Annual Report 2024

Climate Resilient Agribusiness for Tomorrow project

September 2025

Contents

List of abbreviations and acronyms

AICCRA	Accelerating Inputs of CGIAR Climate Research for Africa
AMCOS	Agricultural Marketing Cooperative Society
BC	Business Champions
BDS	Business Development Services
CRA	Climate Risk Assessments
CRAFT	Climate Resilient Agribusiness for Tomorrow
CSA	Climate Smart Agriculture
CV	Climate Variability
EKN	Embassy of the Kingdom of Netherlands
DFCD	Dutch Fund for Climate and Development
DGIS	Director General for International Cooperation
DJF	December January February season
EBIDTA	Earnings before interest, depreciation, and tax
FFS	Farmer Field School
FI	Financial Institution
GESI	Gender Equality and Social Inclusion
GIZ	German Development Service
GMA	Gross Margin Analysis
HZPC	Het Zuidelijk Propagatie Centrum (Dutch potato breeding company)
ICT	Information and Communication Technology
KALRO	Kenya Agriculture and Livestock Research Organisation
KAOP	Kenya Agricultural Observation Platform
KES	Kenyan shillings
KPI	Key Performance Indicators
MAAIF	Ministry of Agriculture, Animal Industries and Fisheries
MAM	March April May growing season
MEL	Monitoring, Evaluation and Learning
MoFA	Dutch Ministry of Foreign Affairs
MoU	Memorandum of Understanding
MSP	Multi Stakeholder Platforms
MT	Metric Ton
NMS	National Metrological Services
NOSP	National Oil Seed Programme
NPV	Net Profit Value
PAT	Profit after tax
PMU	Project Management Unit
PSD	Private Sector Development
QDS	Quality Declared Seed
SACCO	Savings and Credit Cooperative Organisation
SDM	Service Delivery Model
SHF	Small Holder Farmers
SME	Small and Medium Sized Enterprise
SMS	Simple Mail Service
SOND	September October November December season
TACRI	Tanzania Coffee Research Institute
TARI	Tanzania Agricultural Research Institute
TMA	Tanzania Meteorology Agency
TOSCI	Tanzania Original Seed Certification Institute
ToT	Training of Trainers
TSH	Tanzania shillings
UGX	Uganda shillings
WENR	Wageningen Environmental Research
WRS	Warehouse Receipt System

Executive summary

This annual narrative report covers the period January to December 2024. It marks the completion of the first year of the two-year extension period (2024-2025) of the Climate Resilient Agribusiness for Tomorrow (CRAFT) project. In the final two years, the project concentrates on three main intervention areas:

1. Supporting prioritized CRAFT Business Champions (BCs) to improve their performance and impact on SHFs in terms of income and farming practices
2. Making actionable climate analysis products available to relevant stakeholders for planning and decision-making
3. *3.* Contributing to institutionalised support for CSA roll-out and scaling

When looking at the cumulative results achieved by the end of 2024, the project has gotten a lot closer to achieving the initial targets set in 2018 but has not fully reached them. The project teams completed business plan reviews and multiple capacity assessments for prioritized agribusinesses (business champions). A clear picture of growth has emerged.

The 2024 annual review confirmed the widespread adoption of sustainable, climate-smart farming practices amongst smallholder farmers in the three countries. Farmers are implementing adaptation strategies related to water management, farmland preparation, crop diversification, use of drought-resistant crop varieties, pest and diseases control, and soil health and conservation. Regional variations in adaptation measures exist and are aligned with localized climate risks, landscape typology, and level of integration in national programmes and service networks. Over 90% of the farmers trained in climate smart agricultural practices are implementing practices and technologies that improve the management of their farms, increase productivity, reduce losses, diversifying their sources of livelihood, thereby strengthen their ability to adapt to climate change-related stresses and shocks.

Throughout 2024, the CRAFT project contributed to supporting decision-making with tailored climate and crop information. The work focused on four main pillars: adjusting climate risk assessments, generating decadal forecasts, producing short-term suitability maps, and assessing climate change impacts on cropping systems—including adaptation scenarios.

In terms of supporting the institutional landscape for the roll-out and scaling of CSA in the three countries, the three country teams have made valuable contributions to multistakeholder dialogue platforms, as well as facilitated sub-national strategic planning processes and influenced improvements in CSA services provision to farmers such as access to improved seeds, weather information and soil testing.

In the final year of the project, the CRAFT project will wind down its support to the prioritized business champions. Climate change impact stories will be finalized for selected cropping systems in the three countries, which are intended to help communicate complex climate science in a user-friendly and decision-relevant format. Handing-over and exit from institutional support roles will be concluded by the end of September. The final quarter of 2025 will be dedicated to finalizing learning products, administrative project closure activities, and final reporting.

1. Introduction

1.1 This report

This annual narrative report covers the period January to December 2024. It marks the completion of the first year of the two-year extension period (2024-2025) of the Climate Resilient Agribusiness for Tomorrow (CRAFT) project. The CRAFT project is funded by the Dutch Ministry of Foreign Affairs (DGIS) and commenced implementation in 2018. The structure of this annual report is aligned with the approved extension proposal document, reflecting the sharpened priorities set for the final two years of the project. The report is based on annual CRAFT survey data, supplemented by deep-dive focus group discussions, field observations, and stakeholder consultations.

1.2 Background

The CRAFT project set out in 2018 with the objective to contribute to the increased availability of accessible and climate resilient food for the growing population in Kenya, Tanzania and Uganda. Seven crops/value chains (potato, sunflower, common bean, sorghum, green gram, soya bean, and sesame) were selected as entry points for interventions aimed at promoting the adoption of climate smart agricultural (CSA) practices by smallholder farmers (SHFs) to enhance their ability to adapt to climate change related impacts on their livelihoods. Climate resilience is equated with reduced vulnerability to extreme weather events by adopting measures that reduce harvest losses, increase yields and incomes, build household buffers and diversify livelihood sources to better absorb and recover from climate shocks and stresses. The project set out to achieve three outcomes:

- Increased adoption of climate smart practices and technologies among SHFs, agri-Small and Medium Enterprises (SMEs) and cooperatives.
- Increased business performance for agribusiness SMEs and cooperatives due to climate related investments (25% managed by women and/or youth).
- Improved enabling environment favourable for large scale roll out of climate smart agriculture.

In terms of targets to be achieved by the end of 2023, the project aimed to:

- Increase production and income for 300,000 SHFs through the adoption of CSA practices and technologies in arable crop production farming systems.
- Improve the business performance for 50 small and medium agribusiness enterprises (SMEs) and 30 cooperatives (25% of which are managed by youth and women) in 5 selected value chains (VCs).
- Promoting climate resilient and sustainable food production on 600,000 hectares (Ha) by creating an enabling environment for scaling CSA practices.

1.3 Achievements 2018-2023

Some of the key results achieved over the 2018-2023 period are highlighted below:

Figure 1: Selected cumulative progress indicators for all three countries by end of 2023

Over 55 competitively selected agri-SMEs and cooperatives across the three countries were awarded with grants (maximum EUR 200k per business) for promoting the application of climate change adaptation practices and technologies in their value chains. A total of EUR 7 million in grants were matched by over EUR 10 million in (cash and in-kind) contributions from the agribusinesses.

1.4 The Extension phase (2024-2025)[1]

1.4.1 Rationale for the Extension

CRAFT faced internal and external challenges to achieving targets during the initial 2018-2023 implementation phase. CRAFT found that the number of agri-SMEs and cooperatives of sufficient size and capacity to deliver CSA was lower than expected. The range of CRAFT objectives was too broad and the targets too optimistic. Project work suggested real potential but limited hard evidence of results for SHFs and scalability could be shown.

Based on achievements realized by 2023, it is acknowledged that results against targets could be improved, and longer-term impact and sustainability of project interventions be further strengthened. An extension was proposed by SNV and approved by DGIS, ultimately for two additional years (2024-2025).

1.4.2 Priorities for the Extension

The prime focus in the extension phase is on further strengthening sustainability and long-term impact of CRAFT interventions as the agribusinesses and smallholder farmers continue their transition to imbedding CSA practices and technologies in their economic activities for improved climate resilience. The project no longer provides any finance directly to BCs during the Extension. To reduce donor grant dependency and stimulate sustainability, self-financing of project participation in activities is encouraged.

Project efforts should build on the experiences gained during the previous phase while placing more emphasis on deepening the evidence base to support causal links between outputs, outcomes, and impact. This further informs lessons learning and dissemination of results to support scaling up the adoption of CSA and further boosting climate change resilience beyond the project's scope. In the final two years, the project concentrates on three main intervention areas:

1. **Supporting prioritized CRAFT Business Champions (BCs)** to improve their performance and impact on SHFs in terms of income and farming practices. The focus is on further enhancing the capacity of BCs to provide services that enable SHFs to access improved inputs, increase yields and incomes, use innovations, and replicate CSA practices. 19 BCs were selected out of the 56 that received CRAFT grant funding in the previous phase. 10 of the 19 are cooperatives. See list of selected BCs in table 1. Although priority is given to the 19 selected BCs, some activities have been opened to non-selected BCs.
2. **Making actionable climate analysis products** available to relevant stakeholders for planning and decision-making. The products will include short-term crop-specific suitability maps based on decadal weather forecasts, assessments of the impact of climate variability, and of the effectiveness of climate adaptation strategies on selected cropping systems for the near future (> 5 yrs).
3. **Contributing to institutionalised support for CSA roll-out and scaling**, through participation and information sharing in selected multi-stakeholder platforms and dialogue forums.

[1] CRAFT Extension Proposal, submitted by SNV in September 2023 and approved by DGIS in November 2023

2. Intervention area 1: Support to priority CRAFT Business Champions

2.1 The prioritized business champions

19 prioritized BCs were selected from the initial portfolio of BCs, based on their potential for business growth and achieving social impact at scale. Performance-related selection criteria were used to arrive at the prioritized list. The selection criteria included meeting co-investment targets, good accounting practices (clean audits), achievement of business targets, existence of a strong service delivery model linked to SHFs, and indications demonstrating intention to scale CSA for business growth. For some project activities, participation is open to all BCs from the previous phase. Regular contact is maintained with all non-prioritized BCs and requests for their cooperation during annual surveys and ad hoc progress updates are normally granted.

Table 1: The 19 prioritised BCs

Country	Category	Name of BCs
Kenya	Agri-SMEs	Sereni Fries, Shalem, Quinum, and FreshCrop
	Farmer cooperatives	Starlight, Marakwet Highlands, and Kaplomboi
Uganda	Agri-SMEs	Okeba Uganda Ltd and Byeffe Foods Ltd
	Farmer cooperatives	Alito, Sebei, P'KWI, and Kisoro District
Tanzania	Agri-SMEs	East Africa Foods, Temnar Company, and Mwenge Sunflower Mills
	Farmer cooperatives	Isowelu, Mpui, and Rift Valley Cooperative Union

2.2 Objectives for supporting priority BCs

This intervention area aims at strengthening business viability and effectiveness of service delivery to SHFs focusing on improved quality, accessibility, and affordability of climate smart inputs and services, selected based on cost-benefit analyses and effectiveness for enhanced climate adaptation of SHFs. This requires interventions aimed at strengthening the capacity of the selected BCs to provide, maintain and grow their service delivery to SHFs in the long-term. The interventions address specific strategy development and management needs of the BCs. Service delivery to SHFs is a core business for the prioritized BCs.

2.3 Activities and results achieved in 2024

Data on the project's key performance indicators (KPIs) was collected for 2024 by means of the annual survey tool and deep-dive interviews conducted early 2025. The table below captures the key results achieved in 2024 (January to December) and presents this data in the context of total project achievements by end of the previous phase and compared with the original targets.

Key Performance Indicators	Original targets	Cumulative 2023	Achieved 2024	Cumulative 2024	% target achieved
Indicator 1: Number of smallholder farmers with increased income	300,000	188,222	16,995	205,217	68%
Indicator 3: Number of smallholder farmers whose farming enterprise became more resilient to climate stresses/shocks	300,000	207,020	17,585	224,605	75%
Indicator 4: Number of smallholder farmers that have applied 2 or more climate resilient farming practices in the past 12 months	300,000	270,340	21,684	292,024	97%
Indicator 5: Number of hectares of farmland with agroecosystems that became more resilient to possible stresses and/or shock	600,000	138,955	19,041	157,996	26%
Indicator 9: Number of smallholder farmers using CS inputs and services	300,000	308,710	12,218	320,928	107%
Indicator 11: Number of smallholder farmers trained in CSA	350,000	316,630	14,437	331,067	95%
Indicator 12: Number of hectares of farmland reached	600,000	261,604	23,833	285,437	48%
Indicator 36: Number of smallholder farmers using weather information services	1,000	157,610	6,038	163,648	16365%
Indicator 37: Number of smallholder farmers using index-based insurance products	1,000	33,007	692	33,699	3370%
Indicator 38: Number of smallholder farmers who received extension services on CSA	1,000	265,986	14,437	280,423	28042%
Indicator 39: Number of extension workers (government and BC staff) trained on CSA	1,000	2,354	12	2,366	237%

Table 2: Selected KPIs

Regarding the revised targets set for the Extension phase, the project team has in 2024 exceeded the additional 15% on 2022 results regarding four selected indicators (number of farmers trained, increased income reported, adoption of CSA practices, and resilient farmland.

When looking at the cumulative results by end of 2024, the project has gotten a lot closer to achieving the initial targets set in 2018 but has not fully reached them. The gap is largest for the KPIs on resilient farmland[2] (#5 and #12) and on number of SHFs reporting increased income (#1).

2.3.1 Improved business performance

The table below provides a summary of main activities and key result areas worked on during the year in relation to strengthening the capacities of BCs for improved business viability and effectiveness of service delivery to SHFs.

Capacity strengthening areas	Result areas
Strategic business plan reviewing (all BCs)	Updated strategic business plans with accompanying investment plans/memos, cashflow projections
Good business practices and investment readiness (all BCs)	Improved systems and practices in governance, financial management, administration, legal compliance, and overall investment readiness
Market exposure & information gathering (as per interest/need)	Knowledge acquisition on potato value addition, warehouse receipt system through exchange visits and peer-to-peer learning events
Accessing finance (as per interest/need)	Small grants, loans, and equity mobilized by various BCs.
Strengthening financial management (cooperatives)	Models for equity contributions, savings mobilization, and retained earnings reinvestment are in place. New revenue mobilization models in place
Effective and sustainable service delivery to SHFs (all BCs)	Diversified services. Improved cooperative service delivery in seed multiplication, climate-smart inputs, financial and advisory services, and Infrastructure.
Integration of (Gender Equality & Social Inclusion (GESI) in internal business practices and in supply chains (as per interest/need)	Strengthened awareness of the business case for greater GESI integration in business practices and supply chains (focus on women and youth). Trained field staff in designing and facilitating GESI transformative interventions at farmer level. Increased participation by women and youth in CSA service delivery.
Governance and leadership trainings (cooperatives)	Youth and women councils are now formally part of governance in all Tanzanian cooperatives and is being piloted in Kenya and Uganda

Table 3: Overview of activities undertaken in 2024 on capacity strengthening of BCs

[2] The majority of SHFs in the three countries own less than 2 acres of farmland, which is roughly the equivalent of one hectare. Given the target of reaching 300,000 SHFs, the targeted farmland should logically have been 600,000 acres (not hectares).

BCs demonstrated remarkable progress in 2024, with significant achievements in revenue generation, production volumes, and technology-driven service delivery across various value chains. CRAFT's co-investment model catalysed revenue growth, profitability, and resilience for most BCs despite market, policy, and climate shocks. Growth was driven by CSA adoption including certified seed, improved soil fertility, and integrated pest management, which boosted farmer productivity and aggregation volumes. New income streams emerged from value addition such as potato processing, mechanization services, CSA advisory packages, and input sales. Farmers were central to this performance. Higher adoption rates secured a consistent and quality supply base.

2.3.2 Business growth outlook[3]

In 2024, CRAFT completed business plan reviews and multiple capacity assessments, producing updated strategic plans, investment memos, and Service Delivery Model (SDM) documentation for BCs. A clear picture of growth has emerged. Revised business plans integrate CSA as a core service, with diversified revenue models and explicit farmer inclusion strategies. Several BCs[4] have developed investment memos and financing proposals. Ability to attract private capital has generally improved, evidenced by the number of loans and grants already approved during the project period. About 90% of the BCs have successfully mobilized some form of financing, albeit with rather modest ticket sizes. Acquiring growth capital is of course contingent on being able to present convincing business viability prospects.

