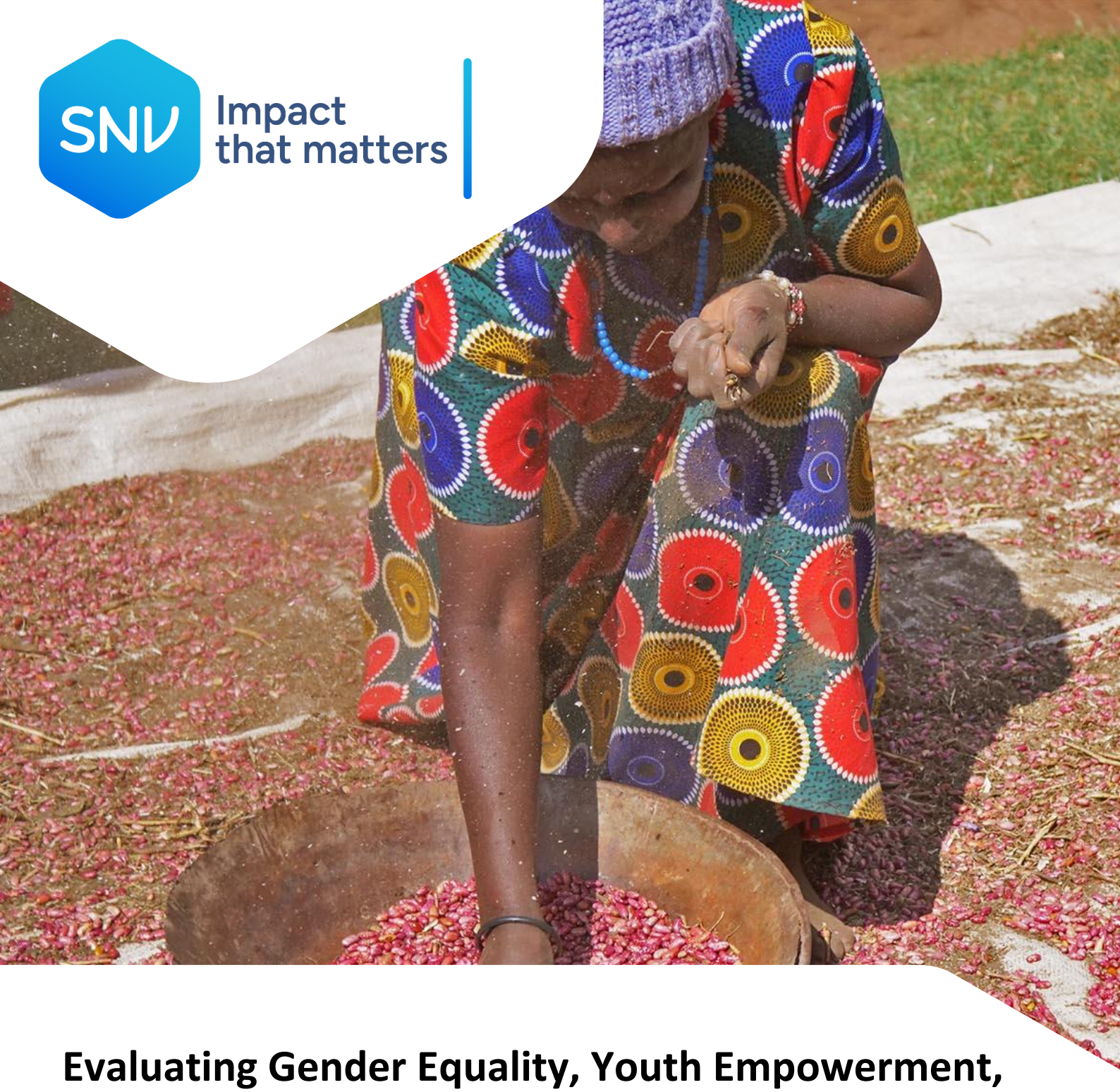

Evaluating Gender Equality, Youth Empowerment, and Social Inclusion in Climate-Smart Agriculture: A Multi-Country Assessment of CRAFT Initiatives

Climate Resilient Agribusiness for Tomorrow project

September 2025

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List of abbreviations

3DE	Three Domains of Empowerment
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CRAFT	Climate Change Resilient Agribusiness for Tomorrow
FGD	Focus Group Discussion
GALS	Gender Action Learning Systems
GBV	Gender Based Violence
GPI	Gender Parity Index
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICT	Information and Communication Technology
IPV	Intimate Partner Violence
PIP	Integrated Farm Planning
Pro WEAI	Project Level Women Empowerment in Agriculture Index
PWD	Persons with Disabilities
SDG	Sustainable Development Goal
UDHR	Universal Declaration on Human Rights
UNDP	United Nations Development Programme
WEE	Women Economic Empowerment

Executive Summary

This executive summary provides an overview of the assessment of Gender Equality and Social Inclusion (GESI) interventions under the Climate Resilient Agribusiness for Tomorrow (CRAFT) project, implemented in Kenya, Uganda, and Tanzania. Commissioned by SNV Netherlands Development Organisation, this evaluation assesses the effectiveness, both intended and unintended, of GESI-oriented interventions focusing on improving participation, leadership, voice, service access, inter-household power relations, and economic resilience among women, youth, female-headed households, and youth-headed households.

This evaluation draws on a mixed-methods design combining quantitative surveys, qualitative focus group discussions (FGDs), key informant interviews (KIIs), and institutional assessments conducted across Kenya, Uganda, and Tanzania.

The quantitative survey covered 1,893 households from 13 purposively selected business cases, ensuring diversity in geography, value chains, gender leadership, and baseline participation. Respondents were categorized into five groups: senior men, senior women in male-headed households, senior women in female-headed households, young men, and young women, allowing comparative analysis. The Project-level Women's Empowerment in Agriculture Index (Pro-WEAI) framework guided measurement of empowerment across ten indicators and three agency domains.

The qualitative component comprised 79 FGDs with participants stratified by gender, age, and household type, including persons with disabilities. These discussions provided insights on empowerment dynamics, adoption and impact of CSA technologies, and perceptions of change.

Institutional assessments included surveys and interviews with managers and CEOs of cooperatives and SMEs representing key CRAFT-supported value chains, focusing on their internal GESI policies, structures, and practices.

Analytical frameworks applied included Pro-WEAI for empowerment analysis, a GESI institutionalization framework for organizational assessments, and a value chain participation lens to examine women and youth inclusion. Quantitative data were analysed using descriptive statistics and significance tests (t-tests, chi-squared), while qualitative data underwent thematic analysis. Findings were triangulated and validated through stakeholder consultations to ensure contextual relevance and robustness.

Key findings indicate that CRAFT effectively advanced gender-responsive Climate-Smart Agriculture (CSA) practices, technologies, and inclusive strategies, particularly through the Climate Resilient Agribusiness Farmer Field Schools (CRAFFS) model, reaching over 265,000 farmers (53% women). Significant gains included increased women's leadership roles, confidence, and empowerment, as exemplified by female facilitators' enhanced status within their communities and active roles in promoting CSA adoption. For instance, tailored training and the promotion of women as technical leaders and facilitators significantly improved their visibility and decision-making roles at both household and community levels.

Effective financial models implemented, including Village Savings and Loan Associations (VSLAs), Savings and Credit Cooperatives (SACCOs), deferred payment options, and formal banking linkages, notably improved women and youth's financial autonomy and market participation. Additionally, the adoption of

labour-saving technologies like mechanized threshers, herbicide use, and digital advisory services positively impacted women's workload, reducing physical strain and time poverty.

Success factors identified included participatory methodologies, tailored and flexible training curricula, institutional policy reforms, deliberate inclusion of marginalized groups such as persons with disabilities (PWDs) and elderly, and the framing of CSA interventions as adaptable bundles of options enhancing accessibility.

Unintended positive outcomes were also notable, such as the enhanced inclusion of elderly and PWDs, strengthened intergenerational knowledge exchanges leading to improved localized climate forecasts, and expanded entrepreneurial roles for youth in mechanized and input service provision.

However, unintended negative consequences were documented, including increased child labor arising from limited access to ergonomic CSA technologies suitable for PWDs and women, reinforcement of traditional gender roles, and some reassertion of male control over resources post-training. Additionally, COVID-19 restrictions disrupted essential coaching and mentoring support, limiting full implementation of GESI action plans.

Reflecting on these findings, future programming should focus on deeper integration of gender-climate risk analysis, expanded ergonomic technology adaptations, robust safeguarding measures, and a more comprehensive cultural shift toward gender equity to enhance sustainability and minimize unintended negative outcomes. These insights provide valuable guidance for stakeholders, including policymakers, development partners, extension departments, and agribusinesses, aiming to foster inclusive and resilient agricultural systems.

Figure 1: GESI FGD in Tanzania

Introduction

1.1 Background

The Climate Resilient Agribusiness for Tomorrow (CRAFT) Project, led by SNV Netherlands Development Organisation and funded by the Netherlands Ministry of Foreign Affairs, is implemented in Kenya, Tanzania, and Uganda. The project, in collaboration with Wageningen University and Research, Agriterra, AICCRA, and Rabo Partnerships, promotes climate-smart agriculture (CSA) through technical assistance, business facilitation, and knowledge management. CRAFT is structured around three pillars: adoption of CSA practices in arable farming systems; investment and business growth in target value chains (i.e., beans, green grams, potatoes, sesame, sorghum, soybeans, and sunflower); and improvement of the enabling environment for CSA scaling.

CRAFT employs an inclusive business approach to mitigate climate change effects on agriculture and foster sustainable production. It engages SMEs and public sector actors to integrate CSA technologies and practices into supply chains. Proven CSA innovations, ranging from soil and water management to energy and post-harvest technologies are tailored to farming systems and SME operations. A core principle of the project is ensuring these practices are gender-responsive, meeting the needs of both female and male farmers to promote equitable adaptation to climate change.

