions.

Second, have a plan and frame your passion in a structured and effective way. You need to take time to think and reflect on where you plan to take your initiative in the months to come. Make sure that you have a plan clearly laid out on paper. You should also be able to explain your plan in a clear and concise way.

Finally, be open to advice. You may already demonstrate leadership or management skills, but that doesn't mean you know it all. People will respect your willingness to heed advice and learn, and your curiosity and openness.

### **Chris Ayale Wakomya, CEO of KivuGreen (DRC)**

#### **Tell us more about the project**

KivuGreen is a web-mobile and SMS-USSD platform that connects small-scale farmers to markets and agricultural information such as agricultural weather, market prices and advice on responsible, profitable



Chris Ayale Wakomya, CEO of KivuGreen.  
Credit: Supplied by KivuGreen.

and sustainable agriculture in the face of climate change. This innovation works with or without an internet connection and with or without a smartphone.

### **What inspired you to start the project?**

The suffering of the farmers. I, as an elder son of a small farmer, noticed that after each harvest season my father always had trouble selling his produce. In the value chain, he had several intermediaries who set the prices. He had difficulty knowing when he would or would not get rain and this caused a huge loss in agricultural inputs. And he didn't know when, how and where to plant a crop or how to select a good seed for a given location.



KivuGreen is a web-mobile and SMS-USSD platform that connects small-scale farmers to markets and agricultural information. Credit: Supplied by KivuGreen.

### **What were some of the main challenges you faced (in the initial phase and/or throughout)?**

- Lack of funding for the implementation.
- Having a competent workforce.
- How to find a business model.
- User experience of small farmers too low.
- Literacy of smallholder farmers.
- Lack of information about the negative effect of climate change by farmers in their sectors.

### **What were some of the lessons learned?**

The agricultural sector is seriously threatened by this great challenge of climate change. It is important that agriculture is adapted to the unpredictability of the current climate by providing more technological solutions for increasing agricultural productivity, yield and profitability to improve food security and boost the rural economy. Digital platforms and the use of a mobile phone remain an easy way to deliver innovations to beneficiaries.

### **What recommendations do you have for your peers who would also like to start an initiative?**

Before bringing a solution into the climate change framework, it is prudent to make a good analysis of the problem by organizing field visits in the areas of your beneficiaries. This will help you develop a solution that adapts to the local context and to find a solid economic model.

## Carolyne Mwangi, founder and CEO of Kimplanter Seedlings and Nurseries (Kenya)

### Tell us more about the project

Kimplanter Seedlings and Nurseries Ltd is based in Kenya and operates from Ruiru Sub-County, Kiambu County. The company buys certified seeds from reputable seed companies, sows them in propagation trays, takes care of them for the nursery stage and, when they are ready, sells them to farmers ready to transplant seedling/ young crops. Kimplanter Seedlings provides drought-resistant seedlings that can grow in harsh climatic conditions.

### What inspired you to start the project?

I started farming at a young age as a hobby. As I advanced in the industry, I grew concerned with the many challenges affecting smallholder farmers. I identified a gap in access to good quality seeds, farm inputs and lack of knowledge on crop management practices. These challenges and other underlying factors, such as drought, heat spells and floods, leave farmers very vulnerable to low yields, losses and extreme poverty. Having interacted with the farmers about these problems, I picked a niche in seedlings propagation to solve the problem by offering farmers a healthy start in their farming project.



Carolyne Mwangi, founder and CEO of Kimplanter Seedlings and Nurseries, a seedlings propagation company specializing in horticultural crops, fruit and tree seedlings. Credit: Supplied by Kimplanter/HefPix.

### **What were some of the main challenges you faced (in the initial phase and/or throughout)?**

Limited capital investment for infrastructure and working capital, incapacities in research development, and lack of other resources, such as land and reliable sources of water. We have overcome these challenges through priority placement measures, such as plowing earnings into the business, leasing instead of buying land, and adopting renewable energy for our water irrigation needs. Our big break, however, was winning the YouthAdapt competition.

### **What were some of the lessons learned?**

- Always conduct needs assessments for all the innovations and new products.
- Understand your market segment and market niche.
- Be dynamic and receptive to new trends.
- Be investor-ready and fundraise to grow the business.

