



CRAFT

CLIMATE RESILIENT
AGRIBUSINESS FOR TOMORROW



CRAFT Kenya Impact stories



About the CRAFT Project

The Climate Resilient Agribusiness for Tomorrow (CRAFT) project in Kenya, implemented from 2018 to 2025, sought to strengthen the resilience and competitiveness of smallholder farmers and agribusinesses in the face of climate change by promoting market-led, climate-smart agriculture (CSA) solutions. This executive summary highlights the foundational steps and decisions that enabled the project's impact across Kenya.

During the inception phase (June 2018 – June 2019), CRAFT conducted extensive value chain selection and validation activities across 12 counties: Machakos, Makueni, Kitui, Tharaka Nithi, Meru, Embu, Nyandarua, Nyeri, Nakuru, Laikipia, Bomet, and Narok. The project focused on crops already grown by farmers but vulnerable to climate impacts and market fluctuations. Through consultations with stakeholders and county governments, green grams, sorghum, Irish potatoes, and common beans were prioritized for targeted support.

Subsequently, detailed climate risk assessments were conducted in collaboration with farmers, extension officers, research institutions, and value chain actors. The findings informed the development of Climate Resilient Agribusiness (CRA) briefs outlining adaptation strategies specific to each crop and county. These insights shaped the design and rollout of CSA practices across the targeted regions.

To drive private sector engagement, the Climate Innovation and Investment Facility (CIIF) was introduced to attract and support agribusinesses and cooperatives investing in CSA solutions. A five-stage selection process led to the onboarding of 9 SMEs and 5 cooperatives in Kenya, who co-invested in climate-resilient business models and technologies aligned with CRAFT's goals.

This Impact Storybook now turns the spotlight on farmers and their journeys of transformation, showcasing how the business champions supported by CRAFT have embraced CSA practices through Trainer-of-Trainers (ToT) approaches facilitated by the project's technical teams. These stories reveal how knowledge sharing, local leadership, and innovative partnerships have empowered farming communities to adapt to climate change, increase productivity, and build sustainable agribusinesses.



About SNV

SNV is a global development partner, deeply rooted in the countries where we operate. We are driven by a vision of a better world: A world where across every society all people live with dignity and have equitable opportunities to thrive sustainably. To make this vision a reality, we need transformations in vital agri-food, energy, and water systems. SNV contributes by strengthening capacities and catalysing partnerships in these sectors. We help strengthen institutions and effective governance, reduce gender inequalities and barriers to social inclusion, and enable adaptation and mitigation to the climate and biodiversity crises.

Building on 60 years of experience we support our partners with our technical and process expertise and methodological rigour. We do this in more than 20 countries in Africa and Asia with a team of approximately 1,600 colleagues. By being adaptable and tailoring our approaches to these different contexts, we can contribute to impact at scale, resulting in more equitable lives for all.



Enabling
Environment

A. Breaking the climate-conflict nexus through Climate-Smart Agriculture - Starlight Farmers Cooperative

Background and introduction.

Starlight Farmers' Cooperative Society, located in Kuresoi North Sub- County, Nakuru County, was established in response to community conflicts in 2008. Officially registered in 2014 under the Kenyan Cooperative Act, the cooperative now consists of 720 smallholder farmers and supporting 4,000 farmers. Starlight Cooperative was formed to foster peaceful coexistence through economic empowerment by engaging members in Climate-Smart Agriculture (CSA) and cooperative business model. The Cooperative is governed by 9 board members and 3 Supervisory Committee members who are supported by 5 salaried staff members, 2 interns, 5 employees under commission contracts and 40 Trainers of Trainers (ToTs) whose role is service provision to farmers. Under the SNV CRAFT Project, Starlight Cooperative integrated CSA practices and technologies in the potato value chain. This initiative later expanded to include dairy value chain improving milk collection, bulking, and marketing while also offering extension services to its members.

Fostering peace through sustainable agriculture

Starlight Cooperative has demonstrated that CSA is not only an agricultural solution but also a powerful tool for peacebuilding. Climate change exacerbates competition for natural resources, disrupts livelihoods, and contributes to conflicts in fragile rural areas. By adopting CSA, Starlight Cooperative has broken the cycle of climate-induced conflicts by improving agricultural productivity and ensuring resource sustainability. Through its initiatives, the cooperative has promoted climate resilience, economic stability, and social cohesion, reducing tensions among members who previously experienced resource-related conflicts.



Starlight's Nexus between CSA and Peace



GESI Approach

By fostering the 'leave no one behind' approach in sustainable agriculture, Starlight Cooperative ensures that women, youth, and persons with disabilities (PWDs) actively participate in CSA initiatives by facilitating access to training, access to inputs, and market linkages. The cooperative has a youth council which comprises 17 members who participate in CSA activities. Among these youth council members are 13 trained spray service providers. This inclusive approach reduces economic disparities, enhances social cohesion, and empowers marginalised groups to contribute to climate resilience.

Climate-Smart Conflict Resolution

By applying a conflict-sensitive approach, Starlight Cooperative integrates the “Do No Harm” principle into its CSA activities. Through shared economic opportunities such as seed potato production, dairy farming, and agroforestry, farmers from different backgrounds collaborate, fostering trust and reducing tensions over natural resources.

Policy and Institutional Synergy

Starlight Cooperative has contributed to the strengthening of policy issues through the multi-stakeholder partnerships by working with government agencies (KEPHIS), financial institutions (Cooperative Bank), and development partners. The cooperative participated in KEPHIS forum deliberating on strategies for fighting fake seeds which was held on 21st January, 2025. Through the County Government of Nakuru, the cooperative contributed in the formulation of the 2019 Irish potatoes regulations. It has also partnered with the County government of Nakuru, Crops Department on training of TOTs on CSA.

These collaborations enhance CSA adoption by improving access to climate finance, policy support, and sustainable farming training, ensuring long-term resilience.

Resilient Livelihood and Economic Stability

To promote economic stability, Starlight Cooperative enhances climate-smart farming techniques and market-driven approaches that improve productivity and income. By supporting smallholder farmers in adopting CSA practices, accessing finance, and linking them to reliable markets. The cooperative started Starlight Wakulima SACCO in July 2024 to address the gaps in farmers access to finance to purchase agro-inputs and fertilizers. Currently the SACCO has a membership of 235 who have aquired loans to not only purchase farm inputs but also cater for other household needs.



Key CSA Practices and Technologies Promoted

Starlight Cooperative has successfully implemented several CSA practices and technologies, improving climate resilience, food security, and conflict mitigation:

- **Climate-Smart Seed Potato Production:** Adoption of certified seed varieties like Shangji, and Unica to improve productivity and 2 diffused light storage (DLS) with a capacity of 5 tonnes each reducing post-harvest losses.
- **Soil and Water Conservation:** Use of minimum tillage, contour farming, mulching, and cover cropping to enhance soil fertility and moisture retention.
- **Integrated Pest and Disease Management (IPM):** Application of biopesticides, organic inputs, crop rotation, and intercropping to manage pests and diseases sustainably. **Climate-Smart Dairy Farming:** Improvement of livestock feed systems, fodder production, and zero-grazing units to reduce overgrazing and improve dairy productivity.



Impact on Climate Resilience, Conflict Prevention, and Peacebuilding

Through CSA initiatives, Starlight Cooperative has achieved significant economic, social, and environmental benefits, contributing to climate resilience, conflict prevention, and peacebuilding:

1. **Reducing Resource-Based Conflicts:** By improving resource efficiency and agricultural productivity, Starlight Cooperative has minimized competition over land and water, reducing conflict risks among its members and community at large.
2. **Enhancing Economic Stability:** The cooperative has strengthened livelihoods through market access, income generation, and value addition, ensuring economic security for its members. The cooperative also formed a SACCO, Starlight Wakulima SACCO to offer credit facilities to its members.
3. **Fostering Social Cohesion:** By promoting cooperative business models and joint farming activities, Starlight Cooperative has transformed past rivalries into productive partnerships in Kuresoi North, Mau Summit and Mau Narok.
4. **Empowering Women and Youth:** Starlight Cooperative has enhanced economic opportunities for women, youth, and marginalized groups, reducing inequalities that fuel conflicts. The cooperative is managed by Laureen Njuguna who has supported formation of youth council, women council and PWD council.