This study evaluates CRAFT's progress over 6.5 years in promoting gender equality and social inclusion (GESI) in CSA adoption. It examines achievements, challenges, accessibility, affordability, and the realized costs and benefits, with particular attention to youth- and female-headed households. It also identifies barriers to greater gender and youth integration in business operations and proposes recommendations to overcome these challenges.

1.2 Objectives and Focus

This GESI-focused evaluation aimed to assess the effectiveness of CRAFT's interventions; both intended and unintended across six key objectives: inventorying GESI-related activities and knowledge products; evaluating gender/youth implications per crop and country; assessing integration into business strategies; analysing impacts of CSA adoption on gender and youth roles; evaluating GESI effectiveness in business cases and households; and synthesizing lessons and recommendations. Elements of broader social inclusion, including disability and minority group considerations, were also integrated where feasible.

1.3 Organization of the Report

The report is structured by evaluation objective. Chapter 3 describes the survey sample. Chapters 4–10 sequentially address the six objectives, from an inventory of GESI interventions and knowledge products to detailed assessments of empowerment, CSA uptake, institutionalization of GESI, and final lessons and recommendations.

Figure 2: Sunflower value addition from P'Kwi in Uganda

Description of the survey sample

1.4 Sampling of selected business cases

A total of 13 enterprises were purposively selected from the 56 supported under the CRAFT program to participate in the end-line Gender Equality and Social Inclusion (GESI) assessment. The selection ensured representation across value chains, geographies, enterprise scales, and gender leadership profiles, enabling a comprehensive analysis of gender and youth integration in climate-smart agribusiness.

Key criteria included geographic diversity to reflect differing socio-cultural contexts and institutional capacities, and enterprise scale based on the number of smallholder farmers (SHFs) engaged. Preference was given to businesses operating across multiple value chain stages; input supply, production, processing, and marketing to provide holistic insights into gender dynamics within agribusiness.

A deliberate effort was made to include at least one women-led or women-owned enterprise per country, given their potential for advancing gender-transformative practices. These included Vibinjo Cooperative (Tanzania), Starlight Farmers' Cooperative (Kenya), and Byeffe Foods Ltd. (Uganda). Several businesses were also revisited from the baseline gender analysis to allow for comparative insights on progress over time.

Selection was further guided by country teams based on demonstrated progress or innovation in integrating GESI into CSA. These cases offered valuable lessons for scaling inclusive CSA technologies and services, especially for youth, women, and other marginalized groups such as persons with disabilities.

Each business represented a key CRAFT value chain; green grams, sorghum, beans, potatoes, soybeans, sesame, or sunflower and underwent a mixed-methods assessment, including household surveys, gender- and age-disaggregated FGDs, and institutional gender scans.

Table 1: The 13 (out of 56 business cases) that participated in the survey to varying degrees

Country	Enterprise	Value Chain(s)	Baseline	Women-led	Youth-led	GESI Innovation	Diversity Focus
Kenya	IMCOS Ltd.	Green grams	X				
Kenya	Starlight Farmers' Cooperative	Potato		X	X	X	
Kenya	Kaplomboi Ruto Coop. Society	Common beans					X
Kenya	SOPA Millers	Sorghum					X
Tanzania	Vibinjo Cooperative	Common beans		X			
Tanzania	EAFFC (EA Foods Ltd.)	Potato	X		X	X	
Tanzania	Jackma Enterprises Ltd.	Sunflower	X				
Tanzania	Kibaigwa Flour Supplies Ltd.	Sorghum				X	
Uganda	Byeffe Foods Ltd.	Soybeans		X		X	
Uganda	Nyekorac Cooperative	Sesame	X				
Uganda	Sebei SACCO	Sunflower	X		X	X	
Uganda	OKEBA Uganda Ltd.	Soybeans	X			X	
Uganda	KDPGCUL	Potato					

1.5 Focus group discussions and their distribution

A total of 79 focus group discussions (FGDs) were conducted across three countries: Kenya (20 FGDs), Tanzania (27 FGDs), and Uganda (32 FGDs). Each group engaged an average of 7 participants, with

discussions organized in 3 to 5 demographic categories per location, adapted to local context and mobilization realities, to ensure inclusive representation.

Participants groups included:

- Persons with Disabilities (PWDs)
- Female-headed households (FHHs)
- Youth (18–34 years, mixed gender)
- Senior women (35 years and above)
- Senior men (35 years and above)

To maximize inclusion and logistical efficiency, discussions were facilitated simultaneously across groups by Trainers of Trainers (ToTs) in Uganda and Tanzania, and SNV/CRAFT staff in Kenya. Segmenting by demographic allowed participants to speak freely in peer settings, yielding deeper, more context-sensitive insights into gender, youth, and social inclusion dynamics.

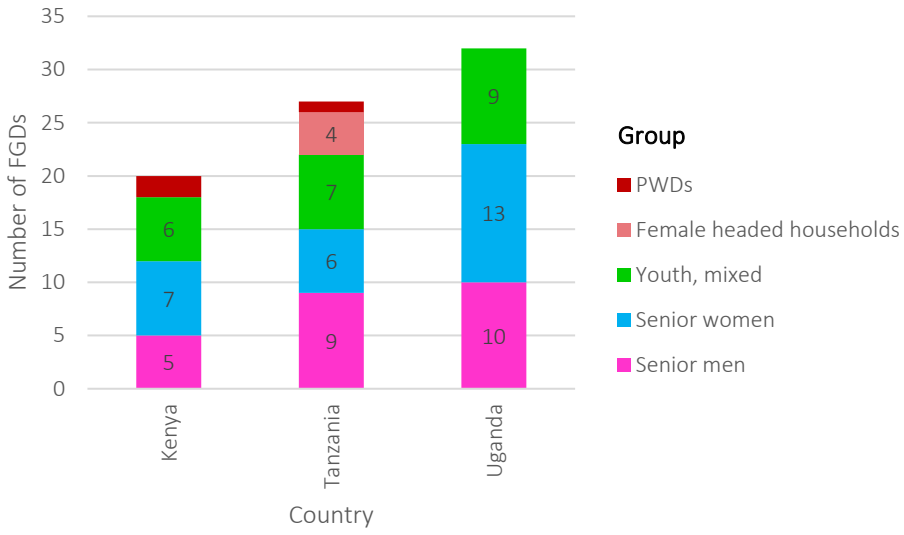

Figure 3: Number of FGDs by gender group and country

Figure 1 illustrates the distribution of FGDs by gender and country, providing a regional comparison of engagement across demographic groups. Figure 2 highlights how FGDs were distributed across CSA

technologies, innovations, and management practices (TIMPs), analyzed further by commodity value chains.

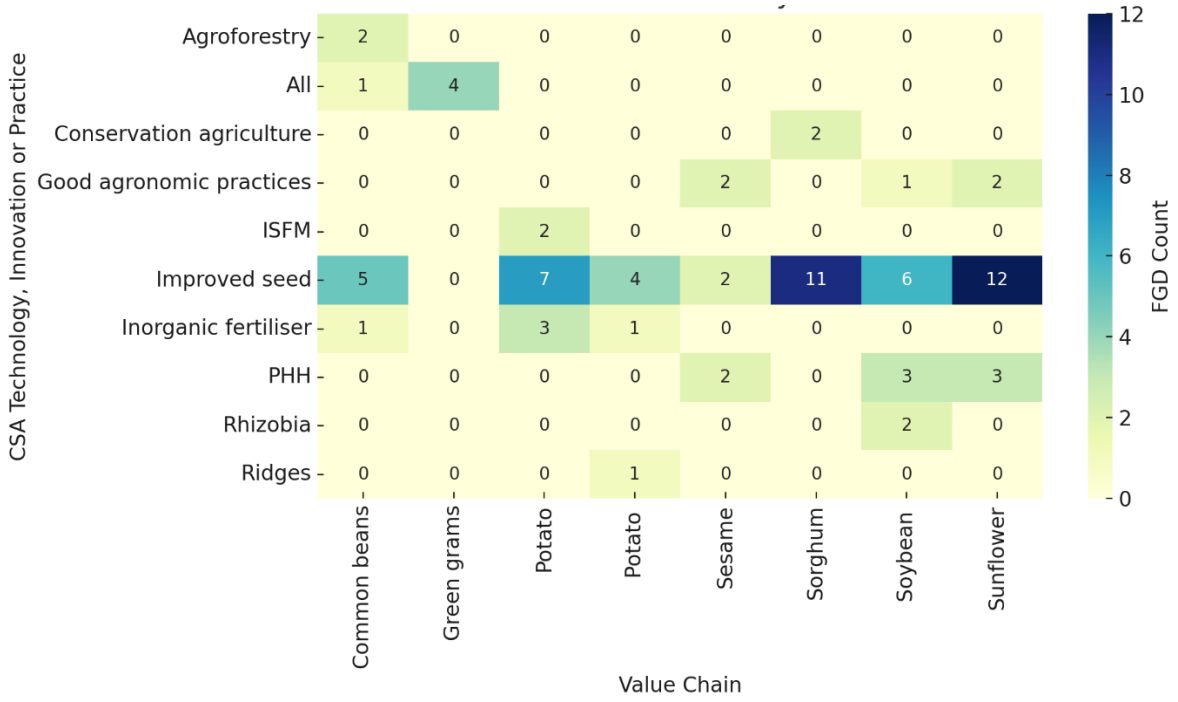

Figure 4: Number of FGDs held by CSA technology, innovation or management practice (TIMPS) across commodity value chains

1.6 Household survey respondents

Two types of households were defined for the descriptive gender analysis, following Malapit et al. (2020): (1) *male-headed households* (MHH), which include both a male and a female aged 18 or older, and (2) *female adult-only households* (FHH), where only women aged 18 and over are present, with no adult males. The household survey dataset includes responses from 1,893 households (1,518 male headed households and 375 female headed households). Table 2 shows the spread by country and gender group while a detailed breakdown of the respondents by country, commodity value chain, and respondent group is provided in the Annex Tables 2A–2C.