Business viability refers to the ability of a business to survive, sustain itself, and grow over the long term. Two vital components are financial viability and market viability. When looking at financial viability of the BCs, we analysed revenue versus costs, profit margins, and cashflow stability. When looking at market viability, we assessed demand for the products or services provided by the business, the target market size and growth trends, and competitors. In general, BCs envisage market share growth, expanded farmer networks, and new product lines. Improved income stability and resilience will become increasingly evident in the near future. The BC examples below illustrate positive longer-term business viability:

- **Okeba Uganda Ltd**
  To determine financial feasibility, a 3-statement financial model was developed, encompassing the income statement, balance sheet, and cash flow statement. This approach provided a comprehensive overview of the company's financial situation and long-term sustainability beyond CRAFT project. Okeba Uganda Limited Income statement reflects net profits of Euro 129,628 in 2023, Euro 222,101 in 2024, and projected to be Euro 254,319 in 2025. With reference to the financials, the company's revenue projections are based on its involvement in CSA practices and the support it provides to smallholder farmers, and the local market facilitator business model. Okeba Uganda Limited generates its income primarily through the sale of soybean, beans and maize grain and seeds. Revenue growth is projected at 10% annually, assuming a stable selling price while increasing the quantities sold over the next five years. Okeba Uganda Limited sustainability strategy involves diversified revenue streams to other value chains and business such as logistics. Securing long-term contracts with processors, continuous training through LMFs to ensure that farmers stay up to date on CSA practices while also providing extension support and aggregation on behalf of Okeba. Seed Multiplication: High-quality seeds will continue to be available through its agro-input hubs located in various locations which will ensure access of inputs and extension support services by farmers. Financial projections indicate that Okeba's performance will significantly improve in the next four years. Operating profit is projected to increase to Euro 391,768 by 2029 with an operating profit margin of 16%. These projections assume that production volumes remain stable. The business

[3] EUR amounts referred to throughout this report are converted from original amounts in UGX, KES, and TZS based on the following exchange rates of 1 EUR = 155 KES, 1 EUR = 4,149 UGX, and 1 EUR = 2,940 TZS

[4] In Uganda, 17 BCs have developed investment memos. A BC investment profile booklet has been compiled.

shows a positive Net Present Value (NPV) of Euro 357,903 over a five-year period. This result indicates that the expected future cash inflows will exceed the costs incurred which demonstrates strong profitability potential, making Okeba Uganda Limited financially viable. It also indicates that the implementation of CSA practices which will enhance Okeba's overall financial performance and contribute to its long-term viability.

- **Sebei Farmers' Cooperative (Uganda)**
  The business plan (for the SACCO and the Cooperative) includes the expansion of loan products, adjustments to interest rates, and improving the working capital management. These solutions aim to boost revenue and profitability while fostering greater member participation. The proposed solutions are designed to reduce reliance on external grants and strengthen financial stability through diversified revenue streams and enhanced operational efficiencies. These measures will make sure that the SACCO and Cooperative can manage costs, streamline operations, and lessen dependency on grants, while ensuring that the Cooperative continues implementing CSA practices. The SACCO and cooperative have also maintained focus on controlling its cost base, with salaries and wages comprising 31% of total administrative expenses. Post-separation, the SACCO has effectively reduced its exposure to SNV-related expenses, which accounted for 53% of costs in 2022 but fell to 3% in 2023. This cost efficiency creates headroom for reinvestment into core activities that drive growth. The SACCO's future profitability will also depend on its ability to diversify revenue sources, particularly by increasing interest income and expanding its financial services to members. With these sustainability initiatives in place, projections for 2025 show promising growth in key financial metrics for both the SACCO and the Cooperative. A 14% increase in revenue is anticipated, driven by higher interest income from loans, expanded loan disbursements, and enhanced sales from value-added grain products. Profitability ratios are also expected to strengthen, with the gross profit margin projected to reach 38% and the net profit margin to 6% in 2025, 41% and 9% in 2026, and 41% and 11% in 2027. These optimistic projections are further supported by a forecasted Net Present Value (NPV) of EUR 148,048 signalling long-term financial sustainability. Sebei SACCO's financial analysis projects a positive Net Present Value (NPV) of Euro 148,060 over a five-year period. This positive NPV demonstrates that, when future cash inflows are adjusted for time value and compared to the associated costs, the SACCO will generate surplus value, reinforcing the financial soundness of the investment.

- **FreshCrop Ltd - Kenya**
  FreshCrop is a fast-growing potato seed producing company and upcoming agri-processor supporting over 15,000 smallholder farmers (SHFs) across key potato-growing counties, including Nakuru, Narok, Nyandarua, Elgeyo Marakwet, and Bomet. The company aggregates more than 10,000 MT of ware potatoes annually—valued at over €1.61 million—and produces 6,000–7,000 MT of certified seed potatoes worth over €2.58 million. To further strengthen its value chain, FreshCrop has established two subsidiaries: FreshChips, which focuses on processing frozen and fresh chip cuts for both institutional and retail markets, and FreshVets, which specializes in the sale of agrochemicals and farm inputs. FreshCrop also owns and leases approximately 1,100 acres used for seed production, processing, and demonstration plots—strengthening its vertically integrated model that boosts farmer productivity and resilience. FreshCrop's financial model demonstrates strategic foresight and sustainability. With a total planned investment of €4.51 million, the company expects a payback period of just 41 months—well within its internal 60-month benchmark. The business boasts a Net Present Value (NPV) of €5.03

million and an Internal Rate of Return (IRR) of 22.4%, exceeding the 18% Weighted Average Cost of Capital (WACC). Revenues are projected to grow from €1.2 million in 2024 to €17.78 million by 2030, driven by agro-shop sales, ware and rotational crop sales, and value-added processing through FreshChips. EBITDA is expected to rise from €659,897 in 2025 to €5.99 million by 2030, with PAT increasing from €274,501 to €3.81 million. With a strong capital structure, Return on Assets improving from 25% to 44%, and Return on Equity peaking at 69%, FreshCrop shows solid growth, financial health, and scalability supported by reinvested earnings, manageable debt levels, and donor funding.

- **Starlight Cooperative (Kenya)**
  Since its registration in 2014, Starlight Farmers' Cooperative Society (FCS) has steadily grown from its peace-building origins in seed potato multiplication to a diversified farmer-owned enterprise with active engagement in both the potato and dairy value chains. Over the past decade, the Society has transitioned from a small aggregation initiative into a structured agribusiness with membership of 720 farmers, a financial arm through Starlight Wakulima SACCO, and a strategic plan that anchors its growth on scaling seed multiplication, ware potato trade, milk bulking, animal feeds production, mechanization, and farmer services. In the base year (2024), Starlight FCS recorded turnover of KES 10.9M (€70,500) with modest profitability (Net Margin 1%). Projections show turnover will rise significantly to KES 24.6M (€158,000) in 2025, KES 43.3M (€279,000) in 2026, and more than KES 141.7M (€914,000) by 2029, reflecting a compounded annual growth driven by expanded land under seed potato production, increased dairy volumes, and new ventures like feed milling. Gross profit is projected to grow from KES 2.4M (€15,800) in 2024 to over KES 50.3M (€324,000) in 2029, while Profit After Tax strengthens from just KES 52,000 (€335) in 2024 to KES 33.3M (€215,000) by 2029. Notably, gross margins are expected to improve from 23% in the base year to 36% in 2029, while net profit margins rise from 1% to 28%, showing both revenue growth and improved efficiency.

The financing plan underpinning this growth is multi-pronged. First, the Society projects steady increases in share capital contributions, with 200 new members added annually contributing €32 each, raising equity to €22,400 by 2029. Second, external debt financing through a €42,600 loan at 18% interest is earmarked for tractors, feed mills, and greenhouses, with repayments fully covered by operational surpluses thanks to a debt coverage ratio improving from 2.19× in Year 1 to 28× by Year 5. Third, ploughed back surpluses will provide internal capitalization, with reserves projected to grow from a negative €20,400 in 2024 to €473,000 by 2029. Cashflow modelling indicates stability, with cumulative net cashflows turning positive from Year 2 and achieving €529,000 by Year 5. Investment appraisal confirms viability, with a payback period of 26 months and a Net Present Value of €30,500 at 18% WACC. A major institutional milestone was achieved in July 2024, when Starlight FCS, driven by farmers' demand for affordable credit, operationalized Starlight Wakulima SACCO to provide loans for farm inputs, dairy meals, veterinary drugs, and related needs. This financial services arm is expected to complement the Society's business model by ensuring farmers have reliable access to credit, thereby boosting production, improving repayment culture, and strengthening the Society's revenue base through interest income and increased trading volumes. By 2029, the Society is projected to achieve nearly 13× growth in turnover, robust profitability, and a strong capital base, underpinned by improved cashflow stability and well-planned investments.

- **Rift Valley Cooperative Union (Tanzania)**
  RIVACU was supported with the review of their 5-year business plan which included the workplan, financing plan and cash flow projection. RIVACU plans to scale up its activities by increasing the business volume initially targeting business lines that have higher impact to the RIVACU members' economic wellbeing. The economic activities targeted for scale up are: 100acre coffee farm repossession, development and production of coffee parchment; common beans seeds production and marketing; sorghum production in place where wheat was being grown, wheat market has tumbled in the past two years; scaling up warehouse receipt system for pigeon peas, sesame and lentils; and investment in sunflower processing plant by modifying the shed, investment in an integrated oil expeller of 10Mt/day capacity. Both business lines are designed to integrate climate-smart practices, reduce post-harvest losses, and enhance market competitiveness. Through targeted investments, RIVACU will increase productivity and value addition, enabling its members to transition from subsistence to commercial farming. The investments are financed through various sources with a total investment of TZS 667m across the four years. Total investment drops significantly over the years, starting at TZS 430.7M in 2025 and tapering off to TZS 18.3M by 2028.

- **Mwenge Sunflower Oil Mills Company (Tanzania)**
  Mwenge has managed to grow the company from a humble beginning to a medium-scale company (by the value of assets). Mwenge business plan aim to scale up its activities by deepening its sunflower processing business (oil pressing) by acquiring capabilities to increase capacity utilization from the current 30% to 60%. Mwenge will continue to scale CSA practices by Use energy-efficient machinery to reduce emissions, convert oil cake to animal feed, provide inputs credit to farmers (improved seed variety, fertiliser) and extension services. The market demand for sunflower oil is strong; it is forecast to remain strong as population and disposable income increase. Access to a wide geographical area is growing with improvements in transport (basic facilities and operating equipment). Mwenge Return on Investment (ROI) projected to increase starting at 18% in Years 1 and 30% in Year 5. he project's financial performance as per Net Present Value (NPV) is positive at a discount rate of 10% indicating that the project expected to generate value over its lifespan. The company's net profit, after accounting for a 30% tax on profits where applicable, will be 6.7% net profit margin from year 1 (2025) and grow up to 12% in Year 5 (2025).

2.3.3 Improvements in sustainable service provision for SHFs

Before CRAFT, service delivery to smallholder farmers (SHFs) was fragmented, donor dependent, and heavily constrained by poor input quality, limited mechanization, weak market linkages, and inaccessible climate and financial services. Farmers relied largely on uncertified seed, generic training, and exploitative offtake arrangements. By 2024, CRAFT has transformed this landscape through integrated, self-financing Service Delivery Models (SDMs) embedded within BCs. This shift was achieved through private sector partnerships on certified seed, soil-specific fertilizer blends, and bio-fertilizers at scale. Certified potato and sorghum varieties replaced low-quality seed, directly increasing yields and resilience. Mechanization and post-harvest efficiency improved mechanized land preparation affordable. Mobile threshers processing up to 5 tons per hour replaced manual shelling, reducing post-harvest losses from over 30 percent to under 10 percent in some BCs. Digital and climate information services have become more readily available to SHFs through BCs and public sector-supported platforms which delivers localized weather advisories enabled timely decision-making. Weatherindexed insurance pilots have begun mitigating climate shocks, albeit still on a small scale. Extension and training models were also strengthened. Trainer-of-Trainers (ToT) networks linked to demonstration plots ensured expansion of last-mile CSA training.

In 2024, CRAFT focused on sustainability by phasing out non-viable SDMs and embedding clear revenue streams such as mechanization fees, input sales margins, aggregation commissions, and SACCO-based credit into BC business plans. Partnerships with processors such as Sereni Fries, financial institutions such as Equity Bank, and digital platforms such as DigiFarm solidified market and finance access. Selling produce by kilogram rather than bag introduced transparent, quality-based pricing, directly improving farmer incomes.

With private sector-led SDMs now embedded in the services packages of BCs, CSA service delivery is expected to expand beyond CRAFT partners over the next decade, driven by growing demand for climate-resilient produce, stronger financial linkages, and improved agribusiness capacity.

In Uganda:

- Alito Joint (Uganda) supported 250 seed multipliers, distributed eight metric tonnes of foundation seed, and targeted 70 metric tonnes by project close.
- P'KWI (Uganda) supplied improved sunflower seed to farmers, contributing to increased yields and processing potential.
- Sebei SACCO and Alito Joint (Uganda) developed investment plans to acquire rice and oil mills, respectively, with well-outlined financing models involving member shares and retained earnings.
- Sebei SACCO (Uganda) increased member access to agricultural loans, as a result reporting a 213% increase in membership and a significant rise in turnover.

In Kenya:

- Sereni and FreshCrop (Kenya) are operationalizing processing plants and expanding into regional and digital markets.
- Shalem and Quinam (Kenya) are embedding soil testing and mechanization into their service packages.
- FreshCrop (Kenya) is employing a hub-based model providing bundled extension, input sales, and mechanization in one location, improving efficiency and cost recovery. The bundled services include certified seeds sourced from Dryland Seeds Ltd and KALRO, agro-inputs supplied by Twiga, Bayer, and OCP, and mechanization services through partnerships with Hello Tractor, Ndume, and Zetor. Farmers also benefit from financial support via Cooperative Bank and DigiFarm, along with timely weather advisories from the Kenya Meteorological Department.
- Starlight SACCO (Kenya) expanded its CSA-linked financial products through a landmark partnership with the Shell Foundation, unlocking a KES 10 million revolving loan facility. This supports access to solar irrigation, biogas units, and cold storage facilities. Also, Starlight reached 300+ members, disbursing KES 37.2 million in affordable loans, and integrating DigiFarm and Coop Bank for blended finance.
- Nandi Potato Cooperative (Kenya) benefited from Aceli Africa's results-based financing, subsidizing mechanization services and expanding outreach by 30%.
- Marakwet (Kenya) mobilized KES 1.95 million via member shares, laying the groundwork for a SACCO in 2025.

In Tanzania:

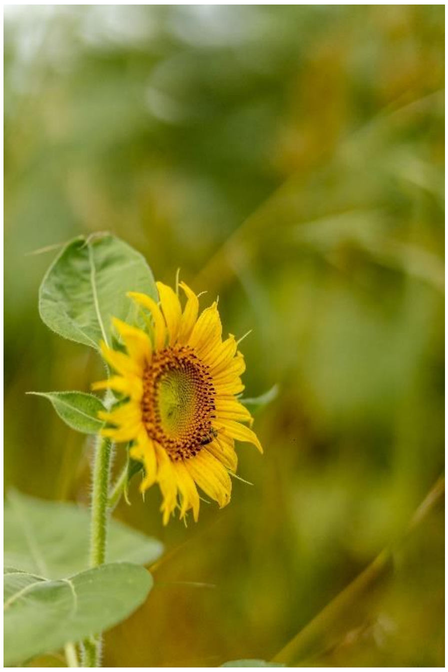
- Isowelu AMCOS (Tanzania) established a local seed breeding unit to address deficits in certified seed. They obtained finance from CRDB bank for inputs credit worth TZS 1.4 Bn for its >300 members to invest in potato production.
- RIVACU through its new warehouse receipt system sold TZ 16bn worth of pigeon pea and lentil. They Union has welcomed two more AMCOS, bringing the total active membership to 32 AMCOS.
- East Africa Foods linked >500 potato farmers with financial institutions to access agri-loans form CRDB, NMB and Equity banks.

- MPUI AMCOs received funds of TZS 381 million from GIZ to scale CSA technologies and practices demonstration in maize value chain. Also, Mpui entered a supply contract with a maize buyer for 2,000MT per season.
- Mwenge Sunflower Oil Mills is working with 8,900 SHFs cultivating sunflower in several districts in Singida Region, Tanzania's main sunflower growing area. This year the company sourced sunflower seeds from 5,000 farmers under formalized contract farming agreements.

