




**Young Women's Grassroots Action
on Climate Change**

A young green plant with three leaves is in the foreground, slightly out of focus. The background shows a field of dark, rich soil with other small green plants growing. In the distance, there's a single tree on a hill under a clear blue sky.

In 2013, the Campaign for Female Education (CAMFED) launched a breakthrough initiative to train young women across sub-Saharan Africa to become Agriculture Guides - champions of climate-smart agriculture.

Agriculture Guides promote simple, low-cost technologies that can be implemented using minimal materials widely available in rural African communities. As a result, they have improved the productivity, sustainability and profitability of their own smallholdings and encouraged wide adoption of practical, affordable and locally-relevant climate-smart techniques such as intercropping and drip-irrigation using waste plastic bottles. They recognise and elevate the value of indigenous traditions such as inter-cropping.

Women's leadership on climate-smart agriculture has the potential to permanently transform entire communities by raising the productivity, sustainability and attractiveness of a career in agriculture. As role models, climate-smart Agriculture Guides are demonstrating that agriculture can be profitable, innovative and productive, and are inspiring young people to take the lead in building sustainable, resilient farming practices. They are also helping communities to take action to reduce greenhouse emissions by planting and protecting trees and constructing fuel-efficient stoves from local resources.

CAMFED works in a context where women - who provide much of the food in low income countries - lack access to land rights, financial resources, credit, and the techniques to work the land productively. Climate-smart Agriculture Guides will work together to train and support 50,000 more young women in rural Africa to run successful agri-businesses in rural Africa. This will bring improved productivity and sustainability to rural ecosystems, and new prosperity and jobs to marginalized communities, while supporting food security and climate change resilience.

In this booklet, we catalog the activities of young women climate-smart agriculture champions who continue to lead action on climate change in some of the most marginalized areas of Africa.



Clarah Zinyama, Zimbabwe

Clarah was the first member of her family to finish school, and the first to pursue higher education. From a marginalized rural community in Zimbabwe, she experienced poverty and hardship throughout her childhood. Clarah's parents both lived with a disability, and relied on subsistence farming to try and support their six children. Despite efforts to keep Clarah in school, funds and hopes for the future dwindled as time went on. There was little expectation that her life could be different from her parents', so Clarah felt great excitement and relief when she was selected to receive support from CAMFED. With secondary education came a renewed hope - that she could create a very different future for her family.

When she graduated, Clarah joined the CAMFED Alumnae Association, CAMA, a peer-support network for educated young women from marginalized backgrounds across sub-Saharan Africa. In 2014, Clarah was one of 14 CAMA members who travelled to EARTH University in Costa Rica to attend a tailored six-week course in Sustainable Agricultural Systems, which complements her degree in Sociology and Gender Development Studies, with integrated Agricultural Practices.

“I have taken voluntary action since 2014 to increase awareness of climate-smart farming first in six surrounding districts that, like mine, are on the frontline of climate change.”

Clarah has noted how weather patterns have become more extreme and unpredictable. “I noticed the issue of changes in season. It's now very hot, the sun is now very hot and when we are expecting the rain to come we find no rain. When we are expecting it to be cold it will be very hot. There was a paradigm shift in my farming when I returned from Costa Rica. I do horticulture, maize, potatoes, tomatoes, green pepper, legumes, and sweet potato. Before attending EARTH University, my techniques were very poor. I didn't have much knowledge of crop rotation. Also, I used to keep broilers (chickens) and to me, it was enough. Just like any other rural woman, I was just growing, thinking that was all I can do.”

Clarah has grown her poultry farm and, by 2019, was selling chicks in batches of 200 per month. She uses waste from her animal farm to sustain crop production (i.e. manure as organic fertilizer in her garden) and feeds her chickens with waste from her produce farm. “I am into value addition. I am growing groundnuts but I do not sell raw groundnuts to my customers. I produce peanut butter and use the waste from processing to feed my poultry.”

Clarah mentors rural smallholders - mostly women - across Zimbabwe to adopt climate-smart agricultural techniques and create a livelihood in an area with few economic opportunities.