### **What recommendations do you have for your peers who would also like to start an initiative?**

Climate change is a big menace. Let's curb its effects through adaptation and mitigation measures that are creative, innovative and unique to our generation. We are the future. There are many problems facing our continent. Analyze, pick one, and specialize in it to offer a solution.





Global Farms and Trading aims to enhance adaptation and resilience strategies among these farmers. Credit: Supplied by Global Farms and Trading.

## **Suleman Saamani Elisha Mahama, CEO of Global Farms & Trading (Ghana)**

### **Introduction to the project**

Our project is focused on building the capacity of smallholder farmers to strategically enhance climate actions and food security in Ghana and Africa as a whole. The project's main goal is to impart knowledge to smallholder farmers on climate change, its impact on the environment and the adoption of best mitigation strategies, so they can improve farming activities in rural settings. We aim to enhance adaptation and resilience strategies among these farmers.

### **What were some of the main challenges you faced (in the initial phase and/or throughout)?**

Access to information was one of the challenges. Some of the participants either did not want to give out information or gave inaccurate or wrong responses. Punctuality and meeting deadlines for activities in the project plan is a major challenge if strict supervision is not enforced.

### **What recommendations do you have for your peers who would also like to start an initiative?**

Putting farmers in small farmer groups or cooperative unions is recommended when engaging smallholder farmers in such initiatives, as it gives more reach in terms of farmer numbers or population.



Tahiru Jamila is the Co-Founder of Global Farms and Trading. Credit: Supplied by Global Farms & Trading.



Global Farms and Trading was inspired by the urgent need to educate smallholder farmers on climate change while adopting strategies to mitigate the impact of climate change on the farmers' livelihoods, especially women, who are the most affected. Credit: Supplied by Global Farms & Trading.

### **What qualities make an effective youth leader?**

An effective youth leader is one who is goal driven, confident in making decisions – especially tough ones – but also a team player with the mindset of looking out for others and lifting them up. Discipline, patience with him- or herself and other people, and a positive attitude to always deliver no matter the difficulties facing them make for an effective youth leader.

### **Some final tips and words of encouragement?**

Every failed experiment is one step closer to success!

## **Oluwadamilola Olowoseunre, founder and CEO, Pazelgreen (Nigeria)**

### **Tell us more about the project**

Our project is a cold storage system designed to be climate smart by making use of innovative technology and renewable energy, but at a lower cost than solar-powered options.

The waste from horticultural crops generates methane, a greenhouse gas known to be over 80 times more potent than carbon dioxide over a 20-year period. Methane emission sets the pace for warming in the near term and is responsible for about 25% of global warming. If we keep producing more methane without the proper cold chain infrastructures in place, we are not only aiding global warming, but we are spiraling deeper into other major challenges like hunger, malnutrition, nutrition deficiency and loss of income.

### **How long did it take you to develop this project? What were the different steps that you had to take?**

It's been a year and some months now and work is still in progress. Besides the normal procedures we are all aware of, like problem, market, and customer research, I had to prepare myself mentally and emotionally to deal with the tough terrain associated with the Nigerian business ecosystem.

I researched and consulted with experts in different fields that cut across the development of the product and the business as a whole. I sought key advisors. I make sure networking is always one of my top priorities. Everything is not all about having money. Strategic networks are needed to access the right resources needed to start, grow and scale.



After creating the vision, mission and core values, I formed a team that is also passionate about making the project a reality...I have also taken steps with regards to getting the best from various entrepreneurship programs that offer diverse values and support for success while putting the right structures in place.

### **What qualities make an effective youth leader?**

- Your journey as a leader begins as a faithful follower. Integrity is key!
- Be a leader that shows the way, leads the way, and walks the way.
- Be respectful but assertive when making your thoughts known.
- The ability to do “extra” in getting the job done.
- Be empathetic and have self-control.
- Know and understand your limitations and get help when necessary. This prevents unnecessary frustration which can seep into your leadership.
- Be openminded with an active listening ear.
- Understanding that leadership is a privilege not an entitlement.