2.3.4 CRAFT in Uganda (2024)

Cross-border market exploration

The team organized a Business-to-Business (B2B) Cross-Border Market Exploration Workshop, bringing together cooperatives and agri-SMEs to explore cross-border trading opportunities. The training aimed at connecting Business Champions (BCs) with potential buyers, off-takers, and other stakeholders in the Busia grain market, a crucial hub for trade between Uganda and Kenya. The workshop provided participants with practical insights into market research, regulatory frameworks, logistics, and risk management, with a focus on fostering sustainable cross-border trade. The participants were taken through export regulations in target regions (East Africa and the Great Lakes), key compliance requirements (certificate of origin, phytosanitary certificates, licenses, permits, quality standards), and understanding of customs processes and documentation. The workshop highlighted the importance of market research in cross-border exploration, and introduced tools and techniques for conducting market analysis, identifying target markets, and evaluating market potential. As a result, one of the workshop participants (Acila Enterprises Ltd) is now exporting soy cake (a byproduct of their soybean processing) to Kenya as animal feed.



Climate outlook events

The team also supported the Uganda National Meteorological Authority to conduct climate outlook events aimed at providing CSA weather information to interested stakeholders. As a result, BCs are receiving timely and first-hand weather information from an accredited department to guide their investment decision making and to recommend farm management actions to their farmers.

Harvest Money Expo

In partnership with the Embassy of the Kingdom of Netherlands in Kampala, the CRAFT team supported BCs to participate in the harvest money expo in Kampala and the 30th National Agricultural show at Jinja show ground which was organized by Uganda National Farmers Federation (UNFFE) together with the Ministry of Agriculture Animal Industries and Fisheries (MAAIF). BCs exhibited their products, made sales and established partnership opportunities which strengthened their business operations. Some of the partners that exhibited include RECO industries, Byeffe Foods Limited, P'KWI, Alito Joint Cooperatives and AgriNet Uganda Limited.

Accessing capital

The team linked Yunus Social Business with Acila Enterprises Limited, resulting in an investment of EUR 200,000. Potential investment opportunities are being explored between Aceli Africa and Okeba Uganda Ltd and Sebei Farmers SACCO.

Training with a farming systems lens

The Uganda team with support from a CRAFT PhD candidate and WUR team conducted refresher training for trainers of trainers and BC staff with focus on farming system lens. The training focused on CSA and farming system approaches to equip participants with the necessary knowledge and skills to cascade to the smallholder farmers. The training adopted a participatory approach, combining theoretical sessions with hands-on practical exercises and group discussions. Instructional methods included lectures, presentations, case studies, and demonstrations. Resources such as training manuals, visual aids, and videos were utilized to enhance learning.

2.3.5 CRAFT in Kenya (2024)

Declining revenues

In 2024, several business champions experienced a decline in financial performance due to a range of operational and market-related challenges.

- Marakwet Highlands Farmers' Cooperative saw a significant drop in revenue after it was unable to sell the fertilizer it had stocked for farmers in 2023. This was largely attributed to farmers opting for government-subsidized fertilizer, which offered more competitive pricing and reduced demand for the cooperative's inventory.
- Similarly, Kaplomboi ROTU Cooperative, which had previously benefited from a supply tender with the World Food Programme (WFP) in 2023, faced a sharp revenue decline in 2024 due to the absence of similar tenders during the year.
- FreshCrop Limited encountered a major setback following a widespread outbreak of Blackleg Disease that affected its seed potato harvest. Most of the harvested seed was deemed unfit for sale, and after inspection, KEPHIS declined to certify the seed for distribution, leading to significant revenue losses.
- In the case of Nandi Cooperative, late land preparation and delayed planting reduced the total acreage under seed potato production. This scale-back in production negatively impacted their overall income for the year.

Diversified access to finance

BCs accessed over KES 70 million through alternative financing models, reducing reliance on traditional loans.

- Kaplomboi Cooperative utilized KES 1.5 million for produce buyback
- FreshCrop Ltd and Sopa Supplies secured KES 37 million and KES 29.6 million respectively to scale processing and climate-resilient technologies.
- Sereni Fries obtained KES 4.2 million for product diversification and targeted institutional markets.
- Fresh Crop's collaboration with Platinum Credit further enabled smallholders to access mobile-based loans for inputs and mechanization.
- Starlight Cooperative and the Cooperative Bank of Kenya collaborated under a Shell Foundation initiative. Shell provided financing to the bank to cap interest rates on loans extended to cooperative members, enabling Starlight farmers to access credit at rates significantly lower than market averages. Through this arrangement, farmers were able to invest in water tanks, solar water pumps, biogas systems, and drip irrigation kits. The partnership also facilitated access to technical support from organizations such as Kickstart International, which worked alongside Cooperative Bank to support farmers with appropriate technology solutions.

Buffering yields against inconsistent rainfall

CSA practices demonstrated their ability to buffer yields against inconsistent rainfall, a recurring challenge for all value chains. Minimum tillage, mulching, and drought-tolerant varieties preserved soil moisture and stabilised production. For example, Kamara farm maintained 520 kg of potatoes from 1/8 acre under conservation agriculture, while neighbouring conventional fields suffered significant losses.

MAM 2024:

- Potato (Starlight, Nandi, Marakwet Highlands): Certified Shangi and Challenger varieties under mechanised chisel ploughing, soil-test-based fertiliser application, and integrated pest management produced up to double the yield of conventional plots. This translated into higher volumes of marketable potatoes, boosting household cash flow.
- Sorghum (Quinam): Drought-tolerant Gadam and Sila varieties under minimum tillage achieved stronger germination, plant vigour, and higher gross margins. ROI exceeded 70%, proving profitability even in ASAL conditions.
- Beans (Starlight): Chelalang and Nyota varieties managed with soil fertility management and pest control yielded more and attracted premium prices, confirming cross-crop benefits.

OND 2024:

- Potato (FreshCrop, Starlight, Marakwet Highlands): Use of certified seeds combined with mechanisation yielded 7.5–9.0 MT/acre, compared to lower yields in manual systems. Mechanised CSA plots maintained quality tuber size despite variable rainfall, leading to higher market prices and stronger gross margins.

- Integrated Farms (Starlight): Smallholder farms combining potatoes with dairy fodder or vegetables showed both yield gains and diversified income streams (e.g. 1,840 kg potatoes harvested from ¼-acre CSA plot vs 190 kg from conventional plot, while also producing fodder to support dairy sales).
- Sorghum (Quinam): CSA plots yielded 2070 kgs/acre vs. 720– 1350 kg/acre in conventional plots. The resilience benefit was evident as CSA fields sustained yields despite erratic rainfall patterns.

Alternative service delivery approaches to CSA training and extension

While the program's foundational Trainer of Trainers (ToT) model remains central, enabling farmer adoption of CSA practices and acting as vital linkages between farmers, BCs, and markets, several BCs have advanced beyond this structure to pioneer innovative service delivery approaches.

- Sereni Fries has rolled out a robust contract farming system supported by input suppliers like Agrico and Nakuru Farmers World, financial partners including Equity Bank and Tower SACCO, and extension services delivered through County Government Ward Agricultural Officers (WAOs) and ToTs.
- Beyond individual BC models, CRAFT has facilitated a network of strategic partnerships across service domains to strengthen the overall SDM ecosystem. In mechanization, Hello Tractor provides pay-per-use tractor services, Ndume Ltd supplies durable farm equipment, and Zetor enhances access to tractor-based solutions. Post-harvest handling and processing are supported by Termipest for grain storage and Evergreen Fresh and Wedghut for potato processing solutions. Input and advisory services are delivered through entities such as East African Seed Co. Ltd for certified seeds, CropNuts and KEPHIS for soil testing, and Bayer East Africa for agrochemical guidance. On the finance front, Equity Bank, Cooperative Bank, and Platinum Credit provide tailored loan and digital financing solutions, while KALRO, Sprout, and the Kenya Meteorological Department offer essential climate and weather advisories.

Making KAOP a sustainable CSA information system

The CRAFT team, in partnership with the Kenya Agriculture and Livestock Research Organisation (KALRO), developed the Kenya Agricultural Observation Platform (KAOP) into a dynamic, farmer-focused decision support tool that delivers farm-level, actionable agro-weather advisories. Initially a static technical database, the platform has been transformed into a practical resource integrating weather forecasts, seasonal climate projections, crop-specific agronomic recommendations, climate-smart agriculture insights, and market intelligence for potato, sorghum, common beans, and green grams. Working with KALRO's ICT and extension teams, CRAFT digitized CSA training materials and developed user-friendly advisories tailored to specific crops and locations. In collaboration with the Kenya Meteorological Department, KAOP now provides county-level seasonal forecasts that make climate information practical and accessible to farmers and extension agents. The platform was officially launched in September 2024 during the CRAFT Regional Learning Event in Nairobi. Its government ownership, hosting and management by KALRO, and integration into national extension strategies ensure long-term sustainability. KAOP's scalable design allows for the seamless addition of new value chains and geographies without the need for redesign. KAOP has significantly improved the timeliness and accuracy of farming decisions. BCs regularly access data from the platform and relay localized agro-weather advisories to farmers via bulk SMS or through applications integrated into their operations. These advisories guide variety selection, adoption of CSA practices, and scheduling of key activities such as planting, fertilization, spraying, and harvesting. As a result, farmers are making more informed, science-backed decisions that have led to higher yields, improved produce quality, reduced losses, and increased resilience to climate variability.

2.3.6 CRAFT in Tanzania (2024)

Bringing soil testing to the farmers

The value of soil testing in CSA has been stressed by CRAFT over the years, notably in climate risk assessment workshops organized by CRAFT in collaboration with the Ministry of Agriculture. In Tanzania, soil testing service provision (and the required equipment) was in the hands of a few private businesses. Service coverage was insufficient. In 2024, the Ministry of Agriculture procured mobile soil testing kits for all district councils to provide services to farmers so they can cultivate crops knowing which agrochemicals to use by considering the type and quality of the soil in their farms. Agricultural extension workers have been equipped with soil scanners and other tools to enhance service delivery in rural areas. They also ensure test results are fed back to farmers together with appropriate soil fertility management advice. This initiative aims to bring soil testing capabilities directly to the farmers, making it more accessible and convenient.

'Many farmers across the country harvest below standard or nothing at all due to ignorance of soil fertility and texture and sometimes they plant crops which did not match with the soil texture in each area. To bridge this gap, agricultural extension workers are being equipped with soil scanners and other tools to enhance service delivery in rural areas. This initiative aims to bring soil testing capabilities directly to the farmers, making it more accessible and convenient', according to Permanent Secretary in the Ministry of Agriculture, Mr. Gerald Kusaya.

Rift Valley Cooperative Union and WRS

RIVACU undertook a learning visit to Masasi-Mtwara Cooperative Union (MAMCU) to learn about operating a Warehouse Receipt System (WRS) to increase income and revenue for their members and for its own operations. RIVACU invested in digital weighing scales for its 19 member AMCOs. During the 2024 season, RIVACU managed to sell pigeon peas and lentil crops through WRS worth TZS 16 billion in the past season. The plan is to gradually expand the use of WRS for other crops in the future, starting with sesame.

Linkages with public institutions

To support RIVACU in revitalizing their coffee business line, the CRAFT team linked them to the Tanzania Coffee Research Institute (TACRI). By the end of 2024, TACRI supported RIVACU with 3,000 coffee seedlings for their farm. The seedlings were provided free of charge, as part of government's efforts to revive the country's coffee exports. RIVACU has since signed an MoU with TACRI on provision of more seedlings and extension services to the union and its members. Operating coffee farms as a union-operated business is seen as a necessary income strategy to be able to finance member services.

Mpui Cooperative was linked to the Tanzania Agriculture Research Institute TARI-Uyole branch) for accessing potato seeds and extension services, as MPUI wanted to expand their business to include potato which is very favourable in their area of coverage. They were also supported by TARI in establishing CSA demonstration plots and training farmers in six new villages.

East Africa Foods and DFCD

The CRAFT team linked one of its best performing BCs, East African Foods (EAF), to the Origination Facility of the Dutch Fund for Climate Development (DFCD). The team supported EAF in successfully applying for an initial grant of EUR 355,000 to prepare for expansion of its operations across East Africa and introduce new value-added product lines. The grant is meant for market studies, upgrading the Farmer Management System for onboarding and training SHFs, value addition pilot projects for rice and maize, restructuring logistics, and ESG and GESI assessment. Should EAF successfully accomplish the above, the agribusiness could qualify for a substantial investment from the Dutch Development Bank (FMO). EAF is the first CRAFT-supported business champion who will receive support from DFCD.

Tailored weather information

Timely and locally tailored dissemination of weather information has become possible through collaboration between the Tanzania Meteorological Agency (TMA) and CRAFT-supported three cooperatives (Isowelu, RIVACU and Mpui). The three BCs prepare extension advice, in conjunction with government extension workers, regarding recommended field actions linked to the forecast and then pass on the information via bulk SMS to its members. This is a free service provided by the cooperatives to their members. During the 2024 growing season, text messages with weather forecast information and field advice reached 2,206 SHFs. The information assisted these farmers in making sound decisions on what crop varieties/mix to grow, timing of farming activities, and preparing for forecasted extreme weather events. Last season was marked by severe rain delays in many parts of Tanzania including Njombe, Manyara and Rukwa regions where the three cooperatives operate. Farmers who kept well-informed about weather developments timed their spraying actions as advised, ensuring that costs were minimized.

CSA scaling

In 2024, the Tanzania team further expanded the country's CSA training resource pool by establishing another 65 one-acre demo plots and training 142 more ToTs bringing the total to over 1,168 demo plots and 1,238 ToTs since the start of the project. The project has been implemented in 10 regions of Tanzania and 55 districts, reaching more than 2,000 villages. In 2024, the project outreach expanded to 45 additional villages and 10,046 new SHFs.

Adoption of CSA practices and technologies

The 2024 data on CSA adoption rates across the four value chains shows that on average 93% of trained farmers have applied at least two CSA practices. Adoption rates for potato and sorghum crop are at 100% while for sunflower and common bean it is 98% and 99% respectively. The most common CSA practices and technologies used are postharvest handling technologies (tarpaulins, pit bags/hermetic bags, threshing), followed by improved seed varieties, and application of appropriate fertiliser.

Availability of improved seeds

There is a significant increase in the use of improved seed by SHFs in all four CRAFT-supported value chains. This is especially high for common been farmers (89% use improved common bean varieties, 70% for sorghum farmers, and 68% for both potato and sunflower farmers). For common bean and sunflower, this is in part due to the increase in availability of Quality Declared Seed (QDS) produced by farmers and cooperatives. This is helping to close the demand-supply gap for improved (certified) seed. Provision of extension support and certification of the QDS seed was made possible due to good collaboration between the BCs and the Tanzania Agriculture Research Institute (TARI) and the Tanzania Organization for Seed Certification Institute (TOSCI). QDS producers (often ToTs and lead farmers) are provided certificates allowing their seed to be used within the district boundaries. SHFs cultivating these two crops do not face shortages in improved seed availability. For potato, on the other hand, availability of improved seed is unable to meet the high demand by SHFs. In 2024, the potato seed demand was 1200MT. Only 559 MT could be supplied (47% of the demand). Seeds are currently produced and sold by a few private companies such as Silverland, HZPC, and Buela company, and the government-run Tanzania Agricultural Research Institute (TARI). Availability of drought-tolerant sorghum varieties also increased in 2024, due to collaboration between three CRAFT-supported BCs, of which one (Namburi company) as a seed multiplication company has been supplying improved seeds to contract farmers of two sorghum aggregator companies (Kibaigwa Flour Supply and Musoma Foods).

Fluctuating yields but increasing incomes

Potato production has shown annual increases in yield per acre since the baseline date. Other crops experienced a decrease in productivity, due to weather fluctuations such as extreme drought in Dodoma and Singida and floods in Mtwara and Lindi. Common bean production per acre started high at baseline but gradually declined over the years, with a short-lived recovery in 2023 before dropping again in 2024. This was due to the prolonged delay in the onset of rains, which confused farmers in determining the exact planting window.

Average of Quantity Harvested/Acre (KG)							
Value Chain	Baseline	2020	2021	2022	2023	2024	% change from Baseline
Common bean	640	658	489	410	483	448	-30%
Potato	12,128		10,579	18,961	27,795	25,732	112%
Sorghum	597	156	561	359	463	531	-11%
Sunflower	477	502	477	441	452	384	-19%

Sorghum yields dropped in 2020 compared to the baseline due to drought but recovered over the years, nearing baseline levels by 2024. Sunflower yields remained relatively stable from baseline to endline review, with only small changes over time.