“Young women at risk of early marriage receive mentoring and support from me to succeed at farming. I encourage them to look at the whole agriculture value chain - not just growing crops.”

Clarah also trains CAMA members in her district to collect paper waste from snacks to “make beautiful baskets from papers. So they are clearing the environment and making the papers useful.” Together with other CAMA Agriculture Guides, Clarah trains local school feeding groups on “cheaper, more efficient ways of poultry production, food processing, and horticulture. As these mothers are voluntarily and continuously supporting and feeding children in school with their own produce and proceeds, we encourage them to farm and produce sustainably.” Parent associations provide nourishment for primary schools throughout the school year, in districts characterised by stunting, hunger, and extreme poverty.

Her advice on food preservation is also taking hold. She says, “Pot-in-pot refrigeration works well in communities where temperatures are very high - for example in Shurugwi. The higher the temperature, the cooler the pot. They [parent associations, mostly women] are making use of it well. They are feeding the children. They are using it in secondary schools.”

Clarah brought her climate-smart expertise to global audiences at the 2019 RHS Chelsea Flower Show in London. Her powerful story - of taking action on challenges endemic to her rural context and the transformative power of female education - told through the CAMFED Garden, won the People's Choice Award and a Gold Medal in the “Space to Grow” category, and will live on at the Eden Project in Cornwall.



Beauty Gombana, Zimbabwe

Beauty was born into a large family in rural Zimbabwe. Like many others, their survival was dependent on a meagre income from market gardening. Tragedy struck when Beauty was only nine years old, and her mother died, leaving eight children bereft. Their daily struggle intensified when, six years later, their father also passed away. Beauty and her siblings would sometimes go for days without a proper meal. With no caregiver, hungry and grief-stricken, Beauty had no choice but to drop out of school. Those years of hardship and hunger sparked a remarkable fire within Beauty. She became determined to learn new skills, run a successful farming business and put food on the table every day. She married at 19 and moved to a nearby community, where she started farming and taking every opportunity she could to participate in local training sessions. It was at one of these that she encountered CAMFED and started working with other young women, members of the CAMFED Alumnae Association, CAMA.

Beauty shares CAMA's deep commitment to education, and bringing positive change to girls, young women, and communities. She joined the network in 2009. Winning the admiration of her peers, she was elected as CAMA District Chairperson in 2011. With training from CAMA, she became a mentor for secondary students under the CAMFED Learner Guide Program, achieving a vocational (BTEC) qualification, as well as becoming a Community Health Activist.

Beauty was supported by DFID through CAMFED to go to agricultural college in Mutare in 2016. Here, she developed a five-year business plan, detailing her plans to move from subsistence farming on a small plot of land to running an agricultural business - with a large greenhouse and drip irrigation systems - that would enable her to provide food, income, and employment for others.

Continually learning and innovating, Beauty trials different crops to assess the profits and other benefits. She now grows new varieties of maize and beans, which, through an intensified traditional breeding process, are enriched with iron, and therefore also higher in zinc. Through fortified crops such as these, Beauty has the potential to improve her yields, cope with climate change, and improve the health and nutrition of people in her community, particularly expectant mothers. She encourages her community members to incorporate her biofortified beans into their diets and takes her produce to a nearby clinic, selling to expectant and lactating mothers. This way, she cuts out middleman charges, selling improved produce at lower prices. Beauty donates produce to undernourished children in primary school and uses part of her proceeds to keep vulnerable local children in school - assisting with stationery, uniforms, and school levies. When she harvests vegetables, she works with school parent groups to cook for disadvantaged children once a week.

Beauty serves as a climate-smart Agriculture Guide in rural communities like her own. She proffers simple, locally-available solutions to climate extremes and teaches rural smallholders and secondary school students to intercrop (e.g. combine cereals with legumes); integrate crop farming with animal husbandry; grow flowers for additional income; and use water harvesting and conservation techniques in drought-prone areas. She teaches her community to reuse, reduce and recycle farm waste. In a community where "the impact of drought hinders progress in farming," she conserves water with harvesting pits and uses manure, compost, mixed cropping techniques, and biofortified seeds to preserve soil moisture, enhance soil nutritional content, and improve the nutritional value of her produce.