### **Some final tips for your peers?**

It is a different level of satisfaction to be a part of something bigger than you. Give your very best always, contributing your quota to building solutions that will help to mitigate and adapt to climate change. We should see our solutions as not just products but a movement towards a better world.

## **Interview: Eric Onchonga, CEO of Irri-Hub IRRI-Hub (Kenya)**

### **Introduction to the project**

We provide climate-smart irrigation solutions for smallholder farmers in Kenya. We combine rainwater harvesting technology with solar-powered drip irrigation to help farmers increase their productivity and build resilience against climate change.

### **What inspired you to start this project?**

I grew up in a farm set-up and farmers around me planted sugarcane as their main cash crop. The sugarcane farmers had only one harvesting season and depended heavily on rain to get better yields. They had the potential for investing in short-term, high-value crops but they were limited by irrigation technology. That's how the idea of rainwater harvesting came about with the use of drip irrigation which is solar enabled.



Irri-Hub provides climate-smart irrigation solutions for smallholder farmers in Kenya. Credit: Supplied by Irr-Hub Ke.

### **How long did it take you to develop this project? What were the different steps that you had to take?**

It took me two years to develop the whole project. The steps we took were:

- Identify a technical team to help in developing the product.
- Develop a prototype.
- Identify farmers to use as a case study with our prototypes.
- Monitoring and evaluation of the system.
- Develop a marketing strategy and deployment strategy.
- Come up with a pricing model for the innovation.
- Release the product to the market and get customers to embrace it.

### **What are some of the lessons learned?**

We learned that we needed to come up with innovative financing models that would be used by farmers to afford the system. We also learned that farmers take time to make decisions before purchasing. Getting the right team that is aligned with your mission and vision is also very important for the success of a project. We also learned that farmers are keen on solutions that increase their productivity and income.

### **What qualities make an effective youth leader?**

You must be an inspiration to team members, provide a listening ear to every view given by team members, and have patience. Every activity has issues and every individual has flaws. As a team leader, you should learn how to accommodate the pressure as you focus on the main goal, and how to foster partnerships. Always be willing to listen and embrace different opinions and consider partnerships that help you leverage the other team members' strengths to achieve a common goal.

## Further inspiration from youth-led climate adaptation initiatives

Take a look at these short case studies to learn more about adaptation innovation.

### **Youthinkgreen: empowering youth to tackle sustainability challenges in Egypt**

Youthinkgreen focuses on fostering sustainability and entrepreneurship among young people via educational programs and events, pushing hundreds of entrepreneurs on the innovation road to create clean solutions to challenges in renewable energy, energy management, the energy-food-water nexus, water sustainability and waste management.

### **Rais'Eau: saving water in Morocco**

Rais'eau is a start-up that fights water wastage through production, sale and installation of technologies for recycling wastewater in households and public spaces. It introduces students and graduates to environmental and social problems. For example, Sara Ladouy, an entrepreneur from Orange Corners Morocco, has found an innovative way to increase the production of solar distillation systems. Sara's project has reduced water consumption in households and supported nine graduate students who have launched six prototypes to reduce water consumption.

### **Salubata Technological Solutions: turning plastic waste into shoes in Nigeria**

Salubata uses recycled plastic, taken out of waterways and the sea, as a raw material to make some seriously stylish shoes. Converting plastic to footwear reduces carbon emissions and reduces risk of flooding from blocked drainage systems. Salubata has processed 1 million tonnes of plastic waste and commits 5% of its profits to empowering women in local communities. Salubata was one of the winners of the 2021 YouthADAPT challenge.

### **Maima General Dealers Limited: making organic fertilizer from chicken waste in Zambia**

Maima General Dealers Limited farms poultry. They convert the manure from their chickens into organic fertilizer, which is sold to local subsistence farmers who cannot afford conventional organic fertilizer. They also collect and pay for waste from a network of other poultry farmers. The enterprise works with 1250 farmers who are clustered into cooperative societies consisting of 50 farmers each.



Testing soil health in Western Kenya. Credit: CIAT/Georgina Smith.

## Opportunities to innovate with digital solutions for Climate-Smart Agriculture

As digital technology continues to evolve at a rapid pace, there are many opportunities for using tech to solve agricultural challenges. Technologies for collecting, storing, analyzing, and sharing information digitally, including via mobile phones and the internet, can help improve the food system in the face of climate change. Such tools can be used to support Climate-Smart Agriculture (CSA).