Figure 5: A male headed household in Uganda

Table 2: Number of respondent surveys by country, gender-age group, and household type

Respondent group	Kenya	Tanzania	Uganda	Total
Senior Men	211	117	260	**588**
Senior Women in Male-Headed Households (MHH)/marital homes	178	102	222	**502**
Senior Women in Female-Headed Households (FHH)	100	54	163	**318**
Young Men	69	25	77	**171**
Young Women	104	56	154	**314**
Total	**662**	**354**	**876**	**1,893**

To enable gender analysis without overlapping the samples, we defined five mutually exclusive respondent groups (see Table 2). Comparisons were then structured as follows:

- Senior men vs. senior women in MHH – to explore gender gaps within "older marital" households.
- Senior men vs. senior women in FHH – to assess the position of women in female-headed settings, which could include potential disparities in autonomy, workload, or access to resources, etc.
- Young men vs young women to assess the youth-specific gender gaps and vulnerabilities.

Youth (aged 18–34) were analyzed as a single category, regardless of household type, due to limited sample sizes in disaggregated youth groups across household types.

1.7 Surveys of the business champions

The study interviewed eight (IMCOS, Starlight, Kaplamboi; Sebei SACCO, KDPGCUL, Nyekorac; and JAKMA and Kibaigwa) of the selected 13 business champions (62% response rate). The champion's survey was initially designed to be self-administered online.

Figure 6: a farmer living with disability from Kenya

Inventory of GESI-related activities undertaken, and knowledge products produced by the CRAFT partnership ecosystem in the three countries.

1.8 Inventory of GESI knowledge products of SNV/CRAFT

The evaluation reviewed 120 SNV/CRAFT knowledge products to assess the extent of gender equality and social inclusion (GESI) integration. Documents were sourced from internal project files, public repositories, and online searches. Each was screened for relevance and analyzed using the Reach–Benefit–Empower (RBE) framework, a tool designed to classify how agricultural interventions address gender and social inclusion outcomes.

Using a five-tier classification system (from Tier 0: no GESI content, to Tier 4: strong gender-transformative content), only documents with substantial GESI engagement (Tier 4) were retained in the final synthesis. Of the total reviewed, 37 were classified as Tier 4, with 26 unique documents remaining after the business case profiles with a high level of GESI integration were excluded (Figure 3). These materials included technical manuals, journal articles, case studies, and outcome stories, and demonstrated tangible efforts to embed GESI into agribusiness interventions.

Foundational GESI documents, such as the CRAFT GESI strategy and gender audits, were listed separately and not tiered. The full inventory is available in the detailed report.

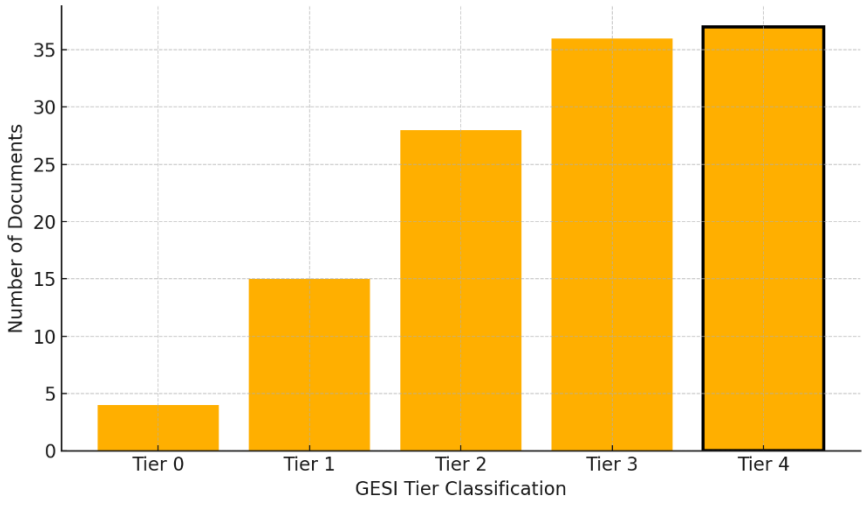

Figure 7: Number of SNV/CRAFT documents by Tier classification

1.9 Gender equality and social inclusion interventions in SNV/CRAFT agribusiness programming

Methodology

The review analyzed Tier 4 documents, panel discussions, and interviews with business case leaders to extract impactful strategies. Interventions were categorized into two main levels: farmer-facing inclusive service delivery (supply level) and institutional internal reforms (workplace level). Data collection involved systematic documentation and qualitative insights gathered from GESI-focused interactions.

Key supply-level interventions

SNV/CRAFT employed several impactful strategies at the supply level. The Climate Resilient Agribusiness Farmer Field School (CRAFFS) reached over 265,000 farmers, of whom 53% were women, embedding gender sensitivity through tailored training, use of female/youth Trainers of Trainers (ToTs), and participatory methodologies. Prioritizing value chains with higher female and youth involvement (e.g., sorghum, green grams – see Table 3), SNV/CRAFT utilized socio-economic research and farmer input to tailor Climate-Smart Agriculture (CSA) practices to the specific needs of different demographics.

Table 3: CSA TIMPS priorities for the sorghum value chain in Kenya for women, men and youth by impact area

Impact area	Women	Men	Youth
Diversification	• *seasonal weather forecasts* • *CSA and circular agriculture practices* • *contour farming* • *soil water drainage*	• *blended scientific + Indigenous Technical Knowledge (ITK) climate info* • *spray programs* • *mechanized threshing & grain cleaning* • *IPM* • *inorganic inputs*	*low-capital, labor-saving practices* such as *hermetic bags*, *scarecrows*, *drought-tolerant varieties*, *crop rotation*, *intercropping*, and *spray programs*
Profitability	• *inorganic fertilizers*		
Return on labour	• *mechanized threshing* • *tarpaulins* • *tractor hire*		*tractor hire* and *access to extension* services

Source: Ngunjiri et al., 2022

Collective action and leadership initiatives empowered women and youth through formation of specific groups, leadership development using Gender Action Learning Systems (GALS), and other transformational tools. Digital inclusion interventions delivered localized weather and advisory services via SMS, radio, and ToTs, significantly increasing timely information access for marginalized groups.

"I get weather messages in Kiswahili. It helps me plan when to plant." – Youth Farmer, Kaplomboi Ruto Cooperative, Kenya

Figure 8: Starlight's tech-enabled weather advisory model

Promoting workload-reducing CSA technologies was central, involving specific labor-reducing practices such as minimum tillage, mechanized tools and decentralized service hubs. Despite productivity gains and reduced labor burdens for women, persistent gaps in mechanization adoption indicated ongoing structural and financial barriers.

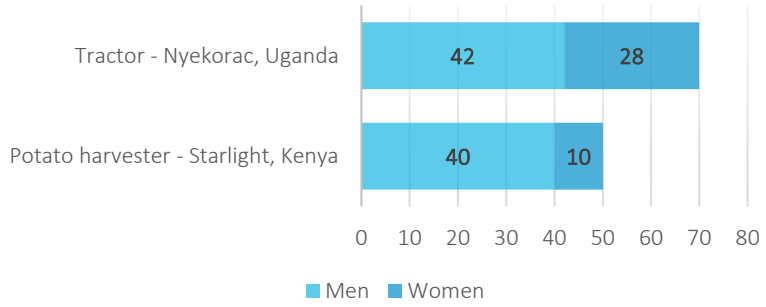

Figure 9: Number of farmers utilizing cooperative-managed mechanization hire services by sex

Inclusive value chain development initiatives opened market access and entrepreneurial roles to marginalized groups, fostering their engagement as seed producers, service providers, and aggregators. Notably, market access strategies, such as collective aggregation, decentralized kiosks, mobile hubs, and contract farming combined with practices such as purchasing by weight and use of reduced-weight packaging significantly improved price transparency and reduced barriers to engagement in markets for women and female youth.

Bundled service models combining finance, inputs, and extension were particularly effective. Community-based agents facilitated inclusive financing, integrating grassroots savings groups (e.g., VSLAs), SACCO-led services, deferred input repayment, and formal banking linkages. These initiatives enhanced marginalized groups' CSA adoption, economic agency, and resilience.

Efforts explicitly targeted Persons with Disabilities (PWDs), elderly, and widows through customized training, demonstration plots, and institutional support, reflecting an intersectional approach to inclusion. Additional localized interventions included land leasing for women, group input procurement, and value addition activities.

Social inclusion of PWDs, elderly and widows in climate smart agriculture (CSA)

To promote equitable access to climate-smart agriculture (CSA), the SNV/CRAFT project adapted its service delivery models to better include persons with disabilities (PWDs), elderly farmers, and widows—groups often marginalized by overlapping social, physical, and economic barriers.

Model: Adapted CSA delivery for PWDs and elderly farmers

Design Features:

- Tailored CSA training and demo plots (e.g. in close proximity, involving caregivers, etc.).
- Cooperative-supported access to inputs and services (improved seed, soil testing, weather info)
- Promotion of less labor-intensive CSA practices (minimum tillage, early planting)
- Peer-led extension and role model development (ToTs with disabilities)
- Support to establishment of PWD dominated groups

Key business cases and contexts

Kisoro District Potato Growers Cooperative (Uganda)

David Semakuba – *Blind farmer and CSA trainer*

Adopted climate-smart practices (crop rotation, recommended spacing, Taurus seed). Received a PDM grant and scaled production and became a ToT and role model.