Conclusion

Starlight Cooperative has demonstrated that CSA is a pathway to peace, stability, and climate resilience. By integrating climate-smart practices and technologies, inclusive governance, and conflict-sensitive approaches, the cooperative has enhanced food security, stabilized livelihoods, and fostered peaceful coexistence among its members. The Starlight Cooperative model provides a scalable and replicable framework for using sustainable agriculture as a tool for conflict resolution and community resilience.



B. Access to credit for small holder farmers through aggregation centres. A case study of Quinam Limited

Access to capital is a vital component in the production process that cannot be ignored in farming. Farmers require finances to buy seeds, source for fertilizer, pay for tractor services to paying for labourers that have been employed. Most small-scale farmers lack access to financing; this interferes with their productivity because they opt for alternative methods which favour their conditions. Common among most of the farmers is the use of uncertified seeds and non-climate smart agricultural practices in the farming activities.

Quinum Investment was brought on board by Climate Resilient Agribusiness for Tomorrow (CRAFT) project in 2020. Through climate financing in CRAFT, Quinum Investment onboarded farmer groups in Meru and Tharaka Nithi Counties of Kenya and trained them on sorghum farming. Through the training of trainers' method, CRAFT was able to train different farmers on how to farm sorghum to maximise on harvests. The farmers were trained on different climate smart agriculture including teaching farmers on how to aggregate.

In Collaboration with CRAFT, Quinum has helped farmers by creating aggregation centres for the farmers which increased the assurance of market and market access for the farmers and to provide credit facilities to sorghum farmers, through loans. Sorghum farmers were in the past faced delays in the harvesting, due to constant rains. This led to the organisation to tailor make loan that would factor in the sorghum farmers.

Aggregation process involves doing due diligence, a process that ensures they minimize losses, the security is the farm produce. Before the farmer is granted a loan, an officer visits his or her farm, conducts an analysis of the farm to ascertain the value sorghum expected. After ascertaining the farm, the farmer is offered the loan and pays back the organisation with the sorghum harvested.

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Gerald Kuira – PWD Farmer in Mukothima, Tharaka Nithi County, Kenya

Gerald Kuira, a Person with Disability (PWD) farmer from Mukothima, Tharaka Nithi County – Kenya, is not just a farmer but a thriving businessman as well. For over ten years, he operated a grocery store and shoe repair business at the Mukothima market. His agricultural journey began modestly, growing maize, pearl millet, green grams, and cowpeas on a small scale. He is also an active member of the Mukothima Disabled Empowerment Group, where persons with disabilities (PWDs) in the area come together to do table-banking.

It was through this group that Gerald and other PWD farmers learnt about Quinam Investments Limited. The partnership emphasized the benefits of focusing on climate smart sorghum farming, which was more suitable to the climate of Mukothima. Through Quinam Investments, Gerald and other farmers received training in climate-smart agricultural practices through Quinam's extension officer Festus Kinyua, which included good agronomic practices, soil conservation practices like minimum tillage, crop rotation, cover cropping, agrochemical handling, soil testing and nutrient management, and post-harvest management.

Sila variety, which is early maturing, highly productive and drought tolerant became a game-changer for Gerald. Under the guidance of Quinam's extension officer, Mr. Festus Kinyua, Gerald has successfully implemented these practices, transforming his farming efforts.

Before venturing into sorghum farming, Gerald struggled to make a profit from growing green grams and cowpeas, whose prices fluctuated significantly. Sorghum, however, offers a stable price of at least 47 KES (0.35 Euros) per kilogram, providing him with financial security. Starting with just one acre, Gerald harvested 12 bags (50 kg each) in his first season and has since expanded his sorghum farming to three acres. In a good season, he harvests up to 16 bags, even though challenging seasons may bring in 12 bags. In addition to this, Quinam has supported the PWD group in writing grant-winning proposals for various funding initiatives, enabling them to acquire land and capital for farming. For persons with disabilities, obtaining land for farming is a significant challenge, and this support has been critical to their success.

"I am proud of the inclusive support provided by Quinam Investments, especially their tailored financial model for disabled farmers. This initiative allows farmers like me to access credit for farming inputs at half the interest rate offered to other farmers, easing the financial burden for persons with disabilities,"

Gerald's resilience and determination in his farming work have earned him a reputation as a diligent and inspirational leader. He volunteers to train and encourage other farmers with disabilities, helping them navigate the sorghum value chain. His partnership with Quinam and CRAFT has been especially rewarding because the collaboration guarantees access to a structured market for their sorghum due to price stability and instant cash payments.

Gerald is grateful for projects like CRAFT who have included and facilitated other farmers like him to have customized CSA trainings which have led to increase in yield transforming their livelihoods. To his fellow PWD farmers, he encourages a willingness to learn, emphasizing that they should not pity themselves but instead seek advice from experts and agricultural extension officers.

Grateful for the support he has received from Quinam Investments and the CRAFT project, Gerald remains committed to his community. He continues to volunteer his time, training other farmers in sorghum farming, helping them to thrive alongside him, and advocating for greater inclusion of persons with disabilities in agriculture.

The PWD (Person with Disabilities) farmers, have also been factored in credit facilities. They are offered loans at favourable rates to at times no interest loans which help them scale their operations. This has helped many PWD farmers venture in agriculture, improving their livelihood. The training on climate smart agriculture has also helped farmers to realize high returns. Initially before CRAFT project the average sorghum price per kilogram was 38 KES (0.27 Euros), but after the adoption of the right seed variety for the sorghum the prices have increased and have been stable at 47 KES (0.35 Euros) per kilogram.



I would like for more PWDs to be to involved in farming. With the right support, we can achieve self-sufficiency and contribute meaningfully to our communities.





Women and youth in agri-business

In the lush highlands of Kenya, where the landscape is as diverse as the communities that inhabit it, a quiet revolution is taking place. The Climate Resilient Agribusiness for Tomorrow (CRAFT) project, spearheaded by SNV in partnership with Wageningen University and Agriterra, is making significant strides in empowering women and youth. This empowerment is not just about improving agricultural practices; it is about transforming lives, enhancing decision-making power, and creating sustainable, climate-resilient communities.

Nandi Cooperative: Youth Taking the Helm

In Nandi County, the CRAFT project has catalysed a youth-driven transformation. The establishment of a youth council with CRAFT's support has been a game-changer. This council is not just a token gesture but a functional body with a well-defined investment plan. The youth council's achievements are impressive, with successful ventures in potato production and tree seedling sales.

Nelson Kosgei, a dynamic young leader from the Nandi Cooperative, is a shining example of the opportunities created by the CRAFT project. His journey began with participation in a youth forum organized by CRAFT at the Kenya National Farmers Federation (KENAFF) in Nairobi. This exposure led to his selection for an exchange program in Germany, where he gained invaluable knowledge on mechanization. Upon his return, Nelson assumed the role of acting cooperative manager and now heads the mechanization subcommittee. His leadership has inspired other youth members and demonstrated the potential of youth-driven innovation in agriculture.

The youth council's efforts in potato production have been particularly noteworthy. By adopting climate-smart practices, they have increased yields and improved the quality of their produce.

This success has not only boosted their incomes but also enhanced their reputation within the community. The production and sale of tree seedlings have further diversified their income sources and contributed to environmental sustainability.

Marakwet Highland: Women Leading the Change

The Marakwet Highland, known for its scenic beauty and agricultural potential, is witnessing a paradigm shift in gender dynamics. Historically, women in this region have been excluded from key decision-making processes. However, with the intervention of the CRAFT project, this narrative is changing.

CRAFT's women leadership training programs have equipped women with the skills and confidence to take on leadership roles. These training sessions have been instrumental in fostering a new generation of women leaders who are now actively participating in board roles and community governance. One remarkable outcome of these interventions is the significant investment by women in climate-smart agriculture (CSA) activities, including beekeeping, bean production, and tree nurseries.

Beekeeping has provided a sustainable source of income and improved livelihoods for many women in Marakwet. The production and sale of honey not only boost their household incomes but also contribute to environmental conservation. Bean production, another CSA activity supported by CRAFT, has seen women take charge of the entire value chain, from planting to harvesting and marketing. This holistic approach has increased food security and provides a stable income stream for the different households under the CRAFT project.

Tree nurseries have also become a popular venture among the women, contributing to reforestation efforts and providing seedlings for other agricultural activities. The women are looking at fruits such as passions, apples to improve on their diets and as a means of income for their households. The establishment of both women and youth councils in Marakwet further underscores the commitment to inclusive governance. In the cooperatives youth and women are now part of the leadership as part of CRAFT interventions. These councils ensure that the voices of women and youth are heard, their ideas are valued, and they actively participate in shaping their communities' future.