### For example:

- Climate-smart tools can be linked through the “Internet of Things” to manage crop irrigation. For example, sensors collect data about soil conditions for a particular crop and transmit this information to farm irrigation systems. When there is not enough water in the soil, the water sprinkler turns on.
- Farmers can receive daily and seasonal real time alerts via SMS on impending weather events that could have negative impacts on their crops. This information empowers farmers with the knowledge to prepare and enables them to minimise their losses.
- Videos with agricultural advice can be shared with smallholder farmers, in facilitated settings, or via apps like WhatsApp.

Digital solutions can be a game-changer in sustainably boosting agricultural productivity and resilience in Africa. The technologies enable actors within the food system to make informed decisions, improve productivity and incomes, and achieve better nutrition, health and resilience outcomes. They can also be applied to food e-commerce, thereby helping to match buyers with sellers, shortening agricultural value chains, providing access to new markets, reducing transaction costs, and creating new business opportunities within the food system.

To encourage the uptake of digital tools in agriculture, the technologies should be user-friendly and require low-level skills and literacy for use.



# Heat Wave

## Young people at the forefront of climate action

**LEARN** more about the [African Youth Adaptation Solutions Challenge](#). The annual competition invites young entrepreneurs and micro, small, and medium-sized enterprises in Africa to submit innovative solutions and business ideas that can drive climate change adaptation and resilience.

**READ** about the Global Center on Adaptation's [Youth Advisory Panel](#). This is a gender and geographically-balanced team of young people built on the principles of openness, inclusion and transparency. The Panel provides strategic advice to the GCA on youth engagement to drive the adaptation agenda.

**READ** about the United Nations Secretary General's [Youth Advisory Group on Climate Change](#). This is a group of young people who are taking on the international climate change policy space and advising the Secretary General on how the United Nations can contribute to addressing young people's issues, needs and concerns.

**READ** an article from The Conversation on how [the terror of climate change is transforming young people's identity](#). The article talks about how young people across the world have mobilized to challenge the culture that has caused the climate crisis.

**READ** an article from UNDP about how different programs are [tapping into the power of young people for climate action](#). The article talks about how young people have been instrumental in international platforms on climate change, such as COP26.

**WATCH** a video by Aljazeera that asks "[Can young climate activists save Africa?](#)" (25:40). The video notes that young activists from countries including Uganda, Nigeria, South Africa and Kenya are demanding that domestic, regional and global decision makers take climate change more seriously, not least because younger generations will inherit a world profoundly altered by global warming.



# Bright Spark

Below you can find an overview of podcasts, videos, online interviews and articles on climate change challenges faced by young people in different parts across Africa and the actions they are taking to implement solutions. We hope you feel inspired!

## Podcasts

**LISTEN** to WWF South Africa's Youth Climate Champions (YCC) Podcast, which aims to support youth by being both a repository of resources, as well as a platform for various stakeholders to facilitate engagement on climate policy and activism issues. Available on Spotify and Anchor.

**LISTEN** to episode four of The Anthill podcast, Where does the youth climate movement go next? Locked out of conferences and company boardrooms, young people have tried to influence the international response to the climate crisis with strikes and protests. What effect does this youth activism have? And where will the movement go next? Available on Youtube, Spotify and other platforms.

## Videos

**WATCH** this video about Carolyne Mwangi (2:18), CEO of Kimplanter, to learn about the company's approach to propagating seedlings.

**WATCH** this video about BleaGlee (3:42) to learn more about how the company is using drones for waste collection in Cameroon.

**WATCH** this TEDx Talk, Africa's Youth as a solution to Africa's problems (13:13), by Emmanuel Nana Boakye Ababio, an advocate for sustainable development. Emmanuel delves into the characteristics of young people which make them ideal candidates for changing the continent's narratives and spearheading positive change.

**WATCH** this TEDx Talk, [The Demographic Dividend: Unlocking Africa's Youth Potential](#) (19:57) by Dr Julitta Onabanjo, Regional Director of the United Nations Population Fund, East and Southern Africa. Dr Onabanjo talks about the importance of investing in young people and outlines strategies that countries can employ to reap the demographic dividend and achieve sustainable development.