SOPA Millers, Kenya

Janet Ogar and Immaculate Oduori – *Elderly, widowed PWDs*

"We are now part of our farming communities and participate in activities… people are taking note that we exist!"
– Janet Ogar

Kaplomboi, Kenya

Wesley Korir - *Visually and hearing-impaired bean farmer*

Accessed CSA through a local ToT and demo plot
Improved productivity (60 kg to 180 kg beans), sold produce, and paid school fees

Key GESI features

- Tailored CSA training and demo plots
- Minimum tillage and early planting
- Cooperative linkage for inputs and markets
- Targeted grant and financial access
- Recognition and visibility

Reported outcomes

- Increased crop productivity (e.g., +500% in potato yields)
- Improved household food security and incomes
- Increased self-reliance and reduction of aid dependency
- Participation in community decision-making and cooperative governance
- Role modeling and peer influence (PWDs as ToTs).

Conclusion: CRAFT's approach moved beyond access to **affirmative inclusion**, enabling elderly farmers, widows, and PWDs to become **visible, empowered actors** in climate-smart agriculture through **adapted, inclusive, and community-led models**.

Institutional Workplace-Level GESI Interventions

Internally, SNV/CRAFT facilitated substantial GESI integration within participating organizations. Forty-four business cases (BCs) institutionalized workplace policies addressing anti-harassment, equal pay, and maternity support. Leadership development through quotas, training, and vibrant councils promoted women's and youth's participation in governance structures. Peer learning tools (e.g., GALS, storytelling) effectively shifted organizational norms toward gender equity. Structured internship and youth engagement programs further embedded young people as active agents in CSA roles.

Reflections on CRAFT's GESI Interventions

This chapter examines the effectiveness and unintended outcomes of the CRAFT project's gender equality and social inclusion (GESI) interventions across multiple thematic areas, implemented in Kenya, Tanzania, and Uganda. The comprehensive, actor-driven approach embedded GESI considerations in climate-smart

agriculture (CSA) strategies, training, entrepreneurship, leadership, financial inclusion, institutional structures, and policy advocacy. The project utilized participatory methodologies, including the Climate Resilient Agribusiness Farmer Field Schools (CRAFFS) and the Gender Action Learning System (GALS), which fostered active involvement and leadership among women, youth, and marginalized groups.

Key successes included the establishment of a detailed baseline analysis, which informed the development of gender-responsive CSA technologies and action plans, although deeper integration with climate resilience frameworks was needed. The CRAFFS model trained over 265,000 farmers (53% women), achieving notable improvements in CSA adoption rates, leadership skills, and confidence among women and marginalized populations. Innovative interventions such as mechanized farming, digital advisory services, and tailored financial models significantly reduced women's workload and improved financial autonomy. Women and youth's entrepreneurship was advanced through targeted support, enhancing roles in seed production, aggregation, and service provision, though persistent structural barriers and gender norms limited full equity.

Institutionally, the adoption of formal GESI policies by 44 business cases improved organizational culture, representation, and governance. Leadership quotas, mentoring programs, and dedicated financial instruments like reduced co-investment criteria for women/youth-led enterprises further solidified inclusive structures. Policy advocacy through multi-stakeholder platforms increased women's and youth's visibility and influence in national CSA dialogues and contributed to gender-sensitive advisory frameworks.

Several unintended positive outcomes emerged, notably the expanded inclusion of persons with disabilities (PWDs) and elderly farmers, facilitated by adaptive CSA technologies framed as flexible "bundled options." This resulted in enhanced community respect, strengthened intergenerational knowledge exchange, and improved indigenous forecasting methods. Moreover, cooperative reforms and formal financial integration surpassed original objectives, elevating organizational legitimacy and household financial empowerment.

Conversely, unintended negative consequences highlighted critical areas for improvement. COVID-19 disruptions weakened the implementation of GESI action plans. Increased child labor following women's and PWDs' empowerment interventions, reassertion of men's control over resources, persistent male dominance in entrepreneurial roles, and tokenistic reliance on quotas underscored deeper cultural challenges. Unequal access to resources persisted due to reliance on informal financial collateral and peer guarantees.

Looking ahead, several design adaptations could strengthen future interventions.

Reflecting retrospectively, several critical design adjustments would enhance future interventions. These include deeper integration of gender-climate resilience linkages from the outset, sustained implementation support for institutional capacity, robust safeguarding measures against unintended negatives, and a broader focus on cultural and normative shifts alongside institutional representation. These adjustments would promote more enduring, transformative impacts on gender equality and social inclusion within climate-smart agricultural systems.

Inclusive participation in climate-smart agriculture: a value chain perspective from CRAFT business cases

The evaluation reviewed gender and youth participation across various business cases within the Climate Resilient Agribusiness for Tomorrow (CRAFT) project in Kenya, Uganda, and Tanzania. 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 Ruto Cooperative, women and youth remain underrepresented as service providers and entrepreneurs, largely due to structural barriers including limited land ownership and resource control. Future programming should emphasize transforming women and youth from passive beneficiaries to active value chain actors through inclusive financing, bundled CSA service delivery, and integrated gender equality and social inclusion (GESI) strategies.

Methodology:

The study uses a comparative case analysis approach, drawing from service delivery data collected by 2024/25 across multiple BCs. It examines participation trends in weather advisories, crop insurance, extension services, aggregation, improved seed access, financing, and soil testing. Service delivery was categorized into four models: embedded, brokered, signposted, and ToT-led (delivered by trained farmers). Participation was disaggregated by gender and age (youth), and cross-analyzed against the type of business (SME vs cooperative), leadership demographics, and value chain focus.

Key Findings:

- Access to Services: Women and youth accessed embedded services (e.g., extension, aggregation) more consistently than brokered or signposted services, which often required upfront costs or external facilitation. Women-led BCs (e.g., Byeffe, Starlight) had notably higher female participation.
- Financing Models Matter: Structured, gender-responsive models—such as SEBEI SACCO's peer guarantee system tied to VSLAs—enabled broader financial access for women, compared to informal or household-dependent systems like that of Starlight.
- Underrepresentation in Service Delivery Roles: Women and youth remain underrepresented as Trainers-of-Trainers and seed multipliers. Exceptions like Byeffe and Kaplomboi Ruto Cooperative illustrate that gender-focused leadership and favorable value chain contexts can support inclusion.
- Structural Barriers Persist: Services tied to land ownership (e.g., soil testing) and upfront payments remain largely inaccessible to women and youth, especially in male-led SMEs with rigid delivery structures.

Lessons & Implications:

Leadership demographics, financing design, and service delivery modes strongly influence participation. However, inclusion is not automatic; deliberate design and outreach are required. Future programming must move beyond beneficiary-focused inclusion to enabling women and youth as service providers and

business owners. This includes bundling CSA services at accessible hubs, embedding GESI principles in early design, and strengthening public-private coordination for inclusive investment.

Conclusion:

CRAFT's interventions have expanded access to CSA services among women and youth but with uneven depth. While embedded and subsidized models have shown promise, greater efforts are needed to foster entrepreneurial participation and service ownership. Scaling inclusive delivery models, like those used by SEBEI SACCO and Byeffe, and addressing systemic barriers such as land access will be critical to building equitable and climate-resilient agri-food systems.

Table 4: BC services by type of service delivery model

Service Type	Starlight (Kenya)	Kaplomboi (Kenya)	SEBEI SACCO (Uganda)	KDPGCUL (Uganda)	Byeffe (Uganda)	Kibaigwa (Tanzania)	EAF (Tanzania)	JAKMA (Tanzania)
Weather info								
Extension								
Aggregation								
Improved seed								
Financing								
Soil testing								
Spray hire								
Mechanization								
Crop insurance								
Fertilizer								
Storage								

Legend:

Embedded: Services integrated in contracts

Brokered: Independently provided, BC-negotiated

Signposted: Independently accessed, BC-promoted

ToT-led: Delivered by trained community members (ToTs)

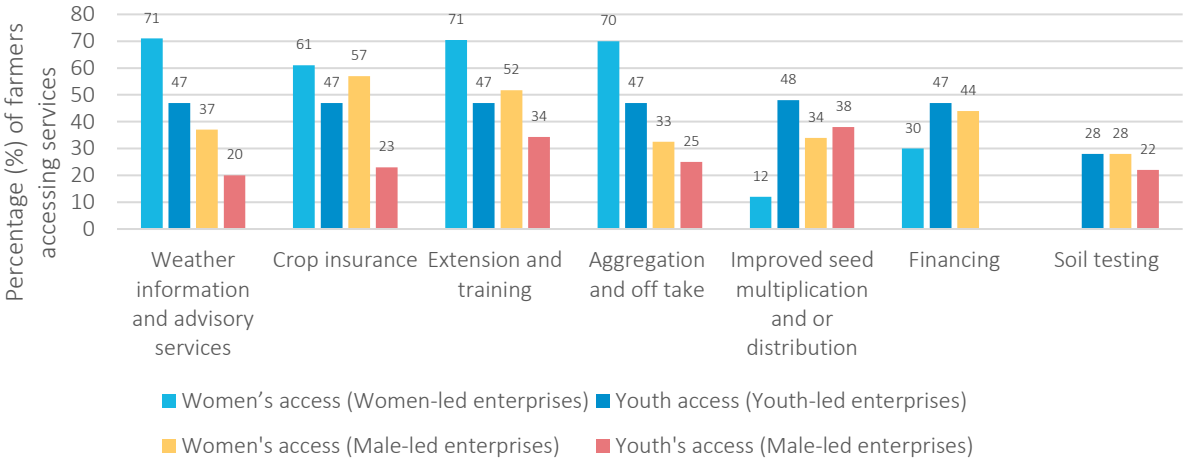

Figure 10: Gender and youth participation in CSA services by type of business leadership

Shifting Roles, Shared Gains: Gender and Youth Perspectives on Climate-Smart Agriculture in CRAFT Communities

This qualitative evaluation examined gender and youth inclusion in climate-smart agriculture (CSA) adoption across CRAFT-supported communities in Kenya, Tanzania, and Uganda. Focus group discussions and adoption data revealed significant gender and age-related differences in CSA uptake, shaped by household structure, access to resources, and decision-making power. While senior men generally adopted land-intensive practices more than women, senior women in female-headed households showed high adoption of soil-health and labor-based practices, reflecting their autonomy despite labor and capital constraints. Among youth, adoption rates were broadly similar, though young women in Uganda remained the most constrained. CSA interventions moderately shifted roles, with greater involvement of women and youth in technical and entrepreneurial tasks, but persistent inequities in labor burden, land access, and financial inclusion limited impact. Training and dissemination efforts often excluded female-headed households and youth due to scheduling and structural gaps. CSA technologies were culturally acceptable but not universally accessible, with affordability and physical suitability remaining challenges for women, youth, elderly, and persons with disabilities. Recommendations include expanding gender-responsive mechanization, inclusive financial models, tailored training, and community labor-sharing arrangements. Overall, while CSA interventions improved productivity and diversified income opportunities, structural barriers and entrenched norms continue to limit equitable participation, underscoring the need for inclusive design and sustained engagement in future programming.