Despite lower yields, farmer incomes have risen steadily over the past years, due to better prices, stronger market demand, and improved selling arrangements. This suggests that market factors helped offset the drop in production. Potato value chain records the highest earnings among all crops. This strong performance reflects both increased production and good market prices, making potatoes the most profitable value chain in the review. Sorghum income moved in line with yields but stayed low compared to other crops. Low earnings were due to weak market prices, limited value addition, or high competition from other grains in the market. Sunflower crop showed little change over the years, reflecting both stagnant yields and relatively unchanged market prices. This was due prolonged dry spell in most of the areas in the country. Also, Tanzania imported around 200,000MT of edible oil which contributed to locally produced oil fetching lower prices for the past two seasons.

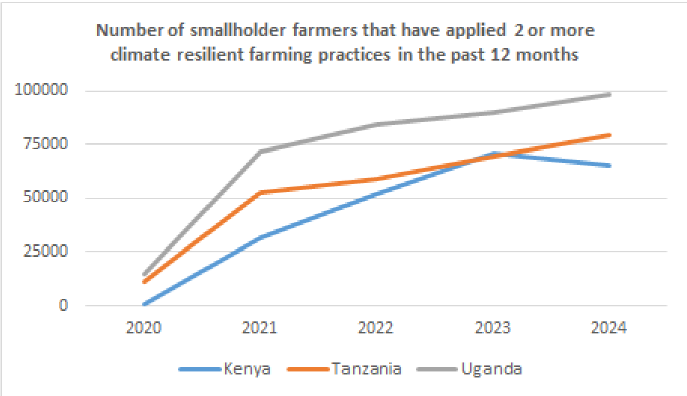
Average Gross Income/Acre (TZS)							
Crop	Baseline	2020	2021	2022	2023	2024	% change from Baseline
Common bean	484,590	875,723	456,418	486,121	660,021	737,175	34%
Potato	4,351,535		4,757,703	11,087,308	11,510,753	12,746,794	66%
Sorghum	118,355	33,429	109,165	83,631	78,372	131,528	10%
Sunflower	248,235	390,598	338,494	326,113	264,600	276,879	10%

It should be noted that baseline data collection coincided with an exceptionally good year for cultivating sorghum, common bean, and sunflower. Yields were higher than normal. But from 2021 through to 2024, the climatic conditions changed significantly in the key growing areas where CRAFT was active. CRAFT work on common bean, sunflower, and sorghum took mostly place in the central region of the country which is very dry compared to other areas. Before CRAFT, farmers were predominantly using local seeds. Had they used local seeds from 2021 to 2024, yields would have been even lower than what was recorded by CRAFT. The adoption of CSA practices such as using improved drought-tolerant seed, has reduced likely harvest losses. We see farmers are managing the effects of climate change better as productivity has been picking up since 2023.

Market prices for common beans, sunflower and sorghum increased significantly since the baseline due to increased demand and scarcity in supply. Farmers earn more despite producing less. Improved access to premium markets, supply contracts, and a wide range of buyers (processors, traders, donor programmes, and exporters) led to higher prices. For example, Kibaigwa sorghum farmers were linked with Tanzania Breweries Limited, and RIVACU farmers with the WFP. An additional factor is that farmers have diversified into other nodes of the value chain, such as basic processing, seed production, and aggregation of produce. This has boosted income despite reduced yields. For example, sunflower farmers under Nondo Investors started to sell unrefined sunflower oil to the company instead of sunflower seeds after they realized that they could double their profit.

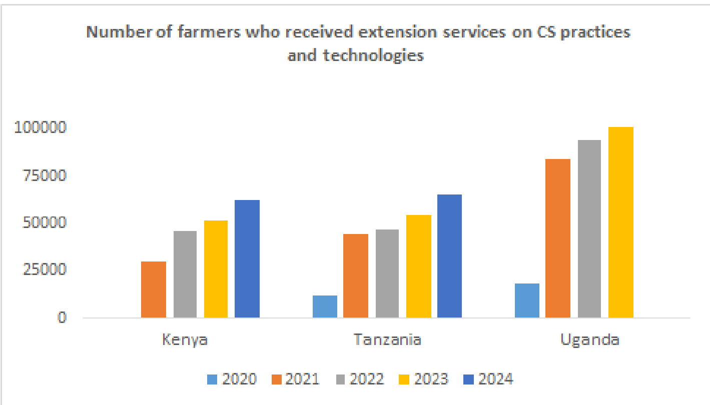
2.4 Observations on outcomes[5]

The CRAFT project's 2024 annual survey highlights the widespread adoption of sustainable, climate-smart farming practices amongst SHFs in the three countries. Of the 331,000 farmers trained in CSA since the start of the project, the vast majority 84% reported to have applied at least two CSA practices and technologies in the past 12 months. Farmers are implementing adaptation strategies related to water management, farmland preparation, crop diversification, use of drought-resistant crop varieties, pest and diseases control, and soil health and conservation. Regional variations in adaptation measures exist and are aligned with localized climate risks, landscape typology, and level of integration in national programmes and service networks.



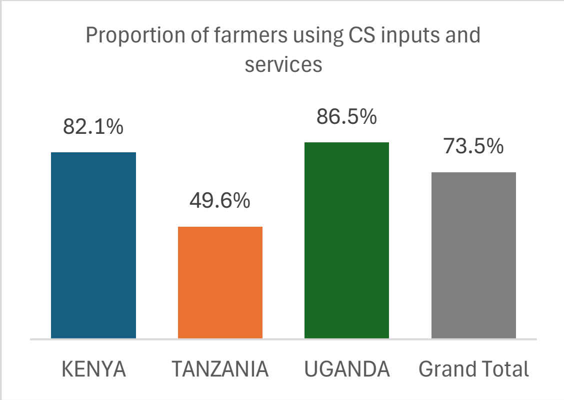
2.4.1 SHF use of CSA products and services

Although many farmers now use improved, climate-smart seed varieties, traditional seed use persists due to cost, availability, and farmer preferences. The most popular climate smart products and services made use of by SHFs is CSA training and extension, access to improved seeds and other agro-inputs, provision of weather information, soil testing, access to improved postharvest handling technologies, loans/input credit, and crop insurance (Kenya and Uganda).



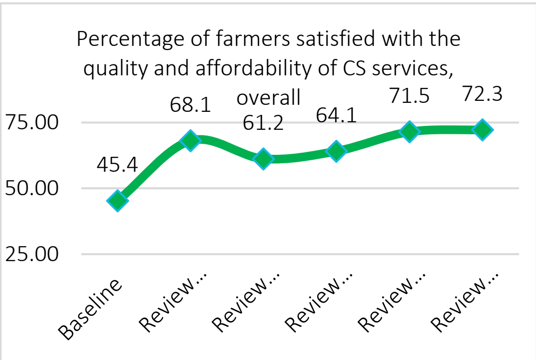
[5] These observations are based on a mix of SHF survey data analysis triangulated with information gleaned from FGDs with farmers. They tend to be generalized, based on averages obtained at country-level for the value chains in questions. It is acknowledged that the data varies between crops, regions, and countries. Significant differences are explicitly mentioned. This section should be seen as highlighting general trends.

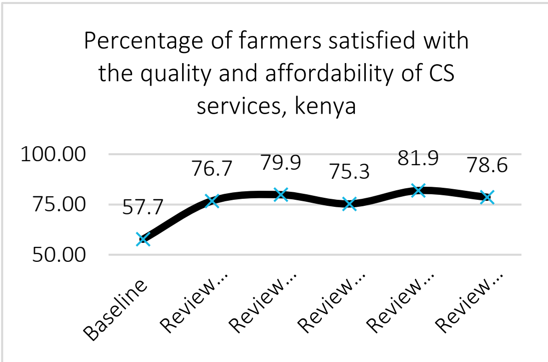
The table below shows the proportion of SHFs using CS inputs and services. Tanzanian farmers have the lowest uptake in the region.



2.4.2 SHF satisfaction with CS services

There is reasonably strong farmer satisfaction overall with the quality and affordability of CSA products and services, confirming its success in improving access to effective solutions. Partnerships with suppliers, cooperatives, and extension services have ensured farmers receive high-quality inputs and agronomic support, enhancing productivity and resilience. However, affordability remains a challenge for some smallholders.



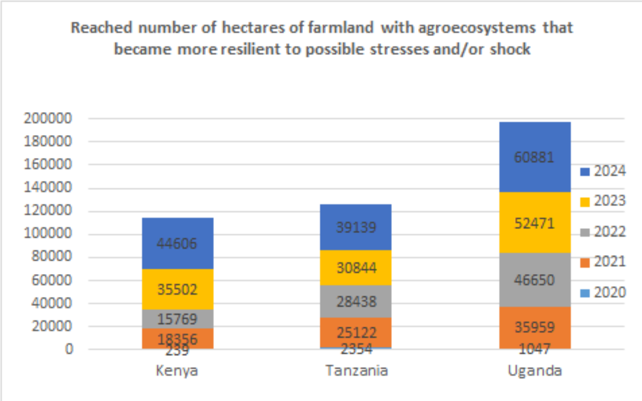


2.4.3 Productivity increases

The project has made successful strides in improving productivity and market integration for farmers although there are significant variations (in regions and in crops) regarding the quantity of produce harvested and sold. Ensuring access to improved seeds, better agronomic practices, and climate-adapted techniques have helped farmers enhance their production capacity. Farmers can produce more and meet market demand while improving food security and income levels of their households. Linking farmers to better market opportunities, providing market information, and facilitating direct trade with buyers, CRAFT has enabled farmers to sell larger quantities of their produce, thus improving their economic stability. These efforts are particularly beneficial for farmers in regions where previous market linkages were weak or unreliable.

2.4.4 Farmland under CSA cultivation

The project has been successful in increasing the land area dedicated to CSA production by farmers. On average, farmers have expanded the number of acres they cultivate thereby increasing their production capacity. This enhanced household food security and ability to participate more actively in regional and national markets. It must be noted that while the average land area under CSA production has increased, the scale of expansion varies across regions and landscapes, influenced by factors such as land access (availability and tenure), financial and human resource availability, and socio-economic conditions. Acreage under CSA cultivation grew from 90,857 hectares in 2022 to 157,996 hectares in 2024. In most cases, this is an increase in the portion of existing farmland converted to CRAFT-supported crops under CSA cultivation.



2.4.5 Crops harvested and sold

In terms of impact on smallholder farmers' food security and market participation, data indicates that a significant portion of the crops harvested is sold. The portion sold varies per crop but tends to be on average 80-90%[6]. The rest of the harvest is either consumed by the household or stored to build a buffer for future food shortages and for donating to family and non-family members in the community. These findings highlight the importance of crop storage, particularly in regions prone to seasonal food scarcity or emergencies. CRAFT's support in improving post-harvest handling techniques, including training on proper storage methods and the provision of storage facilities, has enabled farmers to preserve their produce for longer periods, thus reducing post-harvest losses. Furthermore, the donation of crops to others underscores the role of farmers as key actors in their communities, contributing to local food security and community support systems.

2.4.6 Harvest losses

Reducing harvest losses (incurred during the growing season and postharvest) is critical for improving food security and farmer profitability. The CRAFT project has made notable progress in mitigating such losses through improving pest management and postharvest handling by increasing access to improved storage solutions and better transportation methods to preserve the quality of produce. By focusing on both technical training and physical infrastructure improvements, the project has helped farmers enhance their post-harvest management practices, thereby reducing losses and increasing the efficiency of agricultural value chains. Losses have reduced to less than 20% of harvests for the majority (estimated between 65-75%) of farmers. However, a smaller yet significant proportion (around 10-15%) of farmers continue to face losses of over half of their potential harvest, which can be attributed to factors such as inadequate storage facilities, poor handling practices, and pests and diseases.

2.4.7 Increased incomes for SHFs

The project is successful in increasing the financial returns of smallholder farming Cumulatively, by 2024 over 205,000 SHFs reported an increase in income out of the 331,000 trained in CSA. Farmers are earning a higher income[7] as productivity increases, crop quality improves, and better prices are obtained. Although costs of production under CSA are generally higher than under conventional farming, increases in net profitability is positive. CRAFT has supported farmers in identifying and tapping into higher-value crops and markets. Additionally, the project has worked to reduce market inefficiencies by connecting farmers with more stable,

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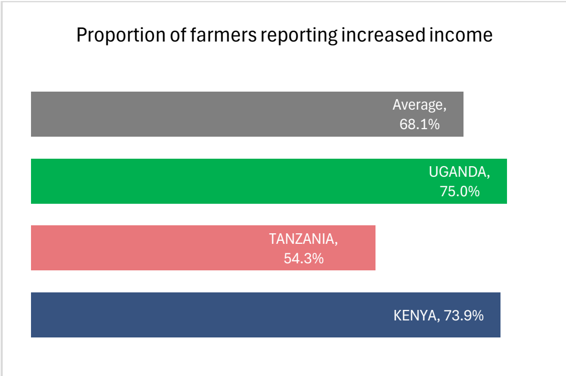
[6] In Tanzania, this is on average 95% for the four crops (potato, sorghum, common bean, and sunflower seed and unrefined oil).

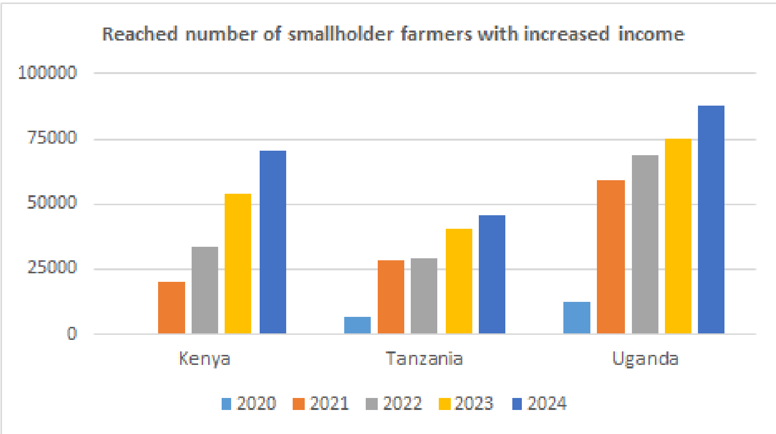
[7] Data capture and analysis on actual income increases realized is currently ongoing and will be presented in subsequent reports.

profitable buyers and ensuring that they receive fair prices for their products. These efforts are particularly crucial for farmers who previously faced challenges with market access or price volatility.

The table below shows the proportion of SHFs trained in CSA practices and technologies that reported increased incomes. The proportion is lowest for Tanzanian farmers with just over half of the SHFs reporting increased incomes, while approximately three-quarters of Ugandan and Kenyan farmers reported increased incomes.



In terms of the absolute number of SHFs with reported increased incomes, Tanzania scores lowest, while Uganda out-scores larger neighbour Kenya.



2.4.8 Resilience through diversification

Approximately half of the farmers were already managing two or more agricultural sources of income before the project started, although relying on a narrow range of low-income primary production activities that were vulnerable to risks such as climate shocks or market fluctuations. By the end of 2024, this rose to about 95%. Few (<5%) farmers reported not to have diversified their income sources and assets. Since the project started, several livelihood diversification elements were emphasized with the aim of enhancing climate resilience of SHFs. These include introduction of new crops, new farming practices, and new income generating activities.

- **New crops**

A substantial portion of farmers (about one-third) reported introducing one or two new crops. These farmers reported have prioritizing crops with high market demand or those suited to their agro-climatic conditions. A significant (two-thirds) group introduced three or more crops, demonstrating a stronger commitment to diversification. A minority (<5%) reported no new crop introductions, citing reasons such as limited resources such as land, seeds, or capital, unfamiliarity with the new crops, lack of technical knowledge, cultural attachment, risk aversion and lack of confidence in the new crops' performance. Those farmers that actively diversified their farms often added high-value or climate-resilient crops, incorporated improved varieties of sunflower, cassava, green gram, coffee, bananas, millet, potato, sesame, soybean, sorghum among others.