**WATCH** the Deutsche Welle video [Ivory Coast solutions to climate change, environmental protection](#) (4:35). It features three young environmental activists in Côte d'Ivoire looking for inclusive ways to stop global warming. They are involved in tree planting, awareness raising and developing new waste disposal solutions.

**WATCH** the video [On the frontlines of climate change in Zimbabwe](#) (2:04), featuring Nkosilathi Nyathi, a UNICEF climate activist from Victoria Falls, Zimbabwe. He walks us through changes he has seen first-hand as a result of climate change. He feels that although young people can see and feel the effects of climate change, many don't know what's happening and he wants to change that.

## Dialogues and webinars

**WATCH** this video of the [Earthday.org and African Youth Initiative on Climate Change \(AYICC\) Intergenerational dialogue](#) (33:38). The dialogue features questions about climate change from young people for government ministers.

**WATCH** this video from GCA of the [Youth Adaptation Dialogue: Skills for Climate Jobs and Entrepreneurship](#) (1:09). The session showcases young leaders who are taking advantage of the negative impacts of climate change and creating solutions that protect people and the planet.

**WATCH** this video from GCA of the [Youth Adaptation Dialogue: Role of Universities and Students in Locally Led Adaptation](#) (1:06:19). The session highlights case studies on Locally Led Adaptation from Uganda, Paraguay and the Netherlands.

## Articles

**READ** this article from UN Women Africa, [Four Youth Climate Activists Making a Difference in Africa](#). It features four women on the frontlines of climate change action.

**READ** CARE's article [Three Environmental Activists Making a Difference in Africa and Around the World](#). It features three young activists in Ghana, Kenya and Uganda who are taking action in their communities and mobilizing their peers to rally for climate justice.



# Cool Down

## Test your understanding *answers on page 26*

- 1. In Cameroon, the environmental innovators at BleaGlee use drones to do what? Choose the correct answer.**
  - (a) Monitor soil conditions
  - (b) Find waste in drainage channels and other areas
  - (c) Identify locations to plant drought-resistant seeds
  - (d) Monitor sea level rise
- 2. According to Chris Ayale Wakomya, CEO of KivuGreen in DRC, three of the main challenges for developing the KivuGreen platform were:**
  - (a) Lack of funding
  - (b) How to find a business model
  - (c) Lack of information about the negative effect of climate change by farmers
  - (d) Poor mobile phone connectivity in rural areas
- 3. Carolyne Mwangi, founder and CEO of Kimplanter Seedlings and Nurseries in Kenya, lists which of the following as her main lessons learned?**
  - (a) Always conduct needs assessments for all the innovations and new products
  - (b) Understand your market segment and market niche
  - (c) Be investor-ready and fundraise to grow the business
  - (d) All of the above.
- 4. Suleman Saamani Elisha Mahama, CEO of Global Farms & Trading in Ghana, explains that effective youth leaders have which of the following attributes?**
  - (a) They are goal driven
  - (b) They are confident in making decisions
  - (c) They are team players
  - (d) All of the above



**5. Fill in the blank. Oluwadamilola Olowoseunre, founder and CEO of Pazelgreen in Nigeria, says a leader should show the way, lead the way and ..... the way.**

- (a) Talk
- (b) Walk
- (c) Push
- (d) Dream

**6. For Eric Onchonga, CEO of Irri-Hub in Kenya, what were two of the main lessons learned about his company's climate-smart solutions for agriculture?**

- (a) Farmers aren't interested in climate change
- (b) Farmers care most about solutions that increase their productivity and income
- (c) Farmers don't trust Climate-Smart Agriculture
- (d) Farmers take time to make decisions before purchasing irrigation solutions

**BONUS QUIZ:** To further test your knowledge of climate change, do [this online quiz](#) developed by UNDP. It covers three topics:

- [The problem of climate change](#)
- [The impacts of climate change](#)
- [Mitigating the impacts of climate change](#)

## **Reflect and prepare for your climate adaptation action**

Based on what you have learned about how young people are leading on climate adaptation action in Africa, consider the following questions.