Methodology

This section presents a qualitative evaluation of gender and youth inclusion in adopting climate-smart agriculture (CSA). Data collection involved focus group discussions (FGDs) across selected CRAFT business cases in Kenya, Tanzania, and Uganda. Participants were purposively selected and disaggregated into senior men, senior women, youth (male and female), and persons with disabilities (PWDs). Semi-structured FGDs explored themes including shifts in household roles, barriers and enablers to CSA adoption, accessibility and affordability of technologies, and perceived benefits. Transcribed data underwent thematic analysis to identify patterns and variations across demographics, countries, and agricultural value chains. Quantitative validation from adoption data supplemented qualitative insights.

Key Findings

Adoption Patterns by Gender and Age

Statistical analysis reveals significant gender and youth gaps in the adoption of climate-smart agriculture (CSA) technologies across different demographic groups.

Among senior men and senior women in male-headed households (MHHs), there were no significant differences in the adoption of input-intensive CSA technologies, such as improved seed, inorganic fertilizer, and herbicides. This suggests that CRAFT interventions may have helped reduce capital constraints for women in accessing these technologies. However, senior men consistently adopted more land-intensive practices than women, including agroforestry in Uganda, irrigation in Kenya, and soil testing overall. This disparity likely reflects men's greater control over land and household decision-making, which facilitates independent adoption.

In Tanzania, senior women in MHHs outperformed men in the adoption of knowledge-intensive practices, such as timely planting based on weather advisories and good agronomic practices. This may reflect women's higher participation in CSA extension and training programs. In contrast, in Uganda, men adopted timely planting practices more frequently than women, possibly due to differences in women's access to timely and usable weather information. Men also adopted post-harvest handling practices more than women at the aggregate level, highlighting the persistence of gender norms around market engagement and control over benefits.

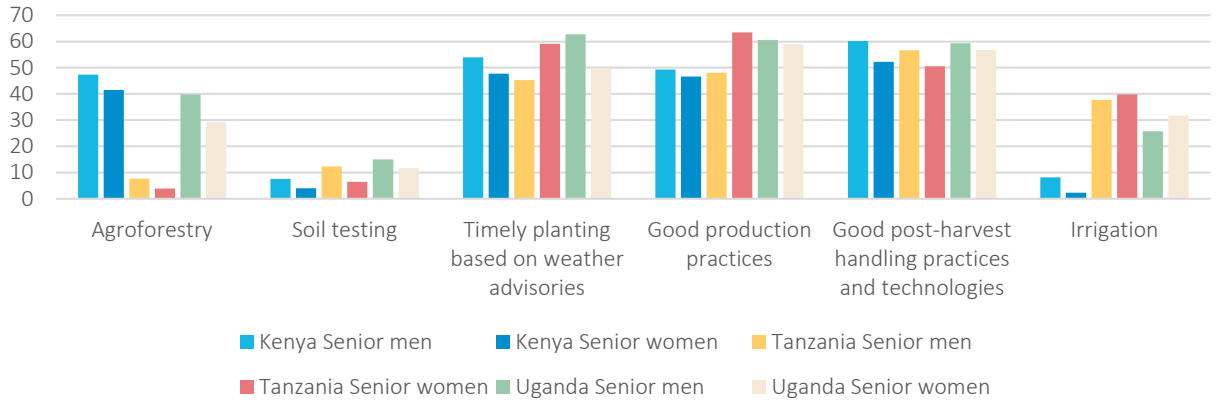

Figure 11: Adoption levels where senior men's adoption rates differed significantly from senior married women's (%).

In female-headed households (FHHs), senior women demonstrated notably high adoption rates, particularly in Uganda. Practices such as crop rotation (82.8%), organic manure application (78.6%), and timely harvesting (78.3%) were widely adopted, suggesting that greater control over land and decision-making enhanced their uptake of CSA practices despite systemic constraints like limited labor and capital. Senior women in FHHs also recorded strong adoption of mulching (64.4%), recommended line spacing (94.8%), and good agronomic practices (50%), reflecting a motivation to improve productivity and adapt to climate variability.

Nevertheless, senior men in FHHs adopted more resource-intensive technologies than women, including inorganic fertilizers, herbicides, and improved seed (particularly in Kenya, Tanzania, and overall). Men in Kenya also adopted agroforestry practices more frequently, despite the assumption that widowed women in FHHs have greater land control. Similarly, post-harvest handling was more commonly adopted by men in Kenya and overall, while in Tanzania, men adopted integrated pest management practices more than women in FHHs. Senior women's adoption of soil testing and crop insurance was higher than men's in Uganda and overall, driven primarily by targeted interventions and subsidies favoring women.

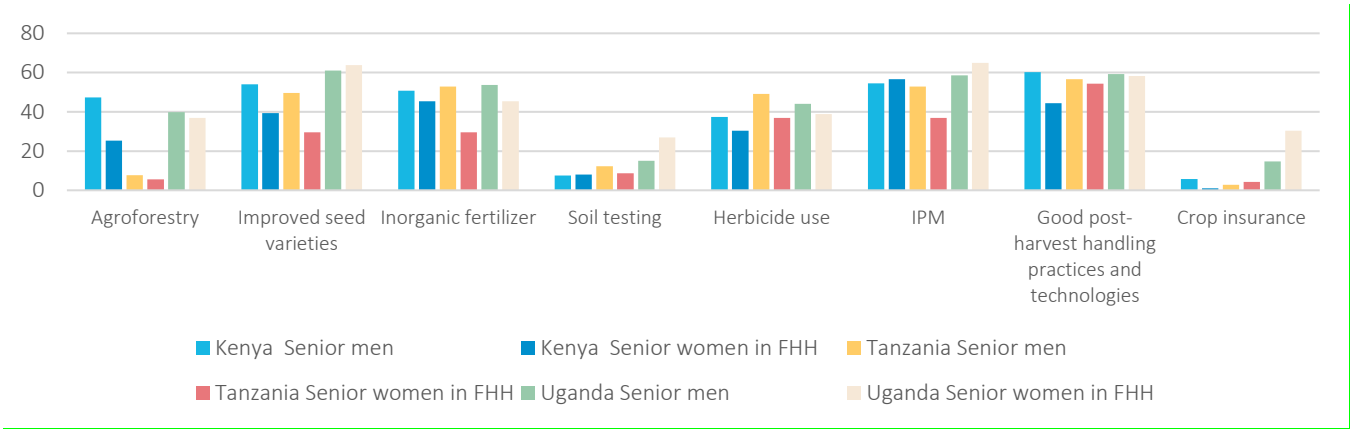

Figure 12: Adoption levels where senior men's adoption rates differed significantly from senior women in FHHs (%).

Among youth, adoption rates for CSA practices were generally comparable between young men and women at the aggregate level, except for improved seed, where young men's adoption rates were significantly higher, particularly in Uganda. Country-level differences were notable. In Uganda, young men adopted inorganic fertilizer, timely planting based on weather advisories, good agronomic practices, and post-harvest handling more frequently than young women. In Kenya, young men adopted crop insurance and irrigation at significantly higher rates.

Conversely, in Kenya, young women's adoption of good agronomic practices exceeded that of young men, and in Tanzania, more young women adopted timely planting practices. These findings align with young women's greater participation in extension and training programs. Overall, Ugandan young women appeared the most constrained, reflecting combined challenges in accessing both capital-intensive and knowledge-intensive CSA technologies.