- **New farming methods**

High adoption of new practices was realised from the finding since a large proportion (>95%) of farmers adopted one or more new practices, such as crop rotation, intercropping, or integrating crops with livestock farming. This indicates the project's effectiveness in promoting sustainable and diversified farming methods, which improved resilience of smallholder farmers to climate change and enhanced productivity. Some of the specific practices which were most widely adopted are crop rotation which helps improve soil fertility and manage pests or diseases, intercropping which maximizes land use and reduces risks of total crop failure, and crop-livestock integration which provides complementary benefits, such as manure for crops and crop residues for livestock feed. All these contributed to smallholder farmers resilience to shocks. A smaller percentage (<5%) of farmers may not have adopted any new practices. The reasons reported by these farmers were limited access to resources or training, challenges in implementing the practices due to land size, information, labour, and market dynamics.

- **New income-generating activities**

Farmers started new income-generating activities because of the CRAFT project interventions. High adoption (around 95%) of new income-generating activities was realised as significant portion of farmers reported starting new ventures such as processing (adding value to farm produce e.g., milling grains/producing processed food items, marketing (selling farm products directly to markets or engaging in group marketing initiatives to access better prices). Non-farm activities include crafts, retail, or service provision to reduce reliance on farming income alone. The benefits include Improved household income and financial stability, enhanced resilience to climate shocks and market fluctuations, and strengthened local economies through value addition and enterprise development. A smaller percentage (around 5%) same of farmers did not engage in new income-generating activities. They attributed this to limited resources or infrastructure to start these activities (e.g., access to equipment for processing), lack of market access or demand for processed products among others.

2.4.9 Replication and scaling of CSA

A significant proportion of farmers (>95%) reported applying CSA practices and technologies to their newly adopted crops or other crops/activities. The most common CSA practices applied to other crops are the use of improved seeds, timely land preparation, planting and weeding, pests and disease management, improved postharvest handling technologies, soil management, water management, and integrated pest management (IPM) among others. A smaller percentage (<5%) of farmers stated that they did not apply CSA knowledge to their new ventures due to lack of confidence and perceived challenges in scaling CSA practices from existing crops to new ones (information, technical skills, and resource limitations).

Although not systematically quantified, replication and scaling of CRAFT interventions to non-trained farmers has been widely observed. Farmers or farmer groups who were not directly trained by the CRAFT project are implementing CSA practices and technologies. Knowledge and practices are being shared through farmer-to-farmer extension, community-based learning, and informal networks.

A significant number of farmers reported using CSA practices for multiple years (about half of the SHFs practiced for more than three years and just under a third between 1-3 years). This result indicate that the application of CSA practices is becoming entrenched/established in the farmers' routines. These farmers have seen benefits over time. Few (around 5%) farmers used CSA practices for just a year.

2.4.10 Relevance and appropriateness of CSA

- **Financing for CSA**

Almost all farmers reported facing challenges in accessing financing for CSA investments (e.g. irrigation systems, processing equipment, and farm machinery). These challenges are attributed to lack of access to capital and input credit as many farmers do not have access to formal financial institutions, struggle with high interest rates, have limited collateral, and their limited financial literacy makes it difficult to navigate financing options. There is still a shortage of financing products and services tailored specifically for CSA investments open to SHFs, or the available options may not cover the full cost of investments. A very small proportion of farmers (1%) reported to have no issues with accessing financing for CSA practices and technologies.

- **Environmental and landscape conditions**

A small majority (55%) of farmers reported that the CSA practices and technologies introduced by the project are suitable for their farm's landscape and environment. Many of the CSA practices introduced by the project are flexible and can be adapted to a wide range of environmental and landscape conditions. Soil conservation techniques like mulching, intercropping, or agroforestry are applicable across different soil types and terrains. Crop rotation and using drought-tolerant varieties are reported to be effective in a variety of environments, making them suitable for farmers regardless of their specific land conditions. 45% of farmers indicated that their environmental or landscape conditions make some CSA practices and technologies unsuitable. These are farmers mainly from regions dealing with poor or degraded soils (e.g., acid soils, sandy soils) where certain CSA practices, like specific types of soil amendments or organic farming techniques, may not be effective without significant soil rehabilitation. Water-intensive CSA practices like irrigation-based systems or crops requiring more water are unsuitable for adoption by farmers facing challenges related to water scarcity. Farmers with hilly or difficult terrain struggle to adopt CSA practices that require flat or even land for mechanized land preparation, planting and harvesting. Soil conservation techniques like terracing or contour farming are not feasible in areas with extreme slopes.

- **Alignment with SHF needs and available resources**

Almost all of farmers reported that the CSA practices introduced by the project align well with their farming needs and available resources. This suggests that the practices were relevant to the farmers' goals such as improving crop yields, managing soil health, or adapting to climate change, income and food security enhancement. Alignment with resources mean that the practices are cost-effective and feasible within the farmers' budget, access to labour, and available infrastructure. For example, those practices that require minimal investment were integrated within existing farming systems (e.g., intercropping or rainwater harvesting), and seen as particularly valuable. The few farmers (1%) that expressed misalignment of CSA practices with their needs and available resources mentioned high initial costs and resource demands. Some CSA technologies or practices require relatively high upfront investments, such as the purchase of mechanization tools, solar dryers, or drought-resistant seeds. These are not affordable for all farmers. Practices like crop rotation, intercropping, and agroforestry require more labour, which can be challenging for those farmers with limited manpower.

2.4.11 Awareness and understanding of CSA

About one-fifth of farmers reported that they were already aware of CSA practices and technologies before the CRAFT project introduced them. About four-fifths became aware through the CRAFT project. Reasons for this low level of awareness include limited access to information and exposure. Farmers lacked access to educational resources and programs. Given some of the geographic locations of farming areas, farmers may have been isolated from broader agricultural development networks and may not have had opportunities to learn about emerging best practices like CSA. By the end of 2024, almost all of farmers indicated that they fully understand how CSA practices and technologies work and what potential benefits they bring. 1% of farmers indicate that they have only a partial understanding of how CSA practices and technologies work and their potential benefits.

2.4.12 Risk perception and cost-benefits of CSA

There is still a significant portion (80-90%) of farmers in 2024 who perceive CSA as high-risk endeavour, indicating they are worried about the feasibility or profitability of CSA, and fear suffering financial loss if CSA practices do not yield the expected results. However, all farmers reported that they believe the benefits of CSA outweigh its costs.

2.4.13 Climate risks, hazards and CSA

Farmers reported to have experienced reduced harmful impact of climate risks and extreme weather events and attribute this to application of certain CSA practices. Three broad groupings can be discerned in terms of perceived importance in contributing to SHF resilience (income and improved livelihoods):

- **High importance**: use of weather information in farm management for timely decision-making, line planting and proper spacing, timely weeding, use of drought resistant and heat-tolerant seed, timely land preparation, timely planting, diversification of agro-enterprises, integrated pest and disease management, and improved postharvest handling.
- **Medium importance**: crop rotation with leguminous cover, safe use and application of fertilizers and herbicides, mixed cropping and intercropping, mulching, rainwater harvesting, and soil testing.
- **Low importance**: productive use of clean energy for value addition, efficient irrigation methods, agroforestry, terracing, contour, bands, soil hipping

2.4.15 SHF access to finance

About one-fifth of farmers indicate that they manage to access financing or credit to invest in CSA practices and technologies through donor grants, local banks, microfinance institutions, and government programs. Over 80% of farmers reported facing barriers when trying to access financing or credit for CSA investments. Common barriers include high Interest rates, lack of collateral, delay, unfavourable repayment terms, and complex loan requirements.

2.4.16 Non-financial barriers to CSA

- **Institutional barriers**

Around 10% of farmers reported that structural or institutional challenges are not a significant barrier to adopting CSA practices. These farmers claim they benefit from favourable policies, programs, and government support that facilitates the adoption of CSA practices through subsidies and funding opportunities and improving infrastructure such as roads, storage facilities, and reliable transportation that make it easier for farmers to access inputs and markets. The majority (90%) of farmers, however, stated that government support for CSA adoption is inadequate. They face difficulties accessing inputs and markets for new or less familiar crops or face challenges in reaching more lucrative markets due to infrastructure gaps. Poor infrastructure, such as unreliable roads, insufficient storage facilities, or inadequate irrigation systems are limiting the effectiveness of CSA practices. Other structural or institutional challenges reported by farmers include inadequate credit and financing challenges, limited extension support and training services, and market/price uncertainty.

- **Labour shortages**

About a third of farmers indicate that labour shortages or time constraints do not affect their ability to implement CSA practices. This is because the availability of adequate labour does exist where these farmers sufficient labour availability on their farms (e.g., family members, hired labourers) to implement CSA practices without significant difficulty, also the adaptability of CSA Practices in instances where the CSA practices introduced may not require substantial additional labour or are relatively easy to implement within existing farming schedules. For example, practices like crop rotation or using drought-resistant crops may not demand much extra labour, making them manageable even for farmers with limited time or labour resources, and lastly the efficiency of practices where the CSA technologies and practices could be designed to reduce labour or improve efficiency, helping farmers complete tasks with fewer labour hours. Mofe than two-thirds of farmers reported that labour shortages or time constraints do impact their ability to implement CSA practices. This is because some CSA practices require additional labour that farmers may not have. For example, techniques such as land preparation for new crop varieties, planting cover crops, mulching, or managing soil conservation practices may require extra time and effort, which could be difficult for farmers already facing labour shortages, and the farmers furthermore faced fluctuations in labour availability depending on the season, which created time constraints, especially during peak planting and harvesting periods.

3. Intervention area 2: Actionable climate analysis products

3.1 Objectives

The CRAFT project has maintained from the start that effective climate resilience interventions need to be grounded in climate science. In the Extension phase, the climate science focus has shifted from longer-term climate change to short-term climate change. The objective for the Extension is to produce and disseminate a set of practical climate analysis products that can be used by the various stakeholder groups involved to inform planning of adaptation measures, investment decisions, service delivery targeting, and climate smart infrastructure development.

3.2 Climate analysis products developed in 2024

Throughout 2024, the CRAFT project, through strong leadership from Wageningen Environmental Research (WENR), contributed to supporting decision-making with tailored climate and crop information. The work focused on four main pillars: adjusting climate risk assessments, generating decadal forecasts, producing short-term suitability maps, and assessing climate change impacts on cropping systems—including adaptation scenarios. The results and practical tools, such as story maps and infographics, were shared with stakeholders through key learning events.

3.2.1 Climate risk assessments

During the first half of 2024, value chain-specific Climate Risk Assessment (CRA) sheets developed earlier during the project, were revised and aligned with their respective target audiences—business champions, extension officers, and policymakers. WENR adjusted the language, layout, and visuals to improve usability. The CRA fact sheets can be found here. They were disseminated to partners and stakeholders during the CRAFT Learning Event held in Nairobi from 24–26 September 2024.

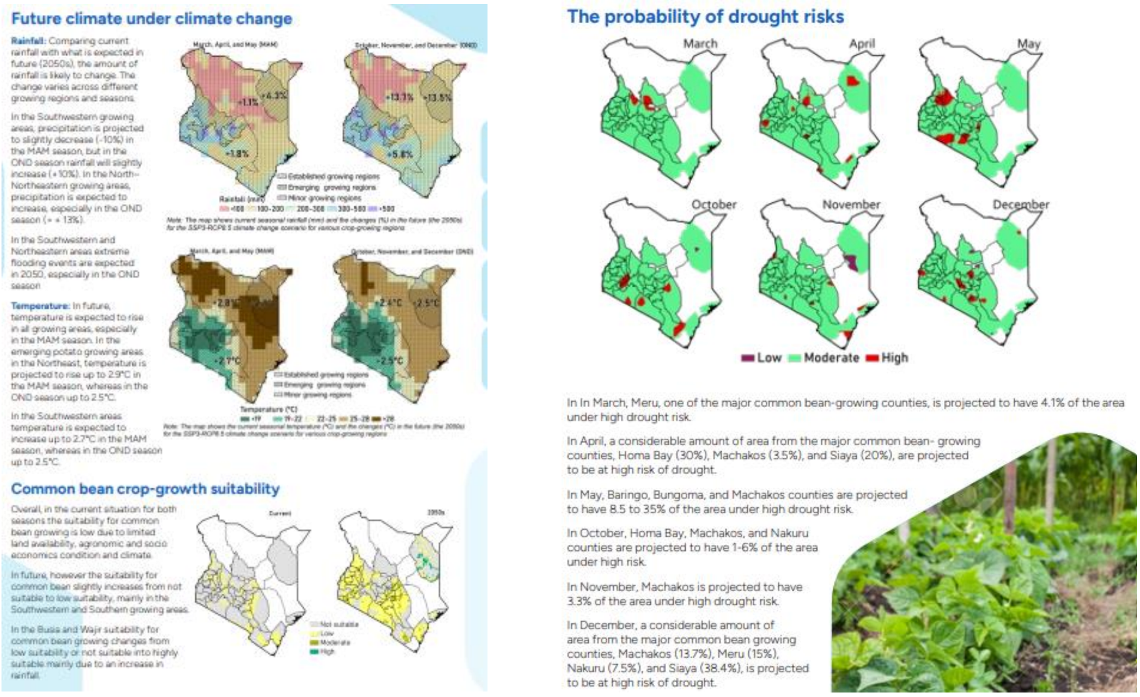


Figure 4: Example of a CRA sheet for common beans, Kenya

3.2.2 Decadal climate predictions[8]

Responding to stakeholder requests for more immediate planning tools, WENR developed decadal climate forecasts (2024–2033) based on the EC-EARTH3 climate model. The model was selected for its recent initialization (November 2023), extended 10-year projection period, and 50-member ensemble capacity. This allowed WENR to assess variability and uncertainty in climate signals over time. The analysis focused on key indicators such as monthly temperature averages, total precipitation, seasonal rainfall (MAM and SOND), and extremes like consecutive dry or wet days. For example, the figure below illustrates the ensemble mean temperature anomaly for East Africa, showing a consistent warming trend across all months—though slightly subdued from November to February. Figure 5 highlights the uncertainty in the forecast for January, with possible scenarios ranging from slight cooling to over 1°C warming depending on the ensemble member. These

[8] Decadal climate predictions have been obtained from the Decadal Climate Change Project (DCCP). Daily data of mean, minimum, and maximum temperature and precipitation were obtained from the climate model EC-EARTH3 for the most recent forecast run available, with initial conditions starting from November 2023. The forecast run exists of 50 ensemble members running out to October 2034. To calculate a baseline climatology and to analyse historical forecast performance, hindcast data were downloaded for the period 1991-2020 from the hindcast runs with starting dates in November 1990, November 2000, and November 2010, each run with 10 ensemble members. Apart from temperature and precipitation, daily data were also downloaded for humidity, solar radiation, and wind speed to be used as input into WOFOST model runs. The climate data are global in scope and will be extracted for the area of interest. Forecasts of temperature and precipitation in different periods will be expressed as anomalies from the baseline model climatology in the 1991-2020 period.

insights were shared at CRAFT learning events and helped guide interpretation of yield and suitability projections.

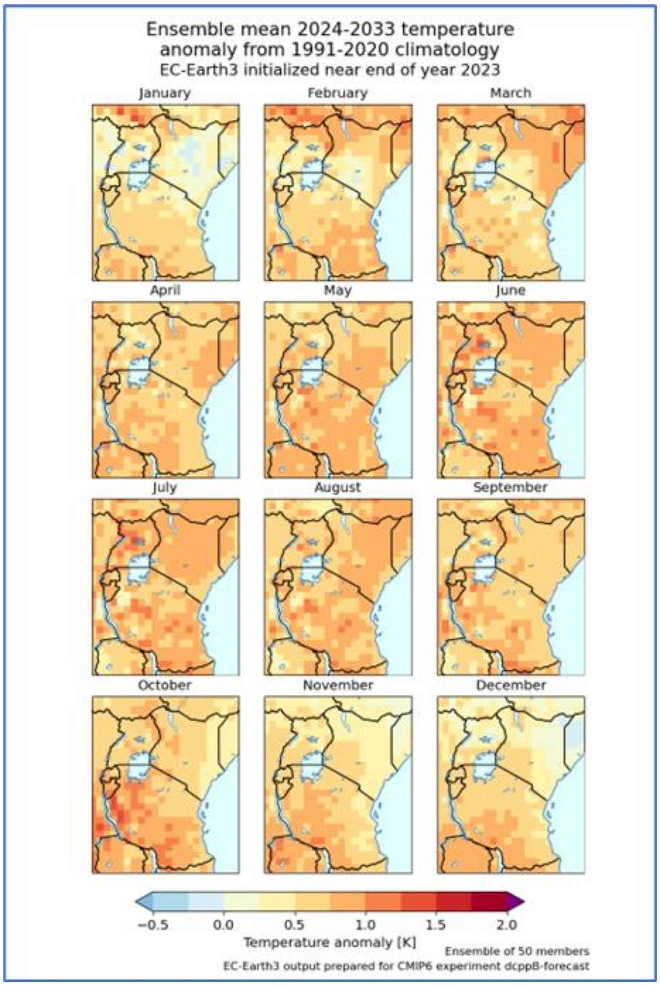


Figure 5: Ensemble mean 10-year average temperature anomaly over East Africa (2024–2033).