Starlight Cooperative: Inclusive Governance in Action

The Starlight Cooperative stands out as a model of inclusive governance and community empowerment. Through the unwavering support of the CRAFT project, both youth and women councils have been established and are in the process of formalization. This formalization is more than just a procedural step; it is a testament to the commitment to institutionalize the participation of women and youth in governance.

The empowerment provided by these councils has led to significant changes in the cooperative's governance structure. Women and youth now have representation on the board of both the Savings and Credit Cooperative Organization (SACCO) and the multipurpose cooperative. This inclusive approach ensures that diverse perspectives are considered in decision-making processes, leading to more holistic and effective strategies.

A notable achievement of the Starlight Cooperative is the introduction of a clause that mandates youth and women representation on the board. This policy change ensures that the empowerment of women and youth is not just a temporary phenomenon but a sustained practice. The youth council, driven by their newfound empowerment, has ventured into various farming activities, including compost making and potato production. These activities are not only profitable but also promote sustainable agricultural practices.



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The Broader Impact of CRAFT

The CRAFT project's overarching goal is to "contribute to the increased availability of accessible and climate-resilient food for the growing population in Kenya, Tanzania, and Uganda." By supporting women and youth to increase their decision-making power in households, SMEs, and cooperatives, CRAFT is enhancing livelihoods and building resilient communities.

The project's approach is private sector-driven, focusing on seven crop value chains (VCs) and integrating strengthened food security with climate adaptation. By leveraging investment in interventions that lead to inclusive, market-driven adoption and scaling of CSA, CRAFT is creating a ripple effect of positive change.

In 2022, 79% of farmers across Kenya, Tanzania, and Uganda adopted more than two CSA practices and technologies, up from 75% in 2021. Kenya had the highest adoption rate at 86%, followed by Tanzania at 84%, and Uganda at 71%. These practices include the use of improved seeds, weather information/seasonal forecasts, and fertilizer/agro-chemical usage. This combination of CSA practices ensures that farmers are better equipped to cope with climate change.

Despite the challenges, such as the limited number of SMEs and cooperatives with sufficient capacity to deliver CSA, the CRAFT project has demonstrated real potential. The success stories from Marakwet, Nandi, and the Starlight Cooperative provide tangible evidence of the project's impact. Women and youth are no longer passive participants; they are at the forefront of agricultural innovation and community leadership.

The future of the CRAFT inventions looks promising, with a continued emphasis on gender equality and social inclusion. By empowering women and youth, the project not only enhances livelihoods but also builds resilient communities that are better equipped to face climate challenges. The stories from Marakwet, Nandi, and the Starlight Cooperative are a testament to the transformative power of inclusive development and the pivotal role that gender equality and social inclusion play in building sustainable futures. Through CRAFT's continued support, these communities are not only surviving but thriving, setting a powerful example for others to follow.





CSA Practices

Small Holder Farmers mechanising the value chain

Farm mechanisation is increasingly recognized as an important component of climate-smart agriculture (CSA), facilitating improved productivity, resilience, and sustainability. CSA aims to address the challenges posed by climate change by ensuring increased production, adaptation and mitigation especially for smallholder farmers. Agricultural mechanization, a key component of CSA is important because it advances production efficiency, reassures large-scale production, and increases the quality of farm produce.

Rural farmer driving agricultural expansion through mechanisation

Elda Mariam Omurayi from Nambale, Busia County, Kenya shines light on the need to approach agricultural production differently. She is slowly but surely shifting her community's agricultural mindset and approach. As a Trainer of Trainers (ToT), Elda Mariam helps farmers with seed selection, land preparation, input supply, farm management, market access, post-harvest storage and management, making farming in Bungoma county viable. She offers services across the entire value chain from land preparation all the way to markets through aggregation. She aggregates produce from other local farmers and supplies SOPA Millers limited, a key off taker and CRAFT business champion.

Elda Mariam got into 'serious' farming in 2018 after her husband lost his job in Nairobi. Before, they would do small scale unstructured farming, often fully dependant on the family for manual labour. In 2019, she was approached by Cereal Growers Association to support with sorghum production, provided with white sorghum seed variety and trained on sorghum production. She harvested sorghum worth 19, 000 Kenya shillings. She could have harvested more, however, birds were a big challenge.

During this period, Elda met the CRAFT project through SOPA millers. She was introduced to red sorghum, a drought-tolerant, bird-tolerant variety with a short cultivation period of 4 months. She also started mechanising her farming during the period. She would hire tractor services for farmers and aggregate demand in the region. This attracted the attention of Halo Tractor Company, which provided her with a tractor under a pay-as-you-go scheme. Elda became a tractor owner, promoting conservation agriculture and servicing farms across Busia, Bungoma, Kakamega, and Siaya counties. Averagely, she serves close to 1000 farmers every planting cycle, charging a rate of 3,500 Kenya shillings per acreage. The use of a tractor, equipped with implements like ripper ploughs and chisel ploughs has helped farmers in her community, optimizing agricultural operations, reducing labour intensity, and enabling the adoption of more efficient and climate friendly land preparation practices.

"Today, for a farm that would take one week to manually till, we can do it in one hour. Farmers are very happy as the tractor is readily available, takes very little time compared to before and does not destroy the soil. It leaves the soil very uniform and soft."

With the increased ability to produce due to support from the CRAFT project, Elda Mariam and other farmers in Busia County have received support on sorghum production and market access. Elda, who had previously grown white sorghum since 2018, has now fully embraced the red sorghum variety for its resilience and the assured market offered by SOPA Millers who offtakes and supplies to Kenya Breweries Limited. The impact was immediate. In her first season growing red sorghum, Elda aggregated 68 bags, earning KES 258,000 (1900 Euros) through a contract from SOPA, a sum she had never accrued from agriculture before. Since then, her yields have been consistent, producing 4.5 to 6 bags of 100 kg bags per acre in her own farm while aggregating from other farmers in the area. The assured market for red sorghum has created numerous economic and financial.



Her efforts have not gone unnoticed. During her visit to Kenya in 2024, United States First Lady Dr. Jill Biden invited her to make a presentation on the work she does to support farmers especially women and youth in her community.

Elda's success in sorghum farming has encouraged her to diversify her crops to include maize, soya beans, and Nyota bio-fortified beans. She has also expanded her ventures into livestock farming, raising cattle, goats, and chickens.

Elda has also taken a leadership role in mentoring women and young people to embrace agriculture, particularly through the mechanization services offered by Halo Tractor. Her mentorship has encouraged many young people to view farming as a viable career, helping them gain financial independence through agricultural services.

With 4 acres of land, Elda practices what she preaches. She grows red sorghum, white sorghum, maize, Nyota beans, and soya beans, ensuring she remains a role model for the farmers she trains. Her partnership with SOPA Millers through the CRAFT project has made her a key figure in promoting climate-smart farming and transforming the agricultural sector in her community.

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"I feel really appreciated; the invitation was a huge show of faith in my ability. As a climate 'warrior', I know that for us to attain food security and economic empowerment, we must work together towards adopting climate smart practises."

"I had always been curious about how to farm sustainably, especially with the changing climate. The CRAFT project gave me the tools and knowledge to turn that curiosity into action."



Using weather information to make informed farming decisions: The story of Benard Okapesi, Busia County, Kenya

For Benard Okapesi, a seasoned sorghum farmer in Busia County, understanding and applying weather information has transformed his farming—from uncertainty and low yields to confidence and commercial success. With support from the Climate Resilient Agribusiness for Tomorrow (CRAFT) project, Benard has learned to interpret seasonal forecasts and adapt his practices to the changing climate. Benard began cultivating sorghum in 1998 but only relied on traditional indigenous knowledge and guesswork to decide when to plant. This often resulted in losses when rains were delayed or excessive. However, through the CRAFT project and its partners, such as SOPA millers, he has received training on how to access and apply localized seasonal climate forecasts and daily weather updates through SMS and extension agents.

In Busia, sorghum is typically planted during the long rains season (March to May) and short rains season (October to December). However, Benard prefers the long rains for planting Seredo, a red sorghum variety that is more drought-tolerant and resistant to lodging. “The long rains give me better yields,” he explains, “and now I know exactly when they are expected, thanks to the weather updates I receive.”