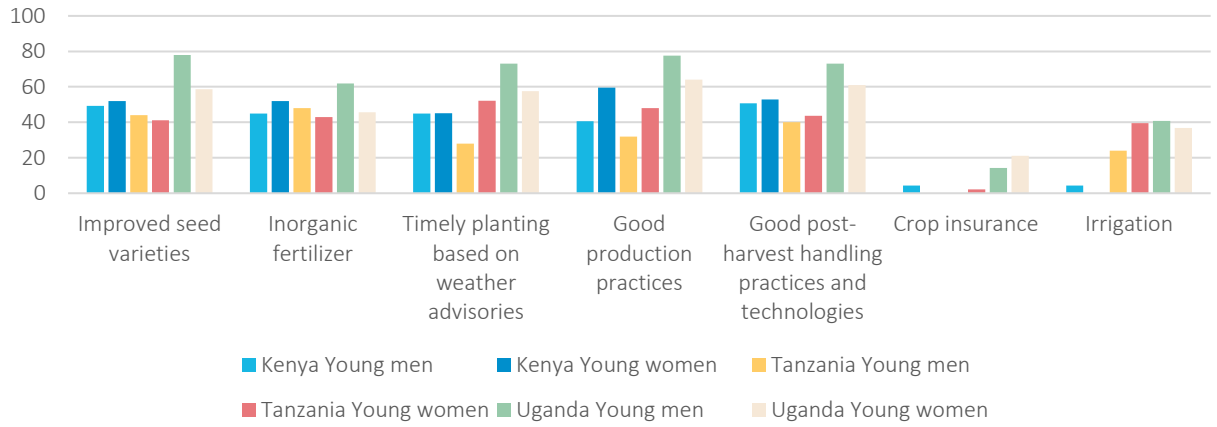

Figure 13: Adoption levels for CSA technologies were young men's adoption rates differed significantly from young women (%)

Shifts in gender and youth roles

CSA adoption moderately shifted gender and youth roles in agricultural practices. Women and youth increasingly engaged in technical tasks and cooperative activities, yet traditional labor divisions persisted. Women, especially in FHHs, faced disproportionately heavier workloads without corresponding resource control or decision-making autonomy (female youth). Youth roles expanded into technical and entrepreneurial areas (e.g., agro-input services, mechanization), yet structural limitations in land access and financial inclusion remained significant barriers. CRAFT interventions aimed at reducing workloads included promoting community support models, introducing labor-saving technologies and practices, and encouraging more equitable labor sharing. However, these interventions were implemented sporadically and not widely across the program.

CSA and income generation

CSA practices have created diverse income-generating opportunities, particularly benefiting youth through roles in service provision, technology use, and agro-enterprise activities. FHHs notably participated in value addition, agro-processing, and input supply. However, labor-saving innovations and mechanization displaced some vulnerable groups, including casual laborers, the elderly, and PWDs, highlighting a need for inclusive design.

Appropriateness and accessibility of CSA technologies

CSA technologies were generally suitable for various land sizes; however, their practical application often excluded vulnerable groups. Tasks like pesticide application, line planting, and tree pruning presented significant barriers for women, elderly, and PWDs. Youth faced financial and land-related accessibility constraints. The design and labor requirements of some CSA technologies, while adaptable technically, were not universally inclusive.

Acceptability of CSA Technologies

CSA technologies were largely culturally acceptable, with minimal direct resistance across all countries. However, indirect socio-cultural constraints such as traditional land ownership norms and misconceptions about input use (e.g., fertilizers affecting land fertility) limited uptake. Perceptions of reduced crop taste or quality occasionally emerged as barriers, especially among women responsible for household consumption decisions.

Inclusivity in training and dissemination

Training and dissemination of CSA technologies included gender and youth considerations, yet significant gaps remained, especially for FHHs and youth. Training schedules often conflicted with domestic responsibilities, limiting participation. The inclusion of female trainers positively influenced women's engagement but was inconsistent across sites. Deliberate and consistent targeting, particularly for FHHs and youth, required improvement.

Affordability and financial inclusion

Affordability was a substantial barrier to CSA adoption for youth and FHHs, constrained by limited financial resources and access to credit. Senior men and women benefited more from cooperative support

structures and established financial networks. Youth and FHHs faced disproportionate challenges in accessing inputs like improved seeds and fertilizers.

Implications and Recommendations

Implications:

- 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.
- Inclusion gaps in training and dissemination constrain full realization of CSA benefits for marginalized groups.

Recommendations:

1. Gender-responsive mechanization: Expand affordable, shared access to labor-saving technologies, specifically designed for women and youth.
2. Inclusive financial models: Develop targeted financing mechanisms, including micro-credit, group-based land leasing, and cooperative-supported input financing.
3. Strengthen community labor models: Promote communal labor-sharing practices to alleviate workload burdens on women and youth.
4. Tailored training and outreach: Utilize female trainers, flexible scheduling, child-support provisions, and youth-specific training approaches to enhance participation and inclusivity.
5. Inclusive CSA design: Adapt CSA technologies to accommodate diverse physical abilities, ensuring universal accessibility.
6. Cultural sensitization and myth-busting: Conduct targeted community sensitization to address indirect cultural barriers and misconceptions.

Conclusion

The evaluation 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. Future programming must address these systemic issues through intentional design, inclusive finance, tailored training, and continuous community engagement to ensure sustainable and equitable adoption of CSA technologies.

Understanding Men and Women's (Dis)Empowerment: Insights from SNV/CRAFT's Pro-WEAI Analysis

This chapter synthesizes findings from a Pro-WEAI analysis conducted across CRAFT-supported business cases in Kenya, Uganda, and Tanzania, examining gender and youth empowerment outcomes. The study, based on surveys with over 1,000 respondents, reveals that while overall empowerment levels are relatively high, with Pro-WEAI scores approaching 0.89 and gender parity indices near 0.97, significant disparities remain when disaggregated by gender, age, household type, and value chain. Women report equal or better outcomes than men in areas such as work balance and group participation; however, disempowerment persists for women and youth in dimensions such as autonomy in income, respect within households, decision-making input, and control over resources, particularly in specific value chains and contexts. The cooperative model appears to provide more inclusive environments than SME agribusinesses, with business case and national context strongly influencing empowerment outcomes.

1.10 Methodology

This synthesis is derived from an in-depth analysis using the Project-Level Women's Empowerment in Agriculture Index (Pro-WEAI) within SNV's Climate Resilient Agribusiness for Tomorrow (CRAFT) project. The study employed household survey data collected from 1,018 respondents (531 women and 487 men) across Kenya, Tanzania, and Uganda. Pro-WEAI evaluates gender empowerment across three domains: instrumental agency, intrinsic agency, and collective agency. Statistical analysis involved comparison of gender gaps across demographic groups (senior men/women and young men/women) and within country-specific business case contexts, with significance tested via t-tests.

1.11 Key findings

1.11.1 Gender gaps in agency by country, household type and age group

The gender gap narrowed or closed for several agency indicators, with women reporting better outcomes than men across age cohorts in areas such as work balance, group membership, and membership in influential groups. However, persistent gaps remain in other domains, reflecting the complexity of agency dynamics and the influence of household structure, age, and country context (Table 5).

Intrinsic agency

Senior men and women generally exhibited parity in autonomy over income, except in Uganda, where a significant gap persisted against senior women (-21.07%, p=0.0001). Self-efficacy was mostly equal but was significantly lower for Kenyan senior women in female-headed households (FHHs). Attitudes toward intimate partner violence (IPV) reflected troubling gender gaps: senior women in male-headed households (MHHs) in Tanzania and young women in Uganda were more accepting of IPV compared to men. Respect among household members was a pervasive area of inadequacy, with significant gaps disadvantaging senior women in Kenya, young women in Kenya and Uganda, and women in FHHs in Tanzania and Uganda.

Instrumental agency

Across all countries, senior women consistently demonstrated significantly lower input in productive decisions than senior men. This pattern also applied to young women in Kenya and Tanzania. Ownership of land and other assets was inadequate among women in FHHs across all countries, suggesting that collective

agency (e.g., group membership) did not automatically translate into individual asset ownership or control. Access to and decision-making over financial services was significantly constrained for women in FHHs in Tanzania and for young women in Uganda. Control over income use was significantly limited for women in FHHs across all three countries and for young women in Uganda. Mobility restrictions were notable among senior women in Kenya and Tanzania and among young women in Kenya.

Collective agency

In contrast, collective agency indicators showed some positive trends for women. Gender gaps in group membership and membership in influential groups were either closed or favored women in several contexts. For example, senior women reported significantly higher group participation rates, suggesting areas where women have achieved relative parity or advantage.

Country and demographic differences

Senior women in MHHs were particularly disadvantaged in decision-making across all countries, mobility in Kenya and Tanzania, respect among household members in Kenya, tolerance of IPV in Tanzania, and autonomy over income in Uganda. For senior women in FHHs, inadequacies were concentrated in ownership and control of assets and income across all countries, self-efficacy in Kenya, credit access in Tanzania, and respect in Tanzania and Uganda. Among young women, the most pronounced gaps included respect and trust in household relationships (Kenya and Uganda), tolerance of IPV (Uganda), credit access and income control (Uganda), decision-making input (Kenya and Uganda), and mobility (Kenya).

Table 5: Gender gap in agency by country and group

	Senior men vs. senior women			Senior men vs. senior women in FHHs			Young men vs. young women		
	Ke	Tz	Ug	Ke	Tz	Ug	Ke	Tz	Ug
Intrinsic agency									
Autonomy in income	0	0	↓	0	0	0	0	0	0
Self-efficacy	0	0	0	↓	0	↑	0	0	0
Attitudes about intimate partner violence against women	0	↓	0	0	0	↑	0	0	↓
Respect among household members	↓	0	0	0	↓	↓	↓	0	↓
Instrumental agency									
Input in productive decisions	↓	↓	↓	↑	0	0	↓	0	↓
Ownership of land and other assets	0	0	0	↓	↓	↓	0	0	0
Access to and decisions on financial services	0	0	0	0	↓	0	0	0	↓
Control over use of income	0	0	↑	↓	↓	↓	↑	0	↓
Work balance	↑	↑	↑	↑	↑	0	↑	0	0
Mobility/visiting important locations	↓	↓	0	0	0	0	↓	0	0
Collective agency									
Group membership	↑	0	0	0	↑	0	↑	↑	0
Membership in influential groups	0	0	0	0	↑	0	0	↑	0

Legend:

0	No significant gender gap between groups
↑	Gender gap in favour of women (women have more agency in this area than men)
↓	Gender gap against women (men have more agency in this area than women)

1.11.2 Overall empowerment levels

Overall empowerment levels were relatively high across the three countries (Pro-WEAI = 0.89), with men slightly more empowered (3DE score = 0.90; 74% empowerment) than women (3DE score = 0.88; 71% empowerment). The Gender Parity Index (GPI) was high (0.97), indicating generally small intra-household gender disparities. However, substantial gaps were evident when examining specific business cases, demographic groups and country contexts (see Table 6, 7 and 8).