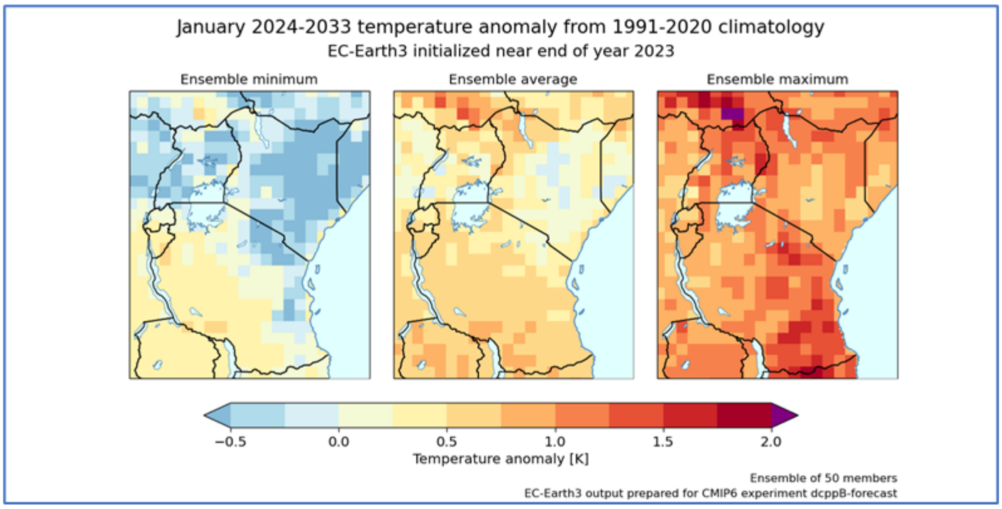


Figure 6: Lowest, ensemble-mean and highest temperature anomaly in January across all 50 members of the November 2023 EC-EARTH3 decadal forecast.

3.2.3 Crop suitability maps for short-term investment planning

One of WENR's major contributions in 2024 was the production of short-term crop suitability maps, focusing on the 2030 horizon. These tools provide localized, practical insights for financial institutions and agribusinesses aiming to assess risk and identify investment hotspots. Potato suitability maps were finalized for Kenya, Uganda, and Tanzania. A short-term suitability map for common beans was developed for Tanzania to support the CRA Light Workshop in Arusha (December 2024). These digital story maps[9] integrate climate, soil, and agronomic data to provide dynamic visualizations of how different crops might perform under near-future climate conditions.

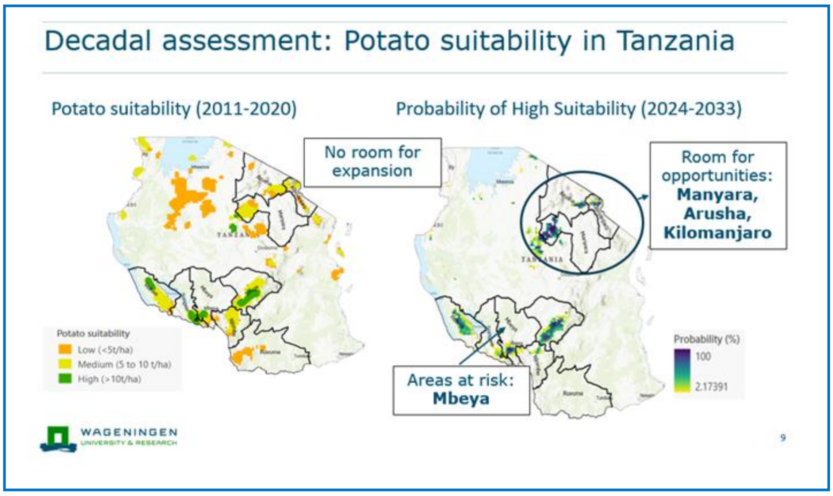


Figure 7: Decadal assessment: potato suitability in Tanzania

3.2.4 Climate impact assessments on crop yields

In 2024, WENR conducted decadal climate impact assessments on potato-bean cropping systems in Nakuru (Kenya), Njombe (Tanzania), and Kigezi (Uganda). These simulations used the WOFOST model and climate inputs from EC-EARTH3 to estimate crop yield under historical (2011–2020) and projected (2024–2033) conditions. Initial results showed that potato yields in Nakuru could drop by 12% without adaptation. However, shifting planting dates or introducing irrigation could mitigate or even reverse this decline, with potential yield increases up to 20%. Updates were made to previous assessments following corrections to the crop model. Additionally, new projections for common beans were completed for Kenya and Tanzania. For Uganda, climbing beans will be assessed in 2025 using soybeans as a proxy.

[9] Uganda Soybeans Story Map, Kenya Potatoes Story Map, Kenya Green Grams Story Map and Tanzania Common Beans Story Map.)

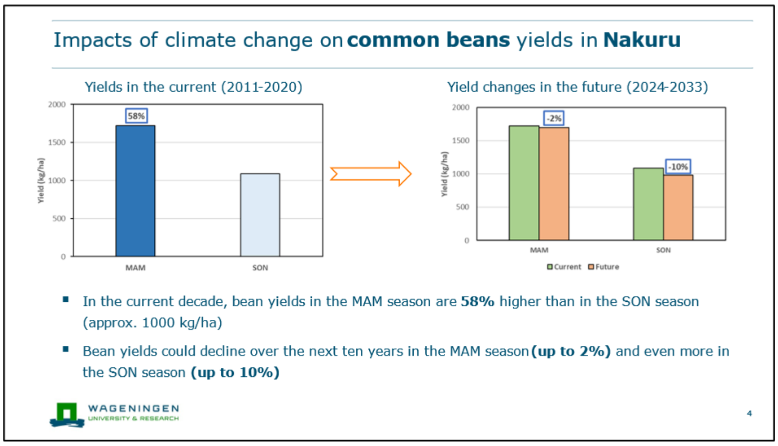


Figure 8: Impact of climate change on common bean yields in Nakuru, Kenya – MAM and SOND seasons.

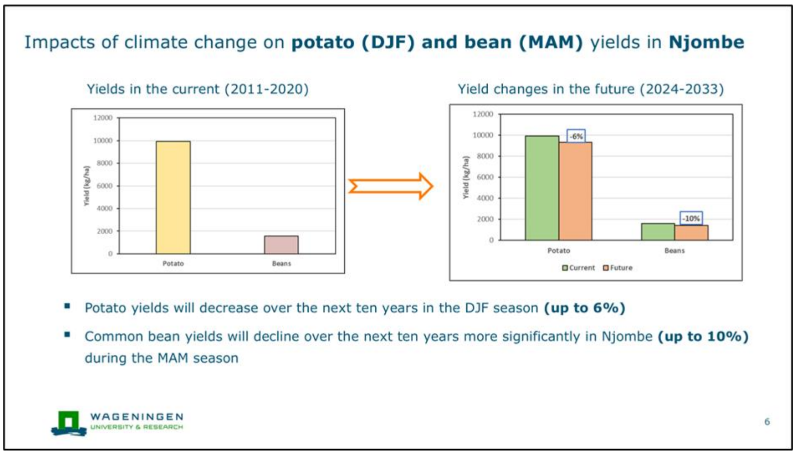


Figure 9: Impact of climate change on potato and beans in Njombe, Tanzania (DJF and MAM).

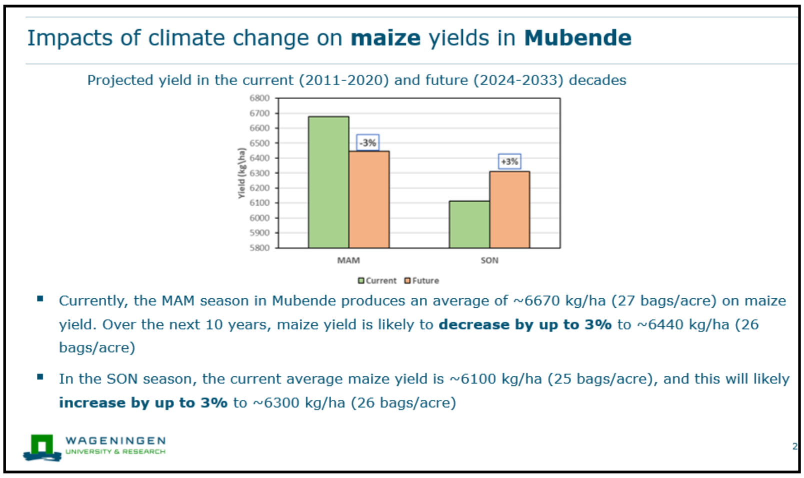


Figure 10: Impact of climate change on maize in Mubende, Uganda (MAM and SON).

3.2.5 Adaptation strategies

There is strong demand for data on the effectiveness of climate adaptation strategies. It is, however, too early to make conclusions on the uptake and effectiveness of the short-term climate forecasts and recommended adaptation actions made available through the CRAFT climate analysis products.

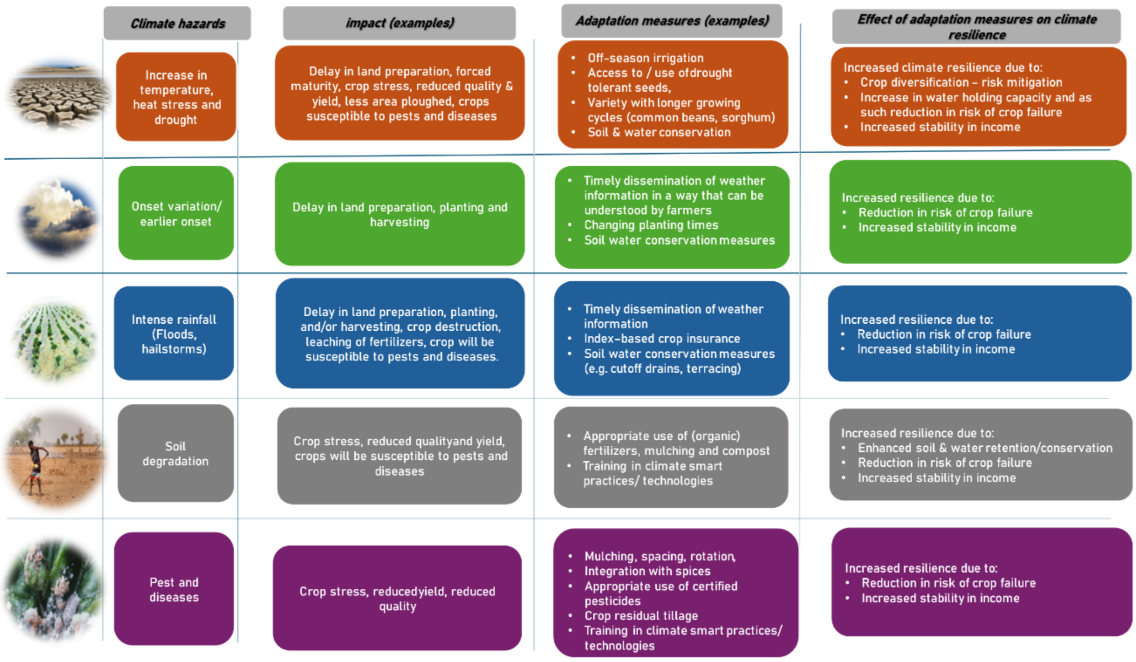


Figure 11: Example of adaptation strategies recommended for sorghum-common bean croping system in

3.2.6 Testing adaptation scenarios

To explore climate-smart solutions, WENR simulated the effect of changing sowing and planting dates on yield outcomes in all three countries:

- In Nakuru, planting beans in mid-April increased yields by up to 3%.
- In Njombe, delayed sowing improved yields by up to 28%, particularly under warmer conditions.
- Similar assessments were conducted for potatoes in Kenya and will continue for climbing beans in Uganda in 2025.

These findings underline the critical role of timely adaptation advice for farmers and extension services.

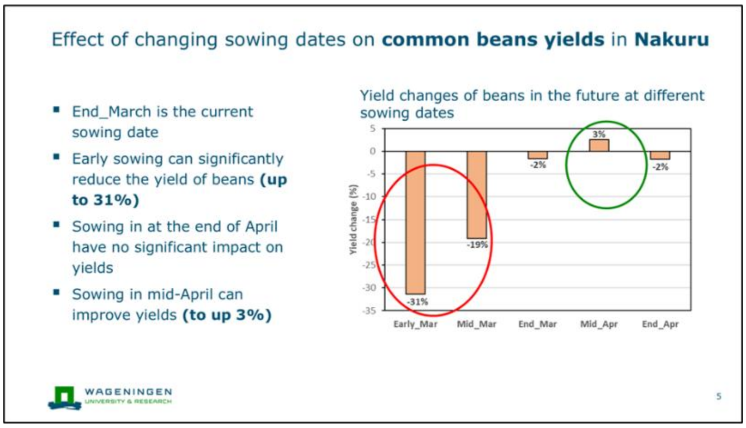


Figure 12: Effect of planting time on bean yield in Nakuru, Kenya

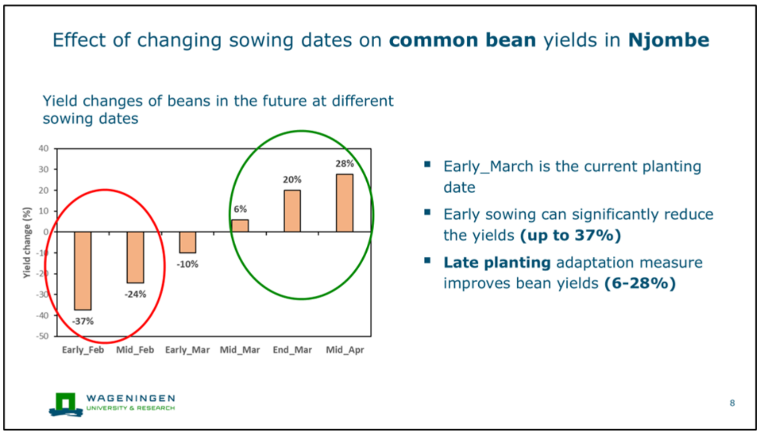


Figure 13: Yield improvement from late planting in Njombe, Tanzania

3.2.7 CRAFT roll-out of climate analysis products

Dissemination and roll-out of CRAFT climate analysis products was done through presentations facilitated by WENR in stakeholder learning events such as CRA workshops, national agricultural shows and exhibitions, agribusiness forums, participatory scenario planning forums, agro-weather platforms, and through refresher trainings of extension workers and ToTs/lead farmers.

4. Intervention area 3: Institutional support for CSA roll-out and scaling

4.1 Objectives

The CRAFT team will continue to engage with public and private sector actors in bilateral and multi-stakeholder forums and platforms to strengthen sustainable linkages aimed at CSA promotion and support provision. The CRAFT project wants to achieve a responsible handover or transitioning to the respective private and public sector for scaling and sustainability. Essential to scaling and sustainability is the institutionalisation of CSA processes through the support and engagement with multi-stakeholder platforms (MSPs). In the Extension phase, the CRAFT team intends to focus this support to participation and information sharing in a few interventions; support to implementation of the Kenya Climate Smart Agriculture Strategy and strategic planning in 12 counties, support to the Uganda Ministry of Agriculture Animal Industry and Fisheries (MAAIF) CSA projects and MSP, and in Tanzania feed into multistakeholder consultations in the potato and sunflower value chains. Lastly, in all three countries, the CRAFT teams are to roll-out the uptake of CSA training manuals.

4.2 Activities and results in 2024

4.2.1 Kenya’s Climate Smart Agriculture Strategy implementation

In December 2024, CRAFT co-facilitated a four-day national workshop on the Kenya Climate-Smart Agriculture Implementation Plan (KCSAIP) and the Financing Locally Led Climate Action (FLLoCA) initiative. Held in collaboration with MOALD-CCU, CIAT, and the CSA MSP, the workshop brought together participants from the Department of Agriculture, KMD, farmer groups, research institutions, and private sector stakeholders. The workshop focused on helping counties develop bankable climate investment concepts aligned with both national goals and local needs. Whether these concepts will be turned into tangible initiatives still remains to be seen.