The main climate risks in his area include unpredictable rainfall patterns, extended dry spells, and flooding—especially during the early stages of crop growth. By aligning his planting with rainfall forecasts and using drought-tolerant varieties promoted by the CRAFT project, Benard has been able to reduce crop failure and maximise yields, harvesting over 10 bags per half an acre, far better than his earlier harvests under maize. He no longer buys seeds every season. “This variety allows me to save my own seed, which reduces my input costs. That money can now go into paying school fees and improving the farm.”

Today, Benard is recognized as a lead farmer in his community. Through farmer field days and peer-to-peer learning supported by the CRAFT project, he trains others on the importance of integrating climate-smart agriculture and weather-based decision-making into their practices.

Benard’s story demonstrates how access to weather information, combined with capacity-building, access to markets, and improved seed varieties, can help farmers adapt to climate change while boosting their income. Thanks to the CRAFT project, more farmers like Benard are making climate-informed decisions and thriving despite the changing weather patterns.

“I now use weather information to know when rains will start and how long they are expected to last,” Benard says. “This has helped me avoid planting too early or too late. I prepare my land early and wait for the right time to plant.”

“With good timing and the right information, farming doesn’t have to be a gamble anymore.”

From livestock to potatoes: Yenko's journey to profitable farming and forest conservation

Rufus Yenko, a farmer and Trainer of Trainees (ToT) in Nakuru County, has undergone a profound transformation in both his livelihood and his approach to sustainable farming. Before joining the CRAFT project, Yenko primarily engaged in traditional livestock farming, raising cattle, sheep, and goats, while practicing subsistence farming. However, his journey took a pivotal turn when he learned about the potential of potato farming. "I decided to switch to potato farming because of its high profitability and the ready access to markets," he says. The demand for potatoes was driven by processors who relied heavily on the crop as a raw material, motivating Yenko to venture into this new opportunity.

Through his work with Fresh Crop Limited and as a farmer service center with the Cereal Growers Association, Yenko now plays a key role in providing essential agricultural services to local farmers. "My job is to help farmers get everything they need—from fertilizers to seeds," he explains. As a link between farmers and companies, Yenko ensures that they have access to the right tools and resources to enhance their productivity. He also shares his knowledge of climate-smart agricultural practices (CSA), which he gained through the CRAFT project. "One of the most important things I learned was the need for soil testing. It helps farmers know exactly what kind of fertilizer their crops need."

Yenko's embrace of CSA practices has had a significant impact on the productivity of potato farming in Nakuru County. His efforts have rippled through the region, influencing communities traditionally focused on livestock farming, such as the Maasai in the Mau Forest area, to also consider potato farming. "Potato farming is not only profitable but also less risky compared to livestock rearing, especially with the unpredictable climate," Yenko says. This shift was further encouraged by the Nakuru County government's forest conservation efforts, which aim to protect the Mau Forest from encroachment while promoting sustainable farming.

Yenko is a strong advocate for the link between agriculture and environmental conservation. "The more trees we plant, the better the rainfall, which helps our crops," he observes. To promote forest conservation, Fresh Crop launched an initiative to encourage tree planting. Farmers can purchase subsidized tree seedlings for just 20 KES (0.15 Euros) each, and with every purchase of potato seeds, they receive free seedlings to plant. "It's a win-win situation. We increase our forest cover and improve the climate at the same time," Yenko adds.

In addition to reforestation, Fresh Crop promotes alternative energy sources like biogas and solar power to reduce reliance on the forest for fuel. "We encourage people to shift to farming and away from cutting down trees for firewood. It's better for their livelihoods and the environment," Yenko explains.

Yenko's journey from livestock farming to profitable potato cultivation, coupled with his dedication to forest conservation, showcases the power of integrating climate-smart agriculture with sustainable development. His work is not only improving the lives of local farmers but also contributing to the long-term health of the environment. "This farming is very profitable when you do it in the right manner," Yenko emphasizes, highlighting the transformative impact of his efforts on both livelihoods and the community.

"My job is to help farmers get everything they need—from fertilizers to seeds,"



From Subsistence to Agribusiness: How CRAFT Transformed Julianna Jeptoo's Farming Journey

"I've always loved farming," shares Julianna Jeptoo, a farmer from Nandi County. "Since I was a child, I'd plant and take care of fruit trees on my mother's farm. It's where my passion for agriculture began." Although life led her to early marriage at the age of 20, temporarily pausing her education, Julianna never let go of her love for farming. "I kept going with mixed farming—millet, maize, beans, potatoes, cabbages, and more. I also raised chickens, cattle, and sheep," she recounts. Years later, her husband's encouragement led her to return to school. "In 2014, I graduated from high school, and by 2019, I had earned my diploma in General Agriculture from Eldoret National Polytechnic. My education gave me the foundation I needed to embrace modern farming methods," she explains.

It was in 2020 that her journey took a transformative turn. "I joined the Nandi Potato Cooperative Society, and they had just partnered with the CRAFT project. That's when I learned about climate-smart agriculture," Julianna says. The CRAFT (Climate Resilient Agribusiness for Tomorrow) project taught her crop rotation, soil conservation, and the use of certified potato seeds. "They even introduced us to a potato planting machine. It was a game changer."

Before CRAFT, Julianna's potato yield was modest. "I only planted half an acre and harvested five sacks—mostly for my family," she admits. But with CRAFT's support, everything changed. 'Now, I plant on 1.6 acres, and this year, I harvested 120 sacks! Each sack weighs 50 kilograms. The increase in yield allowed me to build a modern house.' Julianna has also become a leader in her community. "I'm now a potato seed multiplier for the Shangi and Unica varieties, and I train three farmers' groups in climate-smart practices. It's been amazing to see the impact."

Despite her success, Julianna acknowledges the challenges. "Some farmers don't have the capital for inputs, so they struggle to embrace potato farming fully," she notes. "But I believe that with more support, we can overcome these barriers." Looking ahead

Julianna is eager to diversify her farming. "I'm starting beekeeping and fish farming. I've already begun acquiring materials for the beekeeping," she shares. She's also passionate about agroforestry. "I've encouraged CRAFT to promote it more—it's crucial for fighting climate change."

Reflecting on her journey, Julianna is filled with gratitude. "CRAFT changed my life," she says. "It gave me the skills and confidence to grow, and I'm proud of the impact I've had. My dream is to one day be recognized globally for my work in agriculture. I believe in the power of consistency and adopting new technologies, even on a small scale."

With her eyes set on future possibilities, Julianna Jeptoo stands as an inspiring figure—a testament to how passion, education, and innovative support can transform livelihood

"But I believe that with more support, we can overcome these barriers."





GESI



Gloria believes that more can be done to support young people in agriculture. She advocates for increased access to land, encouraging parents to give young people opportunities to own and manage their own farms.

Young but fearless...

Growing up in a family of seven, 25-year-old Gloria Chepkemoi was inspired by her parents' involvement in farming and the cooperative movement. However, like many young people in her community, she has faced challenges. After graduating with a diploma in Veterinary Medicine in 2022, Gloria struggled finding employment. Having given birth in 2021, early marriage and motherhood added to her responsibilities, making it difficult to balance family life and economic stability.

"Starting a family at a young age was tough. It was not easy, and it required a lot of maturity. I also struggled finishing school once I conceived my baby. I feel like getting pregnant at a young age was wrong and changed my life a lot."

Additionally, young people in her area struggle accessing and owning land, as most farms are owned by their parents and with no clear line of inheritance, especially for female youth, limiting their ability to generate income from agriculture.

"Many of us cannot make income from farming because we do not have farms. Land is also very expensive. At the end of the day, what is produced on the farm and how it is produced is fully controlled by our parents," Gloria explains.

Gloria's joined the Kaplomboi Farmers Cooperative through her parents, who were long-time members of the cooperative. She became an active participant in its youth chapter, that brings together several young people within Sotik Sub County to share experiences, lessons and learnings around agriculture. Through the CRAFT project, she was introduced to various Climate Smart interventions, including the use of certified bean seeds, agroforestry, water harvesting, and post-harvest storage and management techniques.

“Starting a family at a young age was tough. It was not easy, and it required a lot of maturity. I also struggled finishing school once I conceived my baby. I feel like getting pregnant at a young age was wrong and changed my life a lot.”

harvesting, and post-harvest storage and management techniques.

"We were introduced through Peterline, one of the ToTs (Trainer of Trainers). She does trainings for us through the youth group."

Gloria quickly adopted several CSA practices on her 0.7-acre farm, which she manages alongside her husband. Some of the key practices she integrated include the use of certified seeds for beans and maize, which has increased her yields.