**Who or what inspired you most in this module?**

- Why did this person or project inspire you?
- How do you plan to use whatever inspired you in this module in your daily work and life?

**What climate adaptation solution would be helpful to have in your community?**

- If you were to develop such a project, what would be your first steps?
- What potential challenges do you foresee?

**What do you think is important for engaging young people in adaptation action?**

- Think about what you would need so that you, and other young people, could be engaged in climate adaptation actions in your community or country. Can you list those requirements? How might you access what you need?

## Answers

**1. Correct answer:** (b) Find waste in drainage channels and other areas.

**EXPLANATION:** BleagLee is a waste management and recycling company providing software for drones to quickly detect poor waste disposal in drainage channels, fields and other physical sites. BleaGlee works with indigenous waste collectors and youth environmental groups (eco-groups) to collect the waste, [adhering to] hygienic standards, and then properly dispose of it, or sell it to recycling companies.

**2. Correct answer:** (a), (b) and (c).

**EXPLANATION:** Chris Ayale Wakomya lists the following as challenges for developing KivuGreen: Lack of funding for the implementation, having a competent workforce, how to find a business model, user experience of small farmers too low, literacy of smallholder farmers, lack of information about the negative effect of climate change by farmers in their sectors.

**3. Correct answer:** (d) All of the above.

**EXPLANATION:** Carolyne Mwangi lists four lessons learned from starting and running Kimplanter. These include:

- Always conduct needs assessments for all the innovations and new products.
- Understand your market segment and market niche.
- Be dynamic and receptive to new trends.
- Be investor-ready and fundraise to grow the business.

**4. Correct answer:** (d) All of the above.

**EXPLANATION:** Suleman Saamani Elisha Mahama says an effective youth leader is one who is goal driven, confident in making decisions – especially tough ones – but also a team player with the mindset of looking out for others and lifting them up. Discipline, patience with him- or herself and other people, and a positive attitude to always deliver no matter the difficulties facing them make for an effective youth leader.

**5. Correct answer:** (b) Walk.

**EXPLANATION:** Oluwadamilola Olowoseunre advises that to be effective, a youth leader should be “a leader that shows the way, leads the way, and walks the way.”

**6. Correct answer:** (b) and (d).

**EXPLANATION:** When asked about lessons learned, Eric Onchinga says: We learned that we needed to come up with innovative financing models that would be used by farmers to afford the system. We also learned that farmers take time to make decisions before purchasing. Getting the right team that is aligned with your mission and vision is also very important for the success of a project. We also learned that farmers care most about solutions that increase their productivity and income.

## Endnotes

- 1 Interviews have been edited for length and clarity.
- 2 Digiteum (2019). How to Build an IoT-based Irrigation System for Smart Agriculture. <https://www.digiteum.com/iot-solutions-agricultural-irrigation-system/> (accessed January 2023).
- 3 United Nations Climate Change (no date). Use of Agro-Weather Tool for Enhancing Early Warning and Adaptation for Farmers – Kenya. <https://unfccc.int/climate-action/momentum-for-change/activity-database/use-of-agro-weather-tool-for-enhancing-early-warning-and-adaptation-for-farmers> (accessed January 2023).
- 4 AgDevCo (2019). Video as a tool to enhance farmers' skills and knowledge: A guide for agribusinesses working with smallholder farmers. [https://www.agdevco.com/site/assets/files/1423/agdevco\\_farmersvideoguide\\_jan2020.pdf](https://www.agdevco.com/site/assets/files/1423/agdevco_farmersvideoguide_jan2020.pdf) (accessed January 2023).
- 5 Global Center on Adaptation (GCA) (2021). State and Trends in Adaptation Report 2021. [https://gca.org/wp-content/uploads/2022/08/GCA\\_STA\\_2021\\_Complete\\_website.pdf](https://gca.org/wp-content/uploads/2022/08/GCA_STA_2021_Complete_website.pdf) (accessed November 2022).

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The "Toolkit for Youth on Adaptation & Leadership" is a project under the Global Center on Adaptation Youth Leadership Program, developed by the CARE Climate Justice Center, in consultation with youth organizations, and with the financial support of Norad.