Eleven County CSA MSPs have been formed, with seven—Meru, Tharaka Nithi, Nakuru, Narok, Bomet, Busia, and Kakamega—currently active and supported through a mix of CRAFT and partner investments. Through these platforms, CRAFT over the years has supported Nakuru County to domesticate the national Kenya Climate-Smart Agriculture Strategy (KCSAS) and the Kenya Climate-Smart Agriculture Investment Framework (KCSAIF) to reflect the county's context. Additionally, CRAFT also supported the development of the Common Bean Strategy in Bomet County. Both documents are currently in draft form, the draft versions were completed in 2024.

The Kenya team has also helped in increasing climate finance readiness by sensitizing counties on the Financing Locally Led Climate Action (FLLoCA) programme, directly supporting Meru and enabling other partners to extend similar support to Tharaka Nithi, Nakuru, and Narok. It is foreseen that stakeholders will now be able to develop proposals around climate investments to be considered under the FLLoCA program.

Additional partner contributions under the CSA MSP umbrella have included the formulation of agroecology policies for Kakamega, Busia, and Nakuru, and capacity building on the Ministry of Agriculture's M&E reporting tool to track CSA actions. These coordinated efforts have led to observable changes, such as the integration of CSA projects within County MSPs, alignment of CSA with government programmes like NAVCDP, and inclusion of CSA interventions in County Integrated Development Plans (CIDPs) to unlock climate finance. The National CSA MSP is now working to institutionalize County MSPs through unified protocols to ensure continuity and resilience regardless of political transitions.

4.2.2 Uganda MAAIF

In 2024, Uganda took bold steps to strengthen its policy and institutional support for climate adaptation by increasing climate financing by $24.5 million—a 28% budget rise—and embedding climate resilience into its national development strategy. The budget has supported initiatives such as benchmarking events, promoting research, setting up and repair of weather stations, supporting micro irrigation schemes, and hosting learning events. These reforms, such as enacting the Uganda Climate Change Act 2021, created a more enabling environment for initiatives like the CRAFT project to scale CSA.

A major achievement was the establishment of the Uganda CSA Multi-Stakeholder Platform, which now functions as a national coordination mechanism to align efforts, reduce duplication, and improve monitoring and learning across the agriculture sector. Backed by the World Bank–funded Uganda CSA Transformation Project, the MSP enables government, private sector, and civil society actors to engage in evidence-based planning, shared learning, and harmonized data use to drive CSA implementation. This reduces duplications and enhances resource leveraging for CSA initiatives (e.g. USD 350 million from the World Bank). MAAIF can efficiently execute their coordination role through the platform.

The platform is already showing results through the coopting of expertise from the different players to complement the Uganda Climate Smart Agriculture transformation project. This would have been difficult under fragmented implementation. It is facilitating structured collaboration among stakeholders and helping integrate CSA into Uganda's broader agricultural transformation agenda. Government leaders such as Dr. Henry Nakalet Opolot from the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) have commended the MSP as a critical tool for reducing fragmentation and promoting synergy across institutions and sectors. Through this inclusive, coordinated approach, Uganda is laying a strong foundation for systemic, sustainable adoption of CSA practices that respond to both local needs and national climate priorities. Development partners are pooling resources to support the platform, co-opting expertise from different organisations, and jointly advocating for adequate resource allocation towards CSA in Uganda.

4.2.3 Tanzania stakeholder dialogues for resilient potato, sunflower, and common bean value chains

Continuing with the series of stakeholder dialogues organized in 2023 for potato and sunflower value chain actors, a stakeholder dialogue was organized in 2024 for common been value chain actors. The purpose of these dialogues has been to jointly assess the climate risks (based on climate risk assessment reports prepared by WENR) likely to affect the value chains and arrive at recommended actions. The decision by the Ministry of Agriculture to invest in establishing a free country-wide soil testing service for SHFs emanated from these dialogues. In the 2024/2025 budget, the government of Tanzania scrapped Value Added Tax (VAT) on locally produced edible oils (including double-refined oils from locally grown seeds) to bolster local oil production and moderate consumer prices.

The Potato Council of Tanzania, established in 2023 and officially registered in June 2024, has been focusing on enhancing availability of quality seed, promoting soil health, and expanding market access, critical pillars for improving productivity and profitability across the potato value chain. The Council has just started engaging with the Ministry of Agriculture on priority issues as captured in their implementation plan. CRAFT developed a potato value chain policy brief with recommendations to the Ministry. It is too early to report on concrete results.

4.2.4 CSA training manuals

The Uganda team used events such as the Harvest Money Expo, agricultural shows, learning events, farmer field days, business-to-business exchange visits, and multi-stakeholder meetings to further disseminate the climate smart agriculture manuals. Government extension workers and field officers are using the manuals as reference guide for the Uganda Agriculture Transformation Project.

In Kenya, BCs and their affiliated ToTs/lead farmers have actively used the manuals to extend training to smallholder farmers. To broaden accessibility, the manuals were digitized via the SNV/KALRO agro-advisory digital platform, allowing a wider range of stakeholders including those beyond the immediate reach of CRAFT to access and utilize the content. This digitization has enhanced integration into ongoing extension efforts and knowledge platforms within and beyond project areas.

In Tanzania, the CRAFT team has been unsuccessful since 2020 in getting the Ministry of Agriculture to endorse the CSA manuals and agree to do an officially launch. Towards the end of 2024, the team made a last-ditch attempt to revisit the issue, now with new people in the Ministry. It looks like the manuals may finally be launched during the first half of 2025.

5. Summary and conclusions

5.1 Summarized conclusions from the 2024 annual review

The CRAFT project is successfully driving SHF application of CSA, with over 90% of farmers implementing practices and technologies that improve the management of their farms, increase productivity, reduce losses, diversifying their sources of livelihood, thereby strengthen their ability to adapt to climate change-related stresses and shocks.

Increasing numbers of farmers can sell larger quantities of produce with better quality fetching higher prices at more secure markets, thereby increasing income stability and security. However, postharvest losses, although reduced, continue to challenge farmers due to inadequate storage and poor handling practices, highlighting the need for more investment in infrastructure and technology, and in training.

Financial barriers persist, limiting adoption of certain CSA practices and technologies despite growing awareness. Many farmers struggle to afford necessary investments due to limited access to affordable and appropriate financial services. Farmer awareness of climate risks is high, but real-time access to weather and climate data remains inconsistent across regions. Many farmers recognize the benefits of agricultural insurance, but adoption remains low due to cost concerns and trust issues.

Peer-to-peer learning has been highly effective, with farmers reporting they have adopted CSA practices through knowledge-sharing within their communities. Farmers that were not directly supported by the project adopted the CSA practices in this manner. The role of ToTs/lead farmers providing farmer field training around CSA demo plots has been key. The replication and scaling of CRAFT interventions to non-trained farmers is a positive indication of the sustainability and scalability of the project's interventions.

5.2 The business case for CSA

5.2.1 Comparing conventional farming with CSA

The figure below contains four key preliminary summary statements[10] regarding the 'business case' for climate smart agriculture, considering what are likely the most important drivers from the point of view of farmers and agribusinesses engaging with CSA.

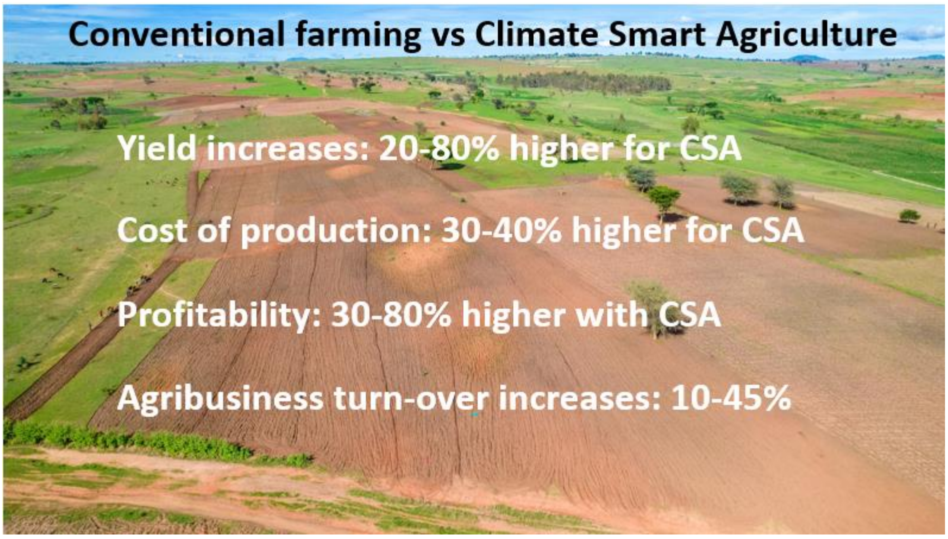


Figure 14: Comparing conventional farming with CSA

[10] The end of project report will elaborate on the four key summary statements and substantiate them with more details and facts.

5.2.2 Cost-benefit analyses

Gross Margin Analyses (GMA)[11] were carried out by the CRAFT teams, comparing cultivation of potato, sunflower, common bean, and soybean on demonstrations plots with control plots managed under conventional farming by farmers. Gross margin analyses confirmed the financial viability of CSA practices and technologies by comparing production costs and revenues between CSA-adopting and conventional farming systems. The analysis shows that CSA improves yields and enhances profitability, validating its promotion as an agribusiness farming approach. Key driving factor of profitability of CSA practices was increased yields and favourable prices that enabled farmers to make positive margins. Integration of climate-resilient inputs, post-harvest innovations, efficient mechanization, and improved soil and water management together contributed to increased margins among smallholder farmers across the intervention areas and project supported crops. Farming system focus was validated by the variance in costs of production between the promoted crops and crops not included in the CRAFT project (maize and ground nuts). Farmer-managed plots exhibited variability in results, often linked to resource constraints and differing levels of experience of the farmer. The analysis reveals that CSA practices have the potential to enhance farm profitability, particularly when properly implemented. Demonstration plots acted as effective learning platforms, showing what can be achieved under ideal conditions. Real-world adoption at the farmer level faces challenges including access to quality inputs, knowledge gaps, and initial investment barriers. Below are a few summaries of GMAs carried out by the CRAFT teams[12]:

- **Profitability for soybean cultivation in Mubende District, Uganda**

  Profitability analysis for soybean production conducted on two acres in Mubende District showed that application of CSA technologies and practices (including Improved drought tolerant seeds (Maksoy 3N variety), safe use of fertilizer/inoculants such as rhizobia, soil testing, pest and disease management, proper post-harvest handling (drying, grading, sorting, and cleaning), Good Agronomic Practices (such as timeliness, linear planting, crop rotation) resulted in increased yields, revenue, and profit. Cost of production for two acres of soybean analysed was Euro 491, the yield was 1,400kgs, unit sales price was Euro 0.52, resulting in revenue of Euro 732. The gross profit was Euro 241, translating into a gross profit margin of 33%. Compared to the traditional soybean production from the same land size which cost Euro 267, yields of 688kgs, selling price of Euro 0.52, resulting in revenue of Euro 357, and a gross profit of Euro 90, translating into a gross profit margin of 25%.

- **Profitability for potato cultivation in Kisoro District, Uganda**

  Profitability analysis for potato production conducted on 0.25 acres in Kisoro district showed that application of CSA technologies and practices (including Improved drought tolerant seeds (Tauras variety), safe use of fertilizer, soil testing, ridging, pest & disease management, proper post-harvest handling (grading, sorting, cleaning) Good Agronomic Practices (such as timeliness, linear planting, crop rotation)) resulted in increase in production, revenue and profits. Cost of production for 0.25 acres of Tauras potato analysed was Euro 351, the yield was 1,500kgs of which grade one was 1,450kg, unit sales price for grade one was Euro 0.36, resulting into revenue of Euro 522. The gross profit was Euro 171, translating into a gross profit margin of 32%. Compared to the traditional potato production from the same land size which cost Euro 154, yields of 800kgs of which 600kg was grade one, selling price of grade one was Euro 0.36, resulting in revenue of Euro 216, and a gross profit of Euro 62, translating into a gross profit margin of 28%.

[11] Gross Margin Analysis (GMA) focuses on production efficiency and is calculated as total revenue less costs of goods sold divided by revenue. Net Margin Analysis (NMA), on the other hand, is the net earnings left after all expenses, including capital costs (land, equipment, buildings, machinery, etc) interest, and taxes have been deducted from revenue. It reflects the overall profitability. It proved too difficult for the teams to get reliable data on capital costs, interest, and taxes for all NMAs, rendering the exercise futile.

[12] A comprehensive report on the GMAs conducted and conclusions drawn will be finalised in 2025.

- **Profitability of sorghum cultivation in Tharaka Nithi and Meru Counties, Kenya**

A gross margin analysis of five CSA demonstration plots across Tharaka Nithi and Meru Counties revealed that sorghum farming using climate-smart practices is highly profitable. The average yield was 828 kg per site (approx. 23 bags/acre), with gross margins exceeding KES 35,000 per acre and an ROI of 70%. CSA interventions included certified drought-tolerant seeds, ripping (minimum tillage), proper spacing, fertilizer use, timely weeding, and pest management. These improved both yields and grain quality while reducing input costs. Compared to traditional yields (8–15 bags/acre) where recycled seeds were used, CSA plots performed significantly better, making the practice both scalable and farmer-friendly.

- **Profitability for potato cultivation in Nakuru County, Kenya**

Gross margin analysis for potato production using certified seeds and manual operations was conducted on a 0.25-acre plot. The application of Climate Smart Agriculture (CSA) practices—including certified seed use, soil testing, proper land preparation, farrowing, linear seed placement, and correct fertilizer application—resulted in improved productivity and returns. The total cost of production was KES 94,400, while the yield was at 2,600 kg, sold at KES 50 per kg, generating KES 130,000 in revenue. This resulted in a gross profit of KES 35,600, translating to a gross profit margin of 27.4%. The analysis highlights the importance of bundling CSA practices to enhance profitability, especially through improved seed quality, proper planting methods, and basic soil health interventions.

- **Profitability of common bean cultivation in Nakuru County, Kenya**

Gross margin analysis was conducted across three sites (Kamara, Mau Summit, and Kuresoi North) to assess the profitability of common bean production using certified seeds (Chelalang and Nyota varieties). Farmers applied Climate-Smart Agriculture (CSA) practices including use of certified seed, crop rotation, linear planting, surface planting, timely weeding, and pest/disease management. At Kamara, the 0.25-acre demo yielded 166 kg and generated a revenue of KES 16,600 with a production cost of KES 8,680, resulting in a gross profit of KES 7,920 and a gross margin of 48% while at Mau Summit, the yield was 176 kg, revenue was KES 17,600, cost was KES 9,310, gross profit was KES 8,290, and gross margin stood at 47%. In Kuresoi North, the plot yielded 116 kg, revenue was KES 11,600, cost was KES 8,947.50, giving a lower profit of KES 2,652.50 and a gross margin of 23%. These findings highlight the potential of using certified seeds to significantly improve profitability in bean farming.

- **Profitability of potato cultivation in Njombe District, Tanzania**

Gross margin analysis was conducted in Mtwango village in Njombe district under Isowelu Amcos. Results show that, adopting only improved seed variety (sagita variety) results in a 50% yield increase compared to the control (120 vs 80 bags). Despite the higher cost of investment (58% vs control), the gross margin more than doubles (from €1,330 to €2,890). This shows that improved seed alone is a cost-effective CSA practice that significantly boosts profitability. Adding soil testing and agri-lime to improved seed further increases productivity by 25% (150 vs 120 bags) at only a 7% higher investment. Gross margin improves by an additional €720, making this option one of the most cost-efficient CSA bundles. It demonstrates the importance of soil fertility management for maximizing the potential of improved varieties. While investment is much higher (146% compared to improved seed alone), drip irrigation guarantees stable productivity (150 bags) and allows farmers to fetch a higher market price (€30 vs €24 per bag), due to better quality and off-season market advantage. Just in the first season of investment to drip irrigation, a farmer can return an investment cost and generate profit. This is attributed to the fact that the cost of pest control is reduced to only 20%

of the normal pesticides' investment cost. Moreover, the price of potatoes during the October-November season is higher and can go beyond €30 per bag because during that time potato become scarce across the country's local markets. Gross margin increases to €4,440, which is the highest among all options. However, the profit-to-investment ratio is lower compared to soil fertility management. This means drip irrigation is a high return but capital-intensive CSA technology, suitable for farmers with access to credit or strong market linkages.