"We purchase certified seeds from Kaplomboi Cooperative. Before, my husband would recycle seeds despite my push for certified seeds like my parents, but now he knows the importance having seeds the change in yields."

They also embraced agroforestry, planting fruit trees such as avocados, oranges, and mangoes, which has diversified their income sources and improved soil health. They also actively harvest water in a water pan ensuring reliable water supply for irrigation during dry seasons. "We have water tanks for roof harvesting and a small water pan. This has been very helpful, especially during dry spells."



"I sold beans and used the money to pay fees for my daughter who joined pre-school in early 2024,". She also has higher confidence in herself as a person and her ability to train other young people on climate smart practises. "Getting pregnant at an early age was an issue for my parents and myself, especially my dad who is very strict. However, since I became actively involved in community activities and trainings, my confidence has really grown. I can advise people on CSA. I believe my voice can be listened to and can advise people on what constitutes CSA. I am more confident as a young person in the community," she adds.

Gloria's husband, who is also currently unemployed, has become more supportive of her farming activities. The couple works together on the farm, and the increased income has strengthened their relationship. "My husband is very happy with my work. We support each other in farming, and our relationship is very positive since we have enough food. This has brought us closer as a family."

Looking to the future, Gloria has ambitious plans. She hopes to purchase a larger farm to expand and supplement her agricultural activities. She also hopes to open an agrovet shop near her home to provide farmers with easier access to farm inputs and implements. "I would like to partner with Kaplomboi Cooperative to have a grassroot agrovet so that I can bring facilities, and farm implements closer to more farmers. Its the only way we shall all be food secure" Gloria explains. She also envisions establishing a training school for young people, where she can share her knowledge and experiences in CSA as a way of creating more awareness on the effects of climate change and how to mitigate.

Gloria believes that more can be done to support young people in agriculture. She advocates for increased access to land, encouraging parents to give young people opportunities to own and manage their own farms. "There is a need to support bringing on board more youths to engage in trainings and farming. Sometimes undertaking agriculture on parents' land is a bit challenging."

She also emphasizes the importance of digital learning platforms to engage tech-savvy youth in CSA through digital simulations and online training. "Integrate digital learning platforms that simulate CSA. Young people are tech-savvy, and we need to find a way to influence farming through these platforms. Additionally, more mentorship programs are required to build the capacity of young farmers and encourage their active participation in agriculture."

"There is need to support bringing on board more youths to engage in trainings and farming. Sometimes undertaking agriculture on parents' land is a bit challenging."

Additionally, they began using hermetic bags to store produce, reducing post-harvest losses and improving the quality of stored produce. "We use hermetic bags for storage, which we purchase from Kaplomboi Cooperative. This has helped us preserve our harvest much better," she says.

The adoption of CSA practices has had an impact on Gloria's life and work. Bean harvest increased from 2 bags to 8 bags per season, while maize harvest rose from 4 bags to 10 bags. "When I got married, I immediately adopted the new practices in my farm and have been harvesting well since then. we harvested 2 bags of beans and 4 bags of maize initially, but now we get 8 bags of beans and 10 bags of maize."

With higher yields and better market access through the cooperative, Gloria's income has grown substantially. She used some of her earnings to pay for her daughter's preschool fees,

Jane Kilel: Economic empowerment of women farmers through Starlight Wakulima SACCO

What happens when a woman who once depended on her husband is suddenly widowed? When she's left to care for seven children alone? When family disputes threaten to take away the land her husband left behind? For Jane Kilel, a 60-year-old farmer from Mau, Nakuru County, these were not just questions—they became her reality 20 years ago. Cultural expectations, stigma, and the weight of single-handedly providing for her family could have held her back. But Jane refused to give up.

Despite the challenges exclusion from agricultural opportunities, societal barriers, and the looming threat of climate change, Jane's story is one of resilience, strength, and determination. Her journey is a testament to the power of perseverance and the urgent need for inclusive support systems for widowed women in agriculture.

"The loss of my husband was a big blow to our family. I became a shell of my former self. Joining the cooperative renewed my purpose after struggling for years."

Economic empowerment plays a major role in supporting widowed women in agriculture. Research indicates that empowering female farmers boosts farm incomes. This is particularly important for widows who often face financial instability. Studies also show that when women are supported in agricultural practices, their income generation capabilities improve more significantly than their male counterparts, highlighting the potential for targeted interventions to yield substantial economic benefits.

Moreover, supporting widowed women in agriculture can foster social stability and community resilience. In many communities in Africa, widowhood often results in social isolation and stigma, particularly in patriarchal societies where women's identities are closely tied to their husbands.

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"Before the training, I didn't realize how much potential my farm had but with adoption of CSA practices and technologies particularly chisel ploughing, integrated pest management, crop specific fertiliser and certified seeds, I have significantly increased my yields and protect my crops from the unpredictable weather," Jane shares.

Economic empowerment is a major factor for supporting widowed women in agriculture. Research indicates that empowering female farmers can lead to increased farm incomes, which is particularly important for widows who often face financial instability following the loss of their spouses.

Climate change has made weather patterns more erratic, with increased risks of droughts, floods, and extreme temperatures. CSA practices helps farmers like Jane build resilience against these challenges. For example by adopting mechanised land preparation like chisel ploughs, Jane has improved her soil structure, allowing it to retain moisture during droughts and drain excess water during heavy rains. The use of certified/clean seeds which are drought-tolerant or flood-tolerant has reduced crop losses while applying an integrated approach in pest management has reduced the risk of pest outbreaks, which has been exacerbated by changing weather conditions.

Jane currently has a one-acre potato farm and 3 dairy cows. She harvests between 25-30 bags from her quater an acre farm. She also does C2 seeds which she sells to other farmers in her locality. Jane is also a dairy farmer and has integrated paddocking system as a way of managing her livestock. She sells 15 litres to Starlight Cooperative every day, earning 40 KES per litre.

Before the Starlight Farmers' Cooperative established the Starlight Wakulima Sacco, Jane struggled with irregular saving habits, which limited the amount of money she could borrow to expand her farming activities. However, after participating in financial training programs, Jane learned to set aside a portion of her farming income regularly. This has enabled her to qualify for loans from Starlight Sacco, providing her with the financial support needed to grow and expand her farm. In 2022, she took out a loan of 50,000 KES, combined it with her savings, and purchased two dairy cows, boosting her dairy productivity and income from 12 litres per day to 18 litres. She has also managed to increase her land size from quatre an acre to one acre.

The additional milk, marketed via the Cooperative at 40 KES per litre, has afforded her a consistent revenue stream, thereby improving her savings and financial security. Jane characterizes the borrowing process as simple and accommodating. "The Cooperative checks my savings and evaluates the outputs from my farm. The repayment is gradual and manageable, taken from my produce sales," she explains.

Within Jane's community, many have taken note of her achievements. She is frequently asked for guidance by farmers, and she is always happy to share her insights. She urges them to participate in the Cooperative and the newly formed Sacco, highlighting the significance of initiating modest deposits and cultivating a sound financial history.

"Start with what you have. Save consistently, even if it's a little. Over time, you'll see the difference," she advises. This has motivated numerous farmers to adopt like measures, cultivating a culture of fiscal discipline and economic empowerment.

She has financed her children's school and college tuition, augmented her agricultural projects, and established herself as a key figure in her community. Her robust credit history with the Sacco has instilled confidence in her to seek larger loans, thereby laying ground for opportunities for future expansion. Jane intends to expand her agricultural enterprises and enhance her connections with agribusiness networks. She is dedicated to motivating others, demonstrating that with appropriate assistance and resolve, financial and agricultural success is attainable.

"Start with what you have. Save consistently, even if it's a little. Over time, you'll see the difference,"

She has financed her children's school and college tuition, augmented her agricultural projects, and established herself as a key figure in her community.

We lead by example...

Regina shows me a picture of herself and says, "This is a picture of me in 2018, just from university. This was my first training. Nilikuwa nimeparara -I had no money", she says laughing.

"Farming the right way has changed my life. It has given me a voice, a purpose, and the ability to help others. I want to see more women and Persons with Disability involved in agriculture in ways that benefit them financially."