Beauty has gained prominence in her district as a successful farmer and is using her cutting-edge farming methods to help reduce poverty, eliminate hunger, improve nutrition and build resilience to climate change.

Beauty's farm was the primary inspiration for the award-winning CAMFED Garden at the 2019 RHS Chelsea Flower Show in London.



Esnath Divasoni, Zimbabwe

Esnath, a CAMFED Alumnae Association (CAMA) member and tertiary scholar at EARTH University, is a leading advocate for climate-smart agriculture practices. Having seen her community struggle more each year against the adverse effects of climate change, Esnath is committed to empowering farmers with the skills and techniques to mitigate these effects. In recent years, the global phenomenon of El Niño and La Niña have caused both drought and flooding, reducing crop yields. With so many people in rural sub-Saharan Africa dependent on subsistence farming, including her own family, she plans to work with other CAMA members to increase the awareness and practice of climate-smart agriculture.

“We all have to play our part, and with CAMA in every corner of the country, we can improve and reduce these effects faster and more effectively.”

While at university, Esnath maintains close contact with her community. She sends messages to her former secondary school and village to inspire younger girls to pursue education and leadership opportunities. During vacations, she visits communities in her home district, sharing her story with girls to show that no matter the background they come from, together they have the potential to break the cycle of poverty and achieve their dreams. She encourages farmers to mix crops such as maize and beans to enrich the soil, reduce water loss, and produce more from the same piece of land. Esnath champions climate-smart practices consistent with indigenous traditions in her community, and promotes sustainable animal production that minimizes land degradation. She believes that people are using “easy modern alternatives” (e.g. synthetic herbicides) but it is her aim to show her community that organic farming, using traditional techniques, is more sustainable and economically viable in the long-term.

Between August and December 2018, Esnath took up an internship with ADRA Zimbabwe, a local humanitarian agency, as part of her studies, focusing on resilient livelihoods. She worked with rural farmers who practice horticulture, beekeeping, grow small grains, and keep small livestock, giving technical advice, training them on sustainable farming methods, and assisting them to look for high-value markets for their produce. She also planned and monitored exchange visits, to support farmers to learn from one another.

Esnath has helped farmers in her community to mitigate the effects of adverse climate change with simple practices like mulching. She feels passionately that by helping communities, specifically women, to unlock more resources, they will be able to take the lead. She says: “75% of the farmers we are working with in the horticulture and livestock sectors are women. For small grains, it’s 60% women. Through this project, we reached more than 700 families. During my time there I also made sure that the farmers I worked with value and are motivated to educate their girls.”

During her internship, Esnath developed farming manuals that build on her community’s traditional techniques in horticulture, livestock, and sorghum farming.

Esnath wants to encourage women in her country to produce more with what is available and maximize output per hectare, while avoiding intensive practices. She advises smallholder farmers to recycle and get more from the same piece of land by using waste containers, old tires and other waste in their environment as garden beds. On her return, she wants to introduce insect farming - like most in her community, she has eaten insects all her life but has never produced them. As part of her course, she is simulating her local environment to produce crickets, and later mealworms. Her experience at EARTH University has helped her to think more creatively about opportunities in her home environment. In August 2019, Esnath took part in the Resolution Social Venture Challenge at the Baobab Summit in Rwanda, hosted by the Mastercard Foundation Scholars Program. She was successful in introducing her insect business idea, winning seed funding and a fellowship from the Resolution Project.

Esnath is keen to join the CAMA Agriculture Guide program, sharing everything she has learned at EARTH University with her community and country at large, developing women farmers into leading sustainable agri-business owners.



Judith Urayai, Zimbabwe

Judith developed from a girl who did back-breaking work on farms to pay her school fees to a role model and leader in her community. Supported through secondary school by CAMFED, Judith joined the cohort of 14 CAMFED alumnae in the CAMA network who participated in a tailored 6-week course in Sustainable Agricultural Systems at EARTH University, Costa Rica, in 2014. In 2015, Judith joined CAMFED's Learner Guide Program, and trained to deliver a tailored life skills and wellbeing program in her local school, and support vulnerable children to study, stay in school, and plan for their future. In 2016, CAMFED supported Judith's continuing studies at Mutare Polytechnic College, where she completed a course in poultry production.