Table 6: Pro-WEAI results for all respondents and by country

	Entire dataset		Kenya		Tanzania		Uganda	
Indicator	Women	Men	Women	Men	Women	Men	Women	Men
Number of observations	531	487	207	212	84	80	239	195
3DE score	**0.88**	**0.9**	**0.88**	**0.91**	**0.86**	**0.83**	**0.89**	**0.91**
Empowerment score	0.77	0.79	0.77	0.79	0.77	0.74	0.78	0.79
% achieving empowerment	0.71	0.74	0.69	0.78	0.69	0.57	0.73	0.76
Mean 3DE score for not yet empowered	0.6	0.6	0.62	0.59	0.56	0.59	0.61	0.61
Gender Parity Index (GPI)	**0.97**		**0.96**		**0.97**		**0.97**	
Number of dual-adult households	399		176		59		164	
% achieving gender parity	0.81		0.77		0.85		0.85	
Average intra-household inequality score	0.02		0.03		-0.01		0.02	
Empowerment gap	0.18		0.17		0.23		0.18	
Pro-WEAI	**0.89**		**0.89**		**0.87**		**0.9**	

Starlight cooperative, Kenya in the potato value chain had the highest pro-WEAI score while the least score was from JAKMA, Tanzania in the sunflower value chain (Figure 10). The discernible trend is that the cooperative structure appears to provide a more empowering environment for men and women than the agribusiness SME model.

Figure 14: Potato value chain from Starlight

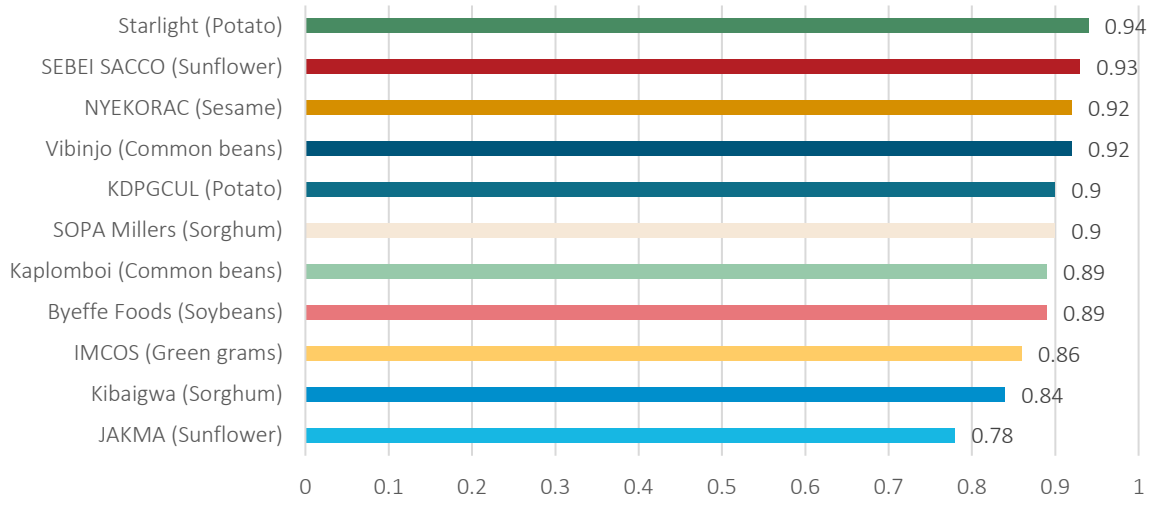

Figure 15: pro-WEAI scores by business case/value chain

Overall, business cases in Kenya had the highest percentages achieving empowerment including Starlight, SOPA Millers and Kaplomboi, with a good balance across men and women (Figures 11 and 12). In Tanzania, while the bean business case (Vibinjo) showed success (Pro-WEAI 0.92, with 78% of women empowered), **sunflower and sorghum value chains** in Tanzania may require **targeted interventions** due to lower inclusion and structural barriers. **JAKMA (sunflower)** has the lowest female empowerment at 53%, and the largest empowerment gap (0.3). **In Uganda, SEBEI SACCO (sunflower)** shows the highest Pro-WEAI score (0.93), with 82% of women empowered. **KDPGCUL (potato)** also performs well, especially among male youth (92% empowerment), while **BYEFFE (soybeans)** shows slightly below average female empowerment (72%) but performs well on youth.

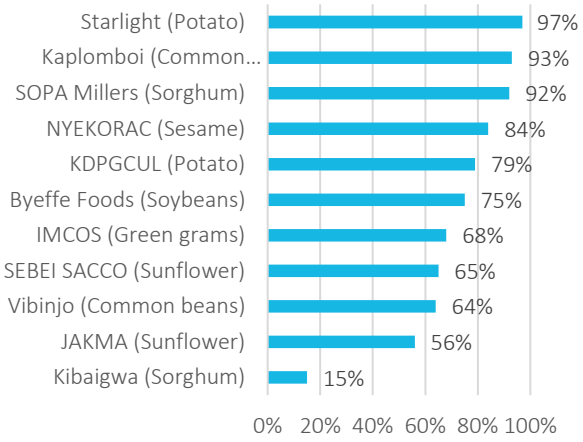

Figure 16: percentage of men achieving empowerment by business case/value chain

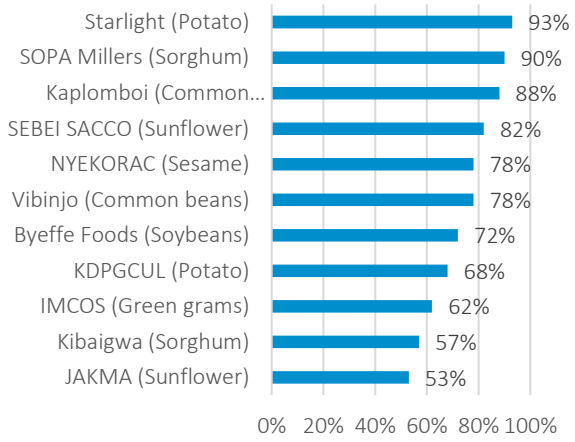

Figure 17: percentage of women achieving empowerment by business case/value chain

Table 7: pro-WEAI results for senior men and women by country, and business case/value chain

	IMCOS (Green grams)		Kaplomboi (Common beans)		SOPA Millers (Sorghum)		Starlight (Potato)		JAKMA (Sunflower)		Kibaigwa (Sorghum)		Vibinjo (Common beans)		Byeffe Foods (Soybeans)		KDPGCUL (Potato)		NYEKORAC (Sesame)		SEBEI SACCO (Sunflower)	
Indicator	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**
Number of observations	44	47	41	49	37	47	18	20	12	21	15	14	15	12	50	48	51	46	30	37	23	13
3DE score	**0.84**	**0.84**	**0.89**	**0.94**	**0.87**	**0.92**	**0.91**	**0.96**	**0.71**	**0.9**	**0.84**	**0.65**	**0.92**	**0.85**	**0.85**	**0.9**	**0.9**	**0.91**	**0.93**	**0.93**	**0.92**	**0.87**
Empowerment score	0.73	0.73	0.75	0.8	0.79	0.82	0.82	0.85	0.74	0.8	0.73	0.61	0.8	0.72	0.75	0.78	0.8	0.79	0.79	0.8	0.87	0.79
% achieving empowerment	0.59	0.64	0.68	0.84	0.68	0.81	0.78	0.9	0.42	0.6	0.6	0.14	0.8	0.67	0.64	0.75	0.7	0.76	0.8	0.84	0.83	0.62
Mean 3DE score for not yet empowered	0.61	0.56	0.64	0.65	0.59	0.56	0.6	0.58	0.5	0.7	0.61	0.59	0.58	0.56	0.58	0.58	0.6	0.61	0.65	0.6	0.54	0.65
Gender Parity Index (GPI)	**0.96**		**0.96**		**0.96**		**0.97**		**0.92**		**0.98**		**0.96**		**0.96**		**1**		**0.99**		**0.98**	
Number of dual-adult households	45		43		38		18		13		11		11		44		39		29		12	
% achieving gender parity	0.81		0.69		0.71		0.8		0.71		0.91		0.82		0.79		0.8		0.92		0.9	
Average intra-household inequality score	0.01		0.03		0.04		0.04		0.15		-0.1		-0.07		0.03		0		0		-0.07	
Empowerment gap	0.23		0.13		0.16		0.17		0.28		0.22		0.22		0.19		0.1		0.11		0.22	
Pro-WEAI	**0.85**		**0.89**		**0.88**		**0.92**		**0.73**		**0.86**		**0.92**		**0.86**		**0.9**		**0.94**		**0.93**	

Table 8: pro-WEAI results for youth by country, and business case/value chain

	IMCOS (Green grams)		Kaplomboi (Common beans)		Kibaigwa (Sorghum)		Byeffe Foods (Soybeans)		KDPGCUL (Potato)		NYEKORAC (Sesame)	
Indicator	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**
Number of observations	21	19	27	21	8	6	26	15	18	12	16	14
3DE score	**0.87**	**0.91**	**0.87**	**0.9**	**0.78**	**0.6**	**0.96**	**0.9**	**0.91**	**0.97**	**0.88**	**0.94**
Empowerment score	0.77	0.8	0.75	0.79	0.65	0.56	0.82	0.82	0.78	0.85	0.78	0.8
% achieving empowerment	0.67	0.79	0.67	0.71	0.5	0.17	0.88	0.73	0.72	0.92	0.75	0.86
Mean 3DE score for not yet empowered	0.62	0.56	0.62	0.64	0.56	0.52	0.61	0.63	0.67	0.67	0.5	0.58
Gender Parity Index (GPI)	**0.96**		**0.96**		**0.94**		**0.97**		**0.98**		**0.97**	

Number of dual-adult households	15		19		6		14		12		12	
% achieving gender parity	0.8		0.74		0.67		0.86		0.83		0.92	
Average intra-household inequality score	0.06		0.03		-0.1		0.01		0.06		0.03	
Empowerment gap	0.22		0.16		0.18		0.22		0.11		0.33	
Pro-WEAI	**0.88**		**0.88**		**0.8**		**0.96**		**0.91**		**0.88**	

1.11.3 Drivers of disempowerment by country and gender

As part of the Pro-WEAI analysis, disempowerment scores were decomposed across 12 empowerment indicators to assess the contribution of each indicator to overall disempowerment. This analysis covered all participating business cases across Kenya, Uganda, and Tanzania (see Fig 14 and 15). Given the variation in contributors across contexts, detailed results are presented at the business case level in the full report.