34-year-old Regina Muthoni Luka from Mikinduri Ward in Tigania Central, Meru County wears many caps, she is a farmer, a businesswoman, a trainer on Climate Smart Agriculture and also supports and empowers Persons Living with Disability to explore opportunities in farming. A mother of five, Regina carries the true nature of women and power. She is confident, resilient, innovative, and a community voice, above all she gives back. Regina is a farmer growing sorghum, maize, Nyota beans, millet, cowpeas, groundnuts, and green grams. Regina joined the CRAFT project in 2021, as one of the farmers trained on climate smart sorghum production and contracted by Shalem Investments Limited to offtake sorghum. She was trained on and adopted a number Climate Smart Agriculture Practises including soil testing, rip lining, use of certified seeds, agrochemical handling, line planting, post-harvest management and storage.

"Before, I was planting kimerumeru - kienyeji (just planting for the sake of planting) without proper techniques, and my yields were low. Now, with CSA practices like soil testing, riplines to conserve water and certified seeds, I have seen a huge difference. I used to get only 2-3 bags of sorghum per acre, but now I average 18-24 bags,"

From theory to practise - Circular farming, I am a Champion!

Currently she maintains steady production while also aggregating produce from nearly 50 farmers, collecting up to 21 tonnes of sorghum, which she sells to schools and off takers like Shalem and Jufra Investment Limited. She is also an agroveter owner enabling farmers easy access to essential inputs such as seeds, fertilisers, pesticides and storage materials like tarpaulin bags. This has reduced the need for farmers to travel long distances like to Meru town, saving time and transportation costs. "I currently have 480 farmers who buy inputs from me. I link them to products and finance, like Vision Fund and Acre Fund, who then support them. It's not just about selling inputs; it's about helping farmers grow," Regina says.

Regina's work extends far beyond her own farm. She is deeply ingrained in issues affecting Persons with Disability in her community. She works with six disability groups; Kaguata, Marega, Nkonju, Ruriie, Mulika, and Thuuri totalling around 240 members. She links these groups to farming opportunities and training programs provided by organizations like Africa Harvest, ICRISAT, and Light for the World. Through these linkages, they are trained in agriculture and poultry farming, empowering them to become self-reliant and business oriented.

"I look for partners who can support PWDs and link them to farming opportunities. They are trained to be business-oriented, and it's amazing to see them gain confidence and independence," Regina explains.

"Farming the right way has changed my life. It has given me a voice, a purpose, and the ability to help others. I want to see more women and Persons with Disability involved in agriculture in ways that benefit them financially."



"Farming and life in general has not been without its challenges." Regina says, deep in thought. Like many women in her community, she has faced gender-related obstacles, including limited control over finances generated through farming. "Many women do not have a voice in their families. Sometimes they work and do not even know where the money goes. Our husbands sometimes take all the money, and how they spend it is not clear," Regina explains.

However, she has overcome these barriers through sheer determination and by leveraging the support of other women groups, applying the mantra of power in numbers. Regina believes that more women can be empowered to engage in agriculture, especially CSA, by making financing opportunities more accessible and providing financial literacy training.

"We need to make funding women led initiatives easier. Many of us lack basic finances to purchase inputs, let alone land. A simple approach which I believe can work is allowing women to get inputs on credit then pay once they have made harvests. Additionally, financial literacy training is crucial so that women can manage their resources effectively," she emphasizes.

She also highlights the importance of continued support for PWDs, ensuring they have equal access to farming opportunities and resources. "I want to see more PWDs empowered through agriculture. They have so much potential, and with the right support, they can achieve great things," Regina says.

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No challenge is too great to overcome

40-year-old Wesley Korir from Ndanai, Bomet County wears a defiant smile!. Despite living with a disability that left him visually and hearing impaired, Wesley has embraced Climate-Smart Agriculture (CSA) and has changed his farming practices and secured a better future for his family. His story is one of resilience, hardwork and determination.

A Life marked by challenges

Wesley's life has been anything but easy. At the age of five, he and his younger brother were involved in a tragic home accident. While trying to save his brother from a pot of boiling water, Wesley slipped and fell in, suffering severe burns that left him visually and hearing challenged, scars he carries today. This life-altering incident forced him to drop out of school in class four, but he refused to let his disability define him. Instead, he turned to farming, a decision that would later become his lifeline. Today, Wesley is a husband and father of four children one girl and three boys. His eldest child is 14, while the youngest is just five years old.

Despite his physical challenges, Wesley has taken on the responsibility of providing for his family. He owns 1.5 acres of land, of which he cultivates 0.7 acres. His wife and children have also established a kitchen garden, and his wife plants sorghum, which they use for both household consumption and sale.

Wesley's introduction to Climate-Smart Agriculture came in 2022 through the Kamukulya Farmers Group, where he met Sylvester, a Trainer of Trainers (ToT) from Kaplomboi Farmers Cooperative, a cooperative supported by the CRAFT project. Sylvester's training sessions on CSA practices provided a positive challenge for Wesley. "Through the demo plot, I was able to understand better because it was practical," Wesley recalls. "Sylvester taught us about climate change and how to adapt our farming practices to it." The training covered a range of CSA interventions, including the use of improved bean seeds, proper agrochemical handling, post-harvest management, and soil conservation.

“
Since I am in the business of farming, it will be easy for me to demonstrate and train other farmers on which inputs work best because I will have used them too.”

Wesley learned about the importance of certified seeds, such as the improved Nyota beans and maize varieties, which he now purchases from agrovets and the Kaplomboi Cooperative. He also adopted practices like using tarpaulins for drying his produce and planting Napier grass to control soil erosion and pests. Before adopting CSA practices, Wesley faced numerous challenges. He lacked knowledge about the right seeds and agrochemicals to use, and his farm produced only 60 kgs of beans, which was insufficient to meet his family's needs. Financial constraints further compounded his struggles, as he relied on manual labor and had limited access to credit.

However, the CSA interventions have brought remarkable improvements. Wesley now harvests 2 bags (180 kgs) of beans from 0.4 acres, a tangible increase from his previous yield. He sells each bag at KES 12,000, using the proceeds to pay school fees and support his family. "Having harvested 2 bags, I sold each at 12,000 KES. I used this money to pay school fees," Wesley shares. His family is now food secure, and his wife has started planting sorghum, for household consumption and selling. Wesley has become a role model in his community, demonstrating that disability is not a barrier to success. His journey has inspired others, particularly Persons with Disabilities (PWDs), to take up farming and adopt sustainable practices. "I would like to involve more PWDs in farming," Wesley says. "With the right support, we can achieve self-sufficiency and contribute meaningfully to our communities."

Despite his achievements, Wesley acknowledges that more needs to be done to support PWDs in agriculture. He calls for subsidized farm inputs and equipment, financial support, and more awareness to ensure that PWDs are included in community activities. "PWDs feel like burdens, which hinders them from wanting to be involved in community activities," Wesley explains.

I would like for more PWDs to be involved in farming. With the right support, we can achieve self-sufficiency and contribute meaningfully to our communities.

"We need more training and support to empower them." He also recommends adopting interventions targeting PWDs to be user specific as disabilities vary.

Wesley envisions a future where he expands his farming and tries his hand at fully commercialising an animal fattening business. He dreams of opening a farm inputs shop and a mobile money business while leveraging his farming experience to train and support other farmers. "Since I am in the business of farming, it will be easy for me to demonstrate and train other farmers on which inputs work best because I will have used them too," he says.

Wesley's ultimate goal is to create a sustainable and inclusive agricultural system that benefits everyone, regardless of their abilities. For Wesley, it's more than farming; it's about hope, perseverance, and the belief that no challenge is too great to overcome. Through his determination and the adoption of CSA practices, Wesley is not only securing a better future for his family but also lighting the way for others to follow. His journey is a reminder that with the right tools, knowledge, and support, anyone can thrive, even in the face of adversity.



A Transformative journey: My three-month agricultural adventure in Germany

Nelson Kipkosgey is the Chairperson of the Nandi Youth Council. He was selected for a three-month internship in Germany under the International Young Farmers Exchange Program. He secured this incredible opportunity after participating in the National Youth Convention, which was hosted by CRAFT, Agriterra, and Kenya National Farmers' Federation. Now back home in Kenya, Nelson shares what he learned during his experience.

In August, I began a three-month exchange program, where I carried out hands-on practical training at three different farms in Germany's beautiful countryside. Each farm had a different focus- dairy, potato, poultry, and biogas, providing me with a comprehensive understanding of the industry.

Dairy Farming- A highlight of my journey was the time spent on a dairy farm. I got to witness every step of the dairy farming process, from taking care of the cattle to hands-on experiences with milking equipment and robotic milk processing. This gave me a deep understanding of the industry, including the importance of quality control and hygiene standards in dairy production.