- **Profitability for sunflower cultivation in Nanyumbu District, Tanzania**

Gross margin analysis was conducted in Nanyumbu District in Mtwara region. Local practice has a very low gross margin despite minimal investment. Productivity is only 300 kg/acre, which is insufficient for meaningful profitability. This explains why farmers often remain in low-return cycles when relying on traditional practices. Adoption of improved seed (Record variety) with basal and top-dressing fertilizer increases productivity by over 230% (1,000 vs 300 kg). Investment is about two time higher, but the gross margin grows almost twenty times**.** This clearly shows the cost-effectiveness of CSA practices in sunflower production. The improved technology ensures higher returns, better soil fertility management, and resilience to climate variability compared to the control.

- **Profitability for common bean cultivation in Kalambo District, Tanzania**

Gross margin analysis was conducted in Kizombwe village in Kalambo District, Rukwa region. Local practice results in low yields (360 kg) and a small gross margin (€60). Farmers using this approach earn very little despite moderate investment, keeping profitability constrained. Productivity rises by 167% (960 from 360 kg) when improved seeds and fertilizer are adopted. Investment almost doubles but the gross margin increases more than seven times. Higher yields combined with a better market price due to quality of the produce and uniformity of the variety (€0.74 vs €0.56 per kg) amplify profitability. This shows that CSA practices (improved seed (Njano Uyole variety + fertilizer) significantly enhance both production and returns, making beans a highly profitable enterprise.

5.3 Climate resilience

In Kenya, farmers are increasingly strengthening their resilience through diversified cropping systems that integrate cereals, legumes, root crops, vegetables, fruits, fodder, oilseeds, and high-value cash crops. This approach reduces reliance on a single crop, mitigates the risk of total crop failure, and improves both food and income security. By balancing short-term consumption needs with long-term income opportunities, farmers are better equipped to withstand climate shocks, market fluctuations, and seasonal shortages, leading to more stable livelihoods and improved adaptive capacity.

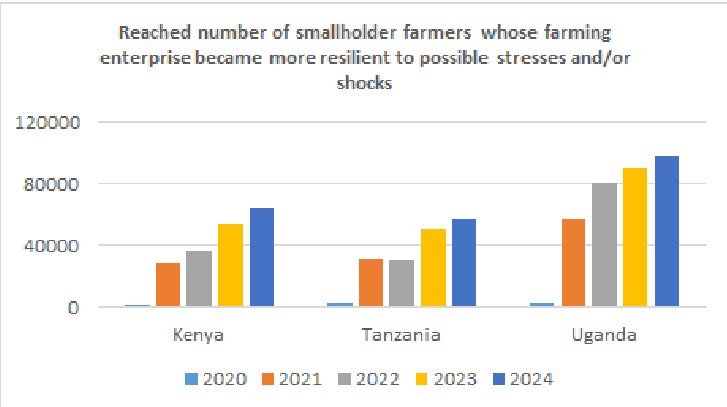


Figure 15: Number of SHFs with more resilient farming enterprises

Before CRAFT, Uganda SHFs used conventional/traditional farming methods like using home-saved seeds, broadcasting as a method of crop planting, resulting in low yields. The introduction of CSA encouraged multiple gender participation because the technologies were more streamlined and easier to apply by everyone. For example, the average on-farm soybean production and productivity of farmers was 300kgs per acre before CRAFT and it increased to 600kgs per acre because of CSA interventions and the incomes also increased by 50% through adoption of soybean climate smart agriculture production practices.

In Tanzania, farmers embraced resilient practices involving diversified cropping systems, use of drought-tolerant seed varieties, soil management, and use of weather advisories. In dry central Tanzania, farmers are using agroforestry, organic soil adjustments, and intercropping. Napier and Brachiaria grass species have been introduced to combat soil erosion while at the same time producing fodder for livestock.

5.4 Scaling CSA

Across the three countries, with regional variations, we note several indications of scaling[13] the application of CSA practices and technologies. These indications relate to:

- **Geographical expansion** (new farming areas outside the project's coverage area), SHF outreach growth (more SHFs reached by the current BCs and replication by non-project farmers),
- **Expansion of acreage** under CSA cultivation
- Diversified application of CSA to a **wider range of crops** than the ones targeted by the project
- **Crowding in** of agribusinesses and service providers
- Expansion of available **CSA training and extension capacity** (CSA trained extension workers, ToTs, demo plots, and technical manuals).

In Kenya, field observations show CSA adoption is extending beyond the targeted CRAFT crops. Farmers have increasingly applied mulching, minimum tillage, and improved seed varieties to non-CRAFT crops such as maize, vegetables, and other staples. Neighbouring farmers who are not formally part of CRAFT but are exposed to demonstration plots have also replicated CSA practices, indicating strong potential for spillover benefits and wider impact.

In Uganda, the CRAFT project already has a broader reach beyond its direct training efforts. A large portion (87%) of farmers that were not directly supported by the project adopted the CSA practices through peer-to-peer learning[14].

In Tanzania, farmers are expanding the use of CSA practices and technologies to other crops. 95% of the farmers interviewed are planting more than one crop including CRAFT supported crops in a season. Such crops are Maize, Pigeon peas, Lentils, Wheat, Millet, Horticulture. This diversification reflects farmers' adaptive response to climate variability, food security needs, and market opportunities. These farmers reported to use some of the

[13] Scaling is the process of expanding beneficial practices over geographies and across organizations to impact larger numbers of people. Scaling aims to increase the use of innovations (pilots) to impact many people. Scaling suggests providing a real solution for large numbers of people. Scaling should ideally lead to a sustainable system change in which the impact remains, or even accelerates, without further project or donor interventions.

[14] A total of 4,676 smallholder farmers were interviewed during the 2024 survey. 473 of these farmers were never trained in CSA. 87% adopted CSA practices after learning from their peers.

CSA practices and technologies learnt from the CRAFT project to these other crops such as using improved seed variety, fertiliser and planting in ridges/line.

5.5 Integration of gender and youth

In 2024, the CRAFT project commissioned a qualitative assessment of the impact (effectiveness) of GESI integration in the internal operations of BCs, in their value chains, as well as in their engagement with SHFs (farming households). The final report is due in 2025 and will contain assessments of changes observed regarding participation in the value chains, shifts in attitudes and perceptions, voice in community leadership, and changes in inter-household power balances (e.g. in decision-making). The report will contain both common observations and conclusions across the three countries and value chains, and country and value chain specific differences. In addition, the report will contain recommendations for policy makers, development partners, extension departments, and agribusinesses for future programming of GESI interventions related to climate smart agriculture. Some preliminary observations are shared in this section.

5.5.1 Inclusive participation

There is significant influence of leadership demographics, service delivery models, and financing structures on the inclusion of women and youth in climate-smart agriculture (CSA) services. Embedded service delivery models offered more predictable access but did not always ensure equitable participation, while structured financing models, especially those leveraging village savings and loan associations (VSLAs), facilitated greater inclusivity compared to informal methods.

Despite positive examples like Byeffe, Sebei SACCO, and Kaplomboi Cooperative, women and youth remain underrepresented as service providers and entrepreneurs, largely due to structural barriers including limited land ownership and resource control. CSA practices have positively influenced productivity and resilience but often intensified workloads for women and youth, particularly those with limited autonomy. Structural barriers related to land access, financial inclusion, and traditional gender roles remain significant obstacles.

5.5.2 Gender and youth empowerment

The assessment underscores significant gains in gender and youth participation through CSA interventions, with notable progress in productivity, income diversification, and empowerment opportunities. However, persistent structural barriers and socio-cultural constraints continue to limit equitable participation. Empowerment levels vary significantly across value chains, even within the same country. More commercialized or organized chains (like potato and sunflower in Uganda and potato in Kenya) correlate with higher empowerment. Youth, especially in Uganda and Kenya, often report higher 3DE and Pro-WEAI [15]scores than senior groups, indicating that younger cohorts may be benefiting more from interventions or are more open to change. Despite overall progress, gaps in empowerment achievement and intra-household equality remain, particularly in Tanzania's sorghum and sunflower value chains and in Kenya's green gram value chain.

5.5.3 Governance and leadership

While significant strides have been made towards governance improvements, business capacity enhancements, and positive shifts in gender perceptions, continued efforts are needed to address remaining structural, perceptual, and operational barriers. Sustained focus on inclusive governance, targeted financial access, and advocacy-driven cultural change will be essential to achieving long-term agribusiness resilience and equity. While governance structures and leadership capacities have improved, persistent gaps in strategic decision-making and technical expertise remain. Mixed progress on gender perceptions indicates incremental shifts in

[15] 3DE refers to the three domains of empowerment (Personal, Social, and Economic). Pro-WEAI is the Project level Women Empowerment in Agriculture Index.

attitudes but underscores enduring socio-cultural barriers. Continued institutional and infrastructural constraints, especially around credit access and market intelligence, limit business growth.

5.5.4 Institutionalizing inclusion

Institutionalizing gender equality and social inclusion within agribusiness enterprises, as evidenced by CRAFT-supported cases, presents both significant achievements and substantial areas for growth. Exemplars such as Starlight Cooperative demonstrate the tangible benefits of integrated GESI frameworks, while others highlight ongoing gaps requiring targeted intervention and support. Ultimately, embedding GESI principles deeply into organizational DNA ensures sustainable inclusivity and positions agribusinesses to achieve equitable and enduring development outcomes. Despite visible GESI integration efforts, substantial gaps remain in translating principles into internal systems. Women-led and youth-led enterprises demonstrate more inherent integration of GESI, highlighting a strategic direction for future interventions.

6. Looking ahead to 2025

6.1 Remaining tasks and priorities

6.1.1 BC strengthening

Work plans and agreements are in place for continued capacity strengthening until the end of June 2025. Below are the key remaining areas of attention:

In Uganda:

- Engagement of access to finance expert and service providers (especially Angel and social investors with focus on climate change, women and youth engagement), to complement sustainability through access to finance.
- Engagement of market experts such as UNBS, Tax agents, export certification bodies and agents to support compliance of BC businesses.
- Business to Business workshops (6) to support integration of business assessment feedback into sustainability plans.
- Business plan follow-up support to BCs on identifying financial institutions (2 workshops) for resource mobilization.

In Kenya:

- Hand-over of remaining strategic documents (SDM reports as operational guides for BCs, highlighting best practices in climate-resilient value chains, efficient input access, mechanization models, and proven market linkages. The hand-over includes training sessions on using the SDMs, business plans, and investment memos, along with practical support for integrating digital tools like eProd and Hello Tractor.

- Follow-up on the progress of Marakwet Highlands FCS SACCO formation after the successful exchange visit to Pesi, Kwikas and Starlight SACCO in July 2025.
- Support Freshcrop to host the 13th World Potato Congress on partnerships requirements
- Follow-up on effectiveness of policy documents developed for Starlight Wakulima SACCO in line with the overall strategic pillar of the SACCO.
- Courtesy calls to business champions with an aim to assess the project's successes, pitfalls and assess strategic growth plans of BCs.
- Follow up on BCs youth council fundraising initiatives, side projects and investor readiness trainings
- Facilitation of 30 BC representatives to attend a final knowledge sharing forum with BCs exhibiting their products.

In Tanzania:

- Follow-up on recommendations from cropping system study
- Follow-up on implementation of revised business plans (progress monitoring)
- Business pitching training and follow-up
- Final reflection meetings

6.1.2 Climate analysis

Climate change impact stories will be developed for selected cropping systems in the three countries, modelled after the CRA sheets and targeting business champions and policy influencers. These are expected to help communicate complex climate science in a user-friendly and decision-relevant format. The climate change narratives will summarize key decadal predictions for climate variables, climate change impacts on cropping systems, short-term suitability maps for selected value chains, and effects of adaptation strategies on yields.

Adaptation measures are provided with concrete illustrations of the effect of changing planting time on crop yield and the effect of improved seeds on crop yield. The stories will end with recommendations for different types of stakeholders. The target group of the climate impact stories include business champions, cooperatives, policy makers, NGOs, embassies and extension staff. Farmers are not directly targeted. Extension staff will convey the information in the climate impact stories to farmers.

The focus for these climate impact narratives will be on selected cropping systems in each of the three countries. In Uganda, the cropping systems selected are potato-climbing bean in Kigezi and soybeans-maize in Mubende. In Kenya, these are potato-common beans in Nakuru and sorghum-common beans in Tharaka Nithi. In Tanzania, these are potato-common beans in Njombe and potato-common beans in Rukwa.

6.1.3 Institutionalizing CSA

The Uganda will hold CSA-multi-stakeholder meetings to increase BC partnerships. In Kenya, the team will organize refresher CSA ToT trainings, exit from the MSP and provide linkages to CRAFT BCs, and sensitization of the KALRO Agro-advisory platform for wider dissemination of CSA information. In Tanzania, the team will host the long-awaited official launching of the CSA manuals, after which they will be distributed to the intended users.

6.2 Project closure activities

6.2.1 End-of-project evaluation

The CRAFT team will provide logistical support and access to requested information and materials for the external evaluation team. The team will accompany the evaluators during the data collection field visits. The team, including consortium partners and SNV global support staff, will provide feedback on initial findings (validation session) and on the draft evaluation report.

6.2.2 2025 data collection

A mix of farmer surveys and FGDs will be conducted in the three countries with a reduced sample of BCs and SHFs. This will be tailored to the level of agricultural activities that have taken place prior to the end of August, as well as time and resource limitations for the CRAFT teams. A full annual survey comparable to what was done in previous years involving all BCs and all crops/cropping systems is not feasible.

6.2.3 Final knowledge management and communications activities

Publication on GESI integration in CRAFT

The GESI assignment will be concluded in the first half of 2025. As part of the overall consultancy assignment, a training workshop will be held for BC field staff and SNV project staff on understanding, designing and facilitating GESI-transformative interventions. The full assessment report and training curriculum will be completed and disseminated to internal and external audiences. A glossy publication will be prepared for external audiences.

Publication on CSA profitability for SHFs

A consolidated narrative on CSA profitability analyses (GMA) will be developed into a publication for internal and external audiences. This publication will present gross margin analysis findings for five selected crops comparing the costs and benefits of applying CSA practices on demo plots with conventional practices on farmers' plots.

Country-specific knowledge and communications products

The Uganda and Tanzania teams will finalize and disseminate booklets with the business profiles of BCs, for use when interacting with potential funders and partners.

6.2.4 Handing-over activities

The CRAFT teams will be organizing joint field monitoring and hand-over visits with relevant government partners and others.

6.2.5 Project closure events

The Uganda team intends to organize end of project learning events and exhibitions for agribusinesses, cooperatives, and service providers. Tanzania will hold an official national-level project closure event for key stakeholders. In Kenya, a knowledge sharing forum will be hosted to reflect on the journey of the project, engage with key partners and explore innovative solutions shaping the future CSA.

6.2.6 Final reporting

An end-of-project report will be drafted during the final months of 2025. This report will capture the main achievements, challenges, and lessons learnt from seven years of CRAFT implementation. The main purpose of this report is to capture strategic insights that can inform future programming of similar interventions.

Annex

Financial report 2024 (EUR)

CRAFT consolidated financial report for January - December 2024					
Cost category	**Budget 2024**	**Expenditure 2024**	**Depletion %**	**Deviation**	**Explanation for deviations >10%**
SNV staff	938,610	1,009,155.65	108%	-70,545.65	More GTA days used than planned for the learning event
Partner staff	252,537	193,975.52	77%	58,561.48	Quarterly reports not submitted in time (Agriterra Q3 + Q4 and WENR Q4)
Consultants	526,678	353,415.66	67%	173,262.34	Overestimated consultancy needs, several big assignments in UG and TZ postponed to next year
Activities	871,296	783,973.66	90%	87,322.34	
Travel	227,901	172,170.07	76%	55,730.93	Over-estimated international travel for SNV and WENR, Agriterra travel reimbursements for Q3 and Q4 not submitted in time
Office costs	215,760	222,143.71	103%	-6,383.71	
Sub-total	**3,032,782**	**2,728,335.04**	**90%**	**304,446.96**	
Programme delivery costs	197,131	177,547.66	90%	19,583.34	
Indirect programme costs	250,048	247,270.64	99%	2,777.36	
TOTAL	**3,479,961**	**3,159,652.57**	**91%**	**320,308.43**	

Project-to-date depletion by December 2024 (EUR)

Overall PTD budget depletion	
38,350,366.10	Actual expenditure
40,296,645.90	Total budget
1,945,645.90	**Available balance 2025**