Now, once a month, Judith conducts training for students from her local secondary school in integrating animal husbandry with crop farming. She teaches farmers in surrounding districts to make compost from farm waste and to combine contour ridges with cover crops to reduce erosion and conserve soil moisture. She has trained both men and women in Hurungwe, Matabo and Nkayi districts (some of the most marginalised areas of Zimbabwe) to preserve their produce using pot-in-pot refrigeration. She delivers training in the construction of energy-efficient stoves that use less firewood.

Judith delivers monthly training in sustainable agriculture at the village, ward and district level, and is passionate about working to create a healthier community that is able to support the next generation to go to school, succeed and step up as leaders of change.

Eva Damasi, Tanzania

Eva, a climate-smart Agriculture Guide from Kilosa District, runs a successful farming business selling her produce, and has used her rice demo-farm to train approximately 50 agripreneurs, mostly females. Since completing the tailored 6-week course in sustainable agriculture at EARTH University, Eva has taught young people and women farmers in rural communities to intercrop maize, sunflower, and pumpkins to reduce soil degradation. In an area characterized by poor rainfall, she teaches marginalized farmers to prepare the soil with organic manure and check soil structure before planting. She has also worked tirelessly with community leaders to ensure the provision of dustbins to reduce environmental pollution. Through CAMFED, Eva works on environmental conservation with schools, government officers at the ward level, the municipal council, and with traditional leaders. She has worked with a local school to plant flowers and trees. She feeds back her knowledge and skills to other CAMFED alumnae in the CAMA network, and continues to mentor other young women to launch and succeed at agribusinesses.

Together with other CAMA members, Eva helps ensure vulnerable children can remain in education, supporting them with school supplies and nutritious meals. "Last year we provided maize flour for porridge at Mkwapani primary school. About 50 marginalized children got food for one month." She adds: "My income has helped me to increase my capital, to support my family with basic needs and vulnerable children to get school needs."

Scaling climate-smart agriculture through partnerships

In Zambia, three CAMFED Alumnae Association (CAMA) Agriculture Guides, who impressed the Ministry of Agriculture with their grassroots activism, were invited to travel into the most remote areas of Isoka, Chinsali, Kaoma, Senanga, and Lukulu to deliver training on climate-smart agriculture. In just over a year they reached 402 women and 171 men directly. In 2019, one of them, Annie N'gandu from Chinsali, was nominated to attend training in land acquisition organized by the Development Organization For People's Empowerment. Her training covered the type of land available in Zambia, the process of acquiring land and how to sensitize communities on land acquisitions. She has since conducted sensitization training in Mutale village in Chinsali and held two follow-on meetings to assess the progress of her participants. Annie Mutiba, another pioneer Agriculture Guide from Zambia, currently runs a poultry farm and cultivates vegetables in her garden. She teaches CAMA members and a youth group to combine poultry farming with climate-smart gardening, helping them create livelihoods for themselves.



Mary Chitehwe, Zimbabwe

Mary grew up with a family that she describes as “too big and poor.” She took on a lot of responsibility in her formative years. Mary had to undertake casual labor to help cover the costs and materials required for her education. She remembers how she and her mother once worked for two weeks on a farm in exchange for a piece of cloth. When she was about to drop out of school at the age of 14, CAMFED stepped in to support her. Her mother would often work on other people’s farms in exchange for money or food. Another way of generating income was moulding bricks at the nearest primary school, in full view of the students, who were her children’s peers. Every weekend, Mary would carry a basket of tomatoes or onions on her head, and make a 7-kilometer journey from her house to the market.

Despite all the challenges, Mary developed leadership skills at school and served as a prefect for three years at secondary school . After school, she joined the CAMFED Alumnae Association, CAMA, and was elected district Chairperson in the Nyanga District. She also served at the national level as a Committee Member of the CAMA Board, lending her lived experiences to shape the network’s founding principles.

“My experiences made me a leader both at home and at school.”