Potato farming- I gained practical knowledge in planting, cultivation, and harvesting techniques. I learned about crop rotation, soil preparation methods, pest and disease management, and had hands-on experiences maintaining potato crops, which helped me understand sustainable farming practices better.

Poultry management- My visit to the poultry farm was both educational and hands-on. I gained insights into different poultry breeds and their specific requirements, including feed preparation, nutrition, biosecurity measures, and disease prevention. This gave me a comprehensive understanding of poultry management practices.

Biogas Plant Management- The final leg of the program immersed me in the sustainable and innovative practices of biogas plant management. I gained knowledge of the fermentation process, hands-on experience in operating and maintaining a biogas plant and an understanding of the environmental benefits and renewable energy potential of biogas production.

This three-month exchange program in German farms has been an enriching and educational experience that has broadened my horizons in agriculture. The knowledge and practical skills acquired during this program have equipped me with a deeper understanding of dairy farming, potato farming, poultry management, and biogas plant operation. I look forward to applying the skills and knowledge I have gained in my future endeavours in the agricultural sector. This experience has not only enhanced my understanding of farming practices but has also fostered cultural exchange and international cooperatives.



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Improved
business
performance

FARMER HOUSE

From Bungoma to the World: How a farming couple is cultivating climate resilience and inspiring change across borders

In the heart of Bungoma County, Kenya, a husband-and-wife team is rewriting the narrative on smallholder farming. Martin and Betty Wepukhulu are not just farmers; they are changemakers. Thanks to the Climate Resilient Agribusiness for Tomorrow (CRAFT) project, they've transformed their three-acre family farm into a thriving model of Climate Smart Agriculture (CSA) and their impact now stretches beyond Kenya's borders. Their journey began in 2021 when Martin was introduced to CRAFT through the Bungoma County Ministry of Agriculture. He was eager to find solutions to the challenges he and other farmers were facing: erratic rainfall, declining yields, and poor soil health. Through CRAFT's Trainer of Trainers (ToT) model, Martin immersed himself in CSA practices such as soil conservation, use of certified seeds, interpretation of climate advisories, and value addition. He became a champion of knowledge, forming six farmer groups and sharing what he learned.

But Martin was not working alone.

While he travelled for training and later for international assignments, Betty ran the farm operations with resilience and remarkable leadership. "My wife is the real engine at home," Martin says proudly. With hands deep in the soil and eyes set on the future, Betty not only maintained the farm but improved it, integrating techniques like composting, mulching, and intercropping to regenerate the land.

Betty's dedication has led to remarkable results. Their yields have increased, and they've become seed producers, supplying fellow farmers with quality inputs. Her efforts in value addition especially in processing traditional African vegetables (TAVs) have opened new income streams, empowering her economically and positioning her as a mentor to other women in the community.

The couple's joint efforts gained them national recognition, and in early 2024, an unexpected opportunity knocked: international collaboration. During a Farmer Field Day, Martin met a senior official from the DRC Ministry of Agriculture. Impressed by Martin's innovations and Betty's leadership, he invited Martin to help establish a CSA demonstration farm in Kinshasa. Backed by the Congolese government, Martin spent six months in the DRC, working with local officials and training farmers on sustainable practices.

Today, that demonstration farm spans over 200 hectares, employs 10 permanent staff, and is cultivating crops like TAVs, sorghum, and watermelons—all based on techniques that started in Bungoma. Meanwhile, back home, Betty expanded their farm by another six acres, further scaling their CSA practices and solidifying their reputation as regional leaders in sustainable farming.

The Wepukhulus' story is proof that climate resilience is not just about surviving change—it's about driving it. Through partnership, persistence, and the power of shared purpose, they are transforming not only their livelihoods but also the agricultural future of their community and now, an entire region.

Her leadership extends beyond farming. Betty has taken on the role of aggregating farm inputs for other farmers, earning commissions from sales. She also processes and sells Mucuna products independently, keeping the profits for her own use.



Seeds of Success: Patrick Bett's journey to thriving amidst climate change challenges in agriculture

At just 30 years old, Patrick Bett stands tall among young farmers in Bomet County, Kenya. A Bachelor of Arts graduate in Business Management with a specialization in procurement, Patrick has embraced agriculture as a profitable enterprise rather than a fallback option. As one of the youthful Trainers from Kaplomboi Farmers Cooperative, Patrick has transformed his worldview on farming, making him a champion of Climate-Smart Agriculture (CSA). Patrick's interest in agriculture began with a realization that farming could be a profitable business. "One of the major obstacles to young people joining agriculture is mindset. We see agriculture as the last option when everything else seems to have 'failed'. The levels of unemployment in Kenya are significantly high meaning many youths are not financially engaged. There is need for a change in mindset. We need to drive more of us to agriculture". Patrick says.

Patrick joined the CRAFT project in 2023 through the Kaplomboi Cooperative, where he was invited to attend training sessions for Spray Service Providers (SSPs).

"Spray Service Providers (SSP) are farmers who have undergone specialised training on application and agrochemical handling and are directly linked to companies dealing in agrochemicals, and hire out their services to (fellow) farmers to spray their lands. The benefit of this is that untrained farmers no longer handle pesticides, and that this application is only undertaken by those who are properly trained." Patrick says.

As a Spray Service Provider, Patrick supports other farmers in his community. He charges KES 50 per pump for spraying services, earning an average of KES 400 daily. Patrick previously engaged in traditional farming practices on his parents' farm, relying on local seeds and manual hand-weeding, unaware that herbicides were an option.

They also lacked knowledge on the appropriate timing for planting, applying fertilizers, and weeding. To make matters worse, they practiced mono-cropping, growing only maize season after season. He was eager to learn more about sustainable agricultural techniques, coupled with strong determination to challenge the perception of agriculture as merely subsistence farming. "After graduating in 2022, I ventured into agriculture with a 0.4-acre piece of land purchased from the proceeds of woodlot sales I had established on my parents' farm. From this land, I harvested two bags of beans. Why beans? A Gross Margin Analysis we had been taken through by CRAFT revealed that beans were significantly more profitable than maize, making it the smart choice."

Sensing an opportunity having sold 1.5 bags to Kaplomboi Cooperative at 18,000 Kenya Shillings, Patrick decided to lease a 1.1-acre piece of land in 2024.

With training and support from the CRAFT project, Patrick has adopted several climate-smart practices into his two pieces of lands. He now uses certified seeds purchased from the Kaplomboi Cooperative, which has improved his yields. With access to climate information, he receives from The Kenya Meteorological, he is better able to plan for planting and harvesting seasons. As a Service Spraying Provider, he also uses chemicals effectively, applying preventive and curative solutions with precision. Patrick's practices also include use of foliar feeds, proper herbicide application, and understanding the compatibility of different pesticides.

“One of the major obstacles to young people joining agriculture is mindset. We see agriculture as the last option when everything else seems to have 'failed'.”



Product diversification for improved business performance: The case Of Sereni Fries Limited.

Introduction To Sereni Fries Limited

Humphry Mburu, originally a banker, fulfilled his entrepreneurial dream in 2012 by founding Sereni Fries to cater to Kenya's growing hospitality industry with fresh potato products. The company, officially registered in March 2015, started with two staff members, and has since grown to 47 permanent and 13 casual employees, with branches in Nairobi, Mombasa, and Nakuru. Sereni sources potatoes directly from local farmers, processing them into fresh potato products such as chips. The company supplies fresh potato products to the hospitality industry and chips to retailers in Nairobi, Mombasa, and Nakuru. With plans to become a supplier for a major fast-food chain in Kenya, Sereni Fries aims to further expand, benefiting the local potato farmers it collaborates with.

"To meet specific standards for chips production, Sereni engages in contract farming with local farmers, supporting them from planting to harvesting. We have Agronomists work directly with farmers in various potato-growing regions, providing training on climate smart agriculture and proper farm input use for maximum yields and quality. Currently collaborating with 3,500 farmers in regions like Nyandarua, Nakuru, Bomet, Narok, Meru, Elgeyo Marakwet, and Uasin Gishu. This approach ensures adherence to commercial processing standards and addresses challenges faced by potato farmers, including market access. By purchasing directly from farmers, Sereni eliminates brokers, offering fair prices and ensuring a consistent supply. The company's cold potato storage facility allows us to store potatoes for extended periods, avoiding price fluctuations during low seasons, creating a mutually beneficial situation for both farmers and the processor" said Humphrey Mburu, MD for Sereni.

Partnership with CRAFT

Sereni began its two-year partnership journey with the CRAFT project in August 2020 during the initial phase of its potato chips line. One of the most significant milestones in the project was the increase in chip production achieved by procuring and installing an automated production line. While this milestone was achieved, Sereni had a shortage of raw materials as the desired processing potato varieties (Markies, Dutch Robjijn, Destiny etc.) had been adversely affected by unfavourable climatic conditions in 2021 such as drought and frost, forcing them to shut down potato chips production completely. Nonetheless, Sereni continued processing freshly cut potatoes for the HoReCa Market.

Amid the potato chips line closure, they recognized an opportunity in frozen fries, a relatively new product in the Kenyan market. It was a viable product as it offered a higher price per kilogram (up to 3 times more) from the market and a longer 6-month storage period compared to fresh cuts. International fast-food chains, such as KFC, were importing these products, but the covid pandemic disrupted imports due to controlled trade. Simultaneously, consumer demand for takeout food, including French fries, surged due to lockdown. To seize this opportunity, they invested around €240,000 in a frozen line machine, capable of processing 5 tonnes/hour, and successfully launched their first product in September 2021.

During the 2023 long rain season (March to May), Sereni procured 199,402 Kgs from farmers, but it fell short of their demand. They were only able to buyback from 34% of the 2404 farmers they had reached through the partnership hence they sought to continue their partnership with CRAFT to enable them to reach more farmers who were interested in contract farming leading to an extension period of the partnership to end of March 2023. During this 6-month period, they were able to train 300 additional farmers but 10 were put on a supply contract with an average of 21.3 acres.

The cost of buyback increased from their budget of € 0.15 per kg to € 0.34 per kg., leading to increased cost of sales. To further reduce post-harvest losses at aggregation stage, Sereni had procured 6,000 netted bags that were distributed to the farmers during harvest in that season. However, they have still managed to increase their revenue. The turnover before partnership with CRAFT was € 634,323 and grew to €1,049,000 in 2022.

In December 2021, discussions began between KFC and Sereni regarding a supply contract for frozen fries, as KFC's local supply had run out. However, challenges arose due to the necessity for continuous supply, exacerbated by increased production costs and unpredictable weather conditions leading to reduced yields in 2022. This situation temporarily halted the collaboration. Despite these challenges, Sereni adapted by shifting its focus to the retail market, making its products available in supermarkets. Simultaneously, Sereni is exploring collaborations with importers of frozen fries to ensure quality standards are met.

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Sereni's commitment to meeting international food safety standards and developing a traceability guide proved to be a competitive advantage. This dedication enabled them to successfully enter major retail markets such as Naivas and Quick Mart. The consumer response was positive, with retail stores quickly selling out of Sereni's products. To maintain quality, 300 farmers and 10 field staff underwent training on standard operating procedures, contributing to the overall success of Sereni's venture.

They currently process 52 tonnes per month, but securing enough raw materials from farmers remains a challenge to process optimal capacity due to limited production of desired processing varieties with the most common variety produced in Kenya being Shangi.

They expect to increase their turnover to € 1,724,130 by the end of 2023 and doubling it to € 3,586,200 by the end of 2024. They also aim to expand their buyback to over 300 tonnes per month and establish aggregation centres equipped with wooden crates to address packaging challenges.

As they look to increase their processing capacity to 40 tonnes per day, they also would like to tap into the export market, but this will require continuous support and engagement with farmers to increase their access to raw materials. Through CRAFT, Sereni has improved their quality and quantity of raw materials and improved their business efficiency.

“ I want to show other young people that agriculture can be a profitable and sustainable career, ”



Anthony Wamae's hopes in potato farming revived by Sereni.

The Muruaki Group is situated in the Kinangop Area of Nyandarua County, Kenya, an area where the CRAFT project has had a positive impact. The Group, like many other regional farmer communities, faced numerous obstacles such as a shortage of quality seeds, restricted market access, limited financial management information, and insufficient guidance on potato production. Due to their limited understanding of potato cultivation, the farmers experienced low yields and financial setbacks, prompting some, including Anthony Wamae, to shift to alternative farming ventures and economic activities and abandon potato farming.

"Our area is well known for growing potatoes, but the ever-changing weather and the unscrupulous middlemen have ensured that we are going to continue suffering. I have since decided to concentrate on dairy farming." Anthony lamented.

From September 2020 to March 2021, Mr. Wamae received training in climate-smart agriculture, conducted by the Sereni extension team. The practical sessions held at demonstration sites were particularly valuable for him in grasping the concepts. Applying his training, he successfully obtained a supply contract with Sereni Fries in December 2021 for a crop on less than 1 acre, with an expected yield of 7 tons per acre. Impressively, during the May 2022 harvest, he surpassed expectations by achieving a crop yield of 12.25 tonnes per acre.

"In this area, the best you can get is 7 tons per acre and that is when the weather is favourable. Getting 12 tons is a miracle and the neighbours are asking if this is some kind of magic!" explains Anthony.

He went ahead to explain that having a contract with Sereni ensured that he got the best prices and despite the high cost of production he was able to make huge profits. With a price of 0.19 euros per kg, he was able to rake in 2269 euros. With the cost of production approximated at 1127 euros, Mr. Wamae made a profit of 1141 euros.

"If you asked me one year ago, I would tell you this was impossible but now that I have experienced it, I know it is possible. I can now take my children to school comfortably without worrying about school fees!", said an excited Anthony.

Mr. Wamae expressed that applying the knowledge gained from the training was enlightening. He emphasized the transformative impact of having a contract, highlighting its role in providing a reliable market for his produce, in contrast to the uncertainty associated with dependent brokers. He underscored the significant improvement in production achieved using certified seeds, as opposed to recycled ones. Furthermore, he mentioned his newfound ability to implement effective soil fertility and water management practices, along with proper handling of agrochemicals for crop protection.

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Knowledge
Management
and sharing

Scaling Climate Resilience Through Agribusiness: Lessons from the CRAFT Regional Learning Event

Over six years, the Climate Resilient Agribusiness for Tomorrow (CRAFT) project has redefined how smallholder farmers and agribusinesses in East Africa respond to climate challenges. In September 2024, the project culminated in a dynamic Regional Learning Event, drawing over 100 stakeholders across Kenya, Uganda, and Tanzania—from policymakers to agri-SMEs, development partners, and farmer organizations.

Held in Nairobi, the three-day event served as a knowledge exchange platform and a springboard for future climate-smart agriculture (CSA) innovations. It showcased how CRAFT, a private sector-led initiative spearheaded by SNV and other consortium partners – Agriterro, Wageningen University and Research and previous partners for the first phase Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA), and Rabobank, with support from the Netherlands Ministry of Foreign Affairs, has worked with over 56 agribusinesses and empowered more than 300,000 farmers. Of these, 213,000 adopted at least two CSA practices, resulting in better yields for 147,000 and higher incomes for 168,000 farmers.

A Legacy of Innovation and Impact

The event celebrated key achievements, including:

- Mobilizing over €12 million in private sector co-investment via the Climate Innovation and Investment Facility (CIIF),
- Launching the CRAFT/KALRO Agro-Weather Advisory Platform to deliver localized weather forecasts to farmers,
- Driving digitalization across agri-SME operations and promoting gender-inclusive CSA practices,
- Strengthening cooperatives to aggregate produce and secure premium markets.

From enhancing the potato value chain in Tanzania to integrating indigenous knowledge with digital advisory tools, CRAFT's evidence-based interventions have proven that CSA is not just possible—it's profitable.

Insights and Opportunities

High-level remarks from government and development leaders emphasized the urgency of embedding CSA in national strategies like Kenya's Agricultural Sector Transformation and Growth Strategy (ASTGS). Discussions highlighted persistent challenges, including limited access to certified seed, financial literacy gaps, and counterfeit inputs. Yet, the consensus was clear: the future of African agriculture lies in climate-smart, market-driven, and inclusive models.

Panel sessions and group dialogues explored practical solutions—like hybrid extension models, tailored financial products for women and youth, and farmer-led seed systems. Participatory reflections underscored the need to align climate information with local realities through co-creation and community engagement.

Charting the Way Forward

The CRAFT Regional Learning Event didn't just mark the end of a project; it ignited momentum for a movement. Participants called for stronger public-private partnerships, climate-sensitive financing, and policy integration across the region. With climate threats escalating, the call to action is now: scale what works, centre the voices of farmers, and sustain the innovations that have taken root.



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Impact
that matters

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