Through CAMFED, Mary was supported to go on a six-week intensive course in Sustainable Agriculture at EARTH University in Costa Rica.

On her return from EARTH University, Mary established her own enterprise in her rural community in Zimbabwe. She plans ahead, selects crops to plant at different times of the year, and also grows in between seasons to enrich the soil and get more from the land in a non-intensive way. Previously, she was mono-cropping, but in order to maximize output and make more money while protecting soil quality, she combines maize with potato farming. In just over a year after her course, Mary was “growing potatoes three times instead of the usual once per year.”

Mary studies market trends and has since introduced animal husbandry to her farm business. Mary now has 13 sheep, 25 goats and 10 cows, and packages goat and cow milk for sale. She supplies to the local community, the Grain Marketing Board, and also sells her produce in Harare. Through mixed cropping, drip irrigation, and the use of cover crops, she encourages her community to conserve water, minimize erosion, and improve the nutrient content of the soil.

She has been generous with her knowledge by providing mentorship and on-farm training to over 600 CAMA farmers, and continues to inspire women in her community to go into farming. To date, Mary has trained over 150 people to build energy-efficient Patsari stoves, which help reduce the use of firewood and greenhouse emissions in her region. Attendees to her construction sessions include 15 CAMA members, who have cascaded this training in their own local areas. She also trained staff at a local early learning childhood center and local secondary schools, who use the stoves to reduce children’s exposure to fumes. Mary also encourages her community to use recycled materials and has assisted her local early learning center to make flower beds from old car tires.

“I have done justice in my district. I feel in my heart that I would continue doing it until I feel that women have been empowered. I need to move women in my society.”

CAMA Agriculture Guides have continued to train others with very little external funding, attesting to the robustness of the model.

Sharon Mayakayaka from Zimbabwe was equipped with skills in horticulture and inspired to start an organic farm business by two CAMA climate-smart Agriculture Guides. She notes: “I was given the knowledge and skills to focus on producing cash crops throughout the year. Right now, I’m growing vegetables such as covo, rape, tsunga, cabbage, onions, as well as beans, and I am continuously selling these products in my community. I have gone on to explore and supply fresh vegetables to take-aways in Nyanga town. Mary and Fungai gave me knowledge that has lifted me up and now my children are not starving because I’m managing to feed them, paying fees, buying clothes for them and even managing to contribute towards our district CAMA Fund, assisting other marginalized children in my community.”

Sharon is an example of what a robust cascade model can achieve, and is a role model herself to other young rural women in her district.

Malumbo Mkandawire from Malawi studied at EARTH University with CAMFED support, and is developing content that combines the innovative EARTH approach with the indigenous farming styles of their communities. Malumbo describes the EARTH model as fit for her and likes that “it encourages one to grow rather than buy.” She notes: “Agriculture is not just for the farmer. You can reach out and touch others in the community through training”.

Malumbo is currently interning at an animal production farm in Virginia, USA until December 2019. She has also received an offer for a Masters program at the University of Colorado on a partial scholarship. Her masters will focus on Environmental Management in Building Resilient and Sustainable Communities. Reaching people, responsibility, giving, respecting each other, and thinking globally, are just a few of the disciplines she has learned while at EARTH University and hopes to share these with her local community and country when she returns to Malawi. She would like to introduce planting in sacks and buckets to her community of travelers. She also hopes to apply her practical skills in biogas to reduce electricity costs for marginalized rural communities in Malawi.

Grace Amponsah from Ghana was supported through secondary school by CAMFED, and was the first of her mother’s children to attend secondary school. She is currently studying Agricultural Science and Natural Resources at EARTH University and recently launched Farmcom.org. Through this platform, Grace aspires to organize student-farmer outreach programs, demonstration farms and workshops on sustainable agriculture. She will also collaborate with agriculture science student volunteers in her native Ghana to create simple video tutorials for farmers on sustainable farming methods.

“It’s our duty to give back what we are learning. I am really learning a lot of things at EARTH University. We need to have an environmental plan for everything. I feel that I have to send the message to the people who need it most - the farmers - because just one person learning can really make a difference.”





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