Figure 13 presents a heat map summarizing the frequency with which each indicator ranked among the top four contributors to disempowerment for different age and gender groups across all business cases. The analysis reveals distinct patterns.

For senior men, key drivers of disempowerment include inadequate autonomy in income, low self-efficacy, limited membership in influential groups, challenges with respect among household members, and problematic attitudes toward intimate partner violence (IPV). Among senior women, contributors mirror these trends but with greater emphasis on limited access to and decisions over credit.

For young men, major contributors to disempowerment are inadequacies in autonomy in income, respect among household members, self-efficacy, attitudes toward IPV, control over income, work balance, and group membership. Young women face disempowerment primarily due to low self-efficacy, lack of respect among household members, limited control over income, and restricted membership in influential groups.

These findings highlight that while some drivers of disempowerment are common across groups such as autonomy in income, self-efficacy, and respect within households; others, like access to credit and membership in groups, vary by gender and age cohort.

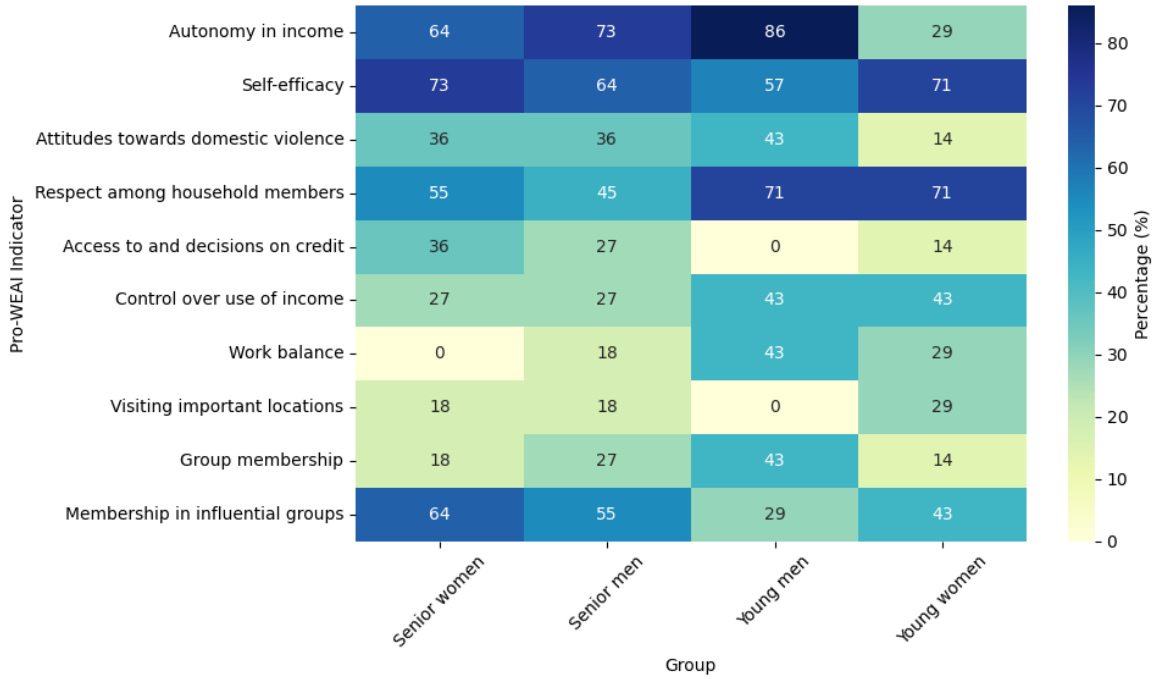

Figure 18: The four major contributors to the disempowerment score by frequency of mention across seniors and youth by gender (%)

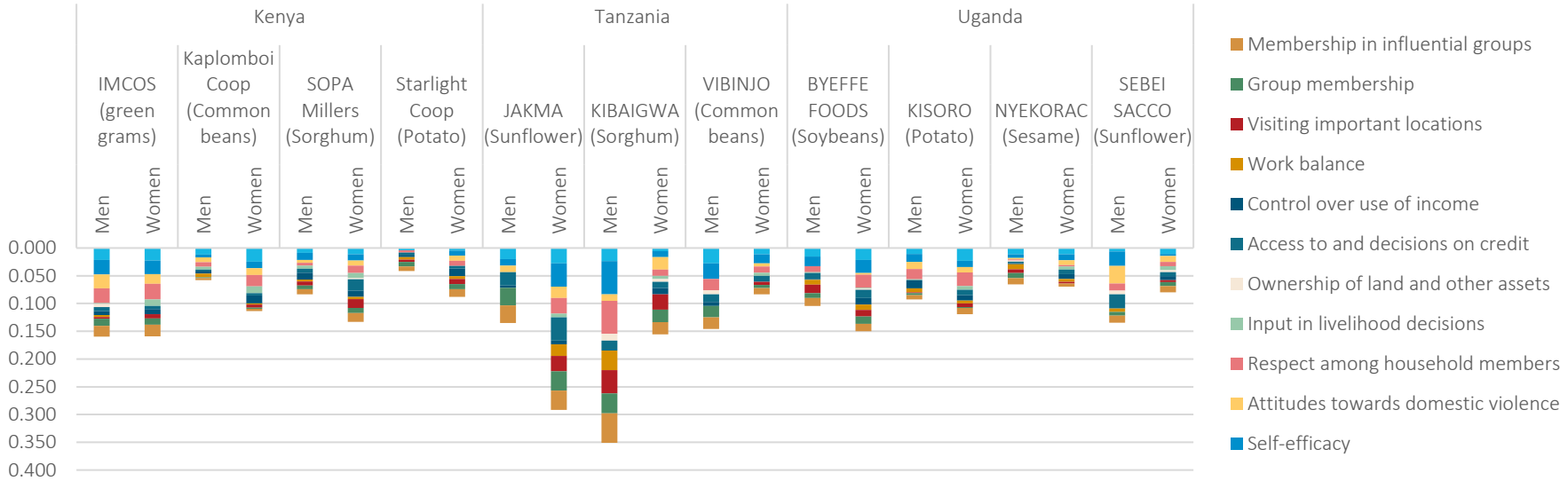

Figure 19: Percentage contribution to the disempowerment score (%) for all senior respondents by country and business case/ value chain

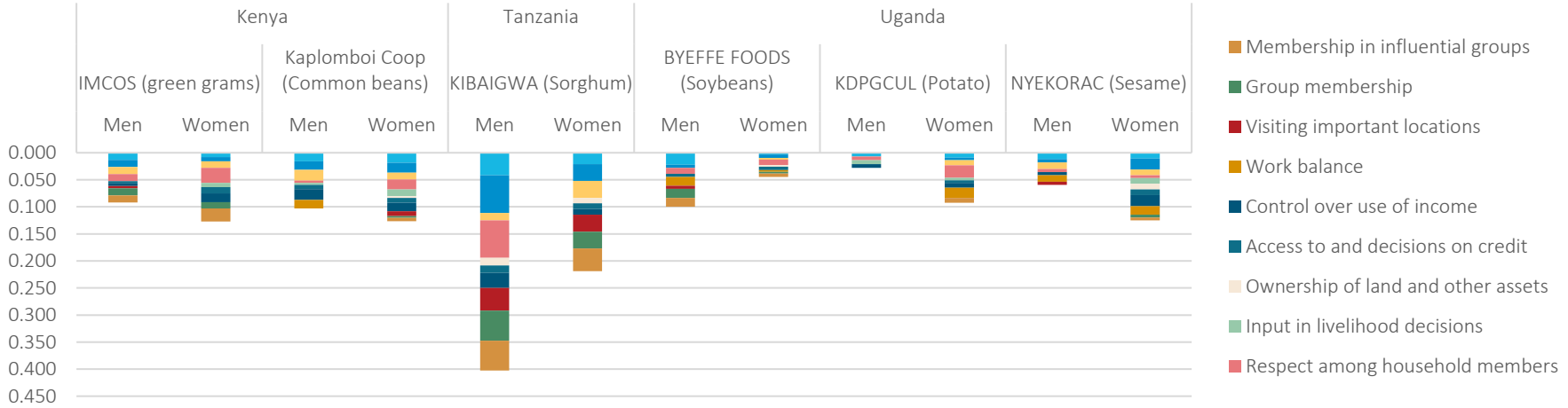

Figure 20: Percentage contribution to the disempowerment score (%) for all youth respondents by country and business case/ value chain

1.12 Implications

1. **Business case matters**: 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.
2. **Youth perform well**: Youth, especially in Uganda and Kenya, often report **higher 3DE and Pro-WEAI scores** than senior groups, indicating that **younger cohorts may be benefiting more from interventions** or are more open to change.
3. **Gender disparities persist**: Despite overall progress, gaps in **empowerment achievement and intra-household equality** remain, particularly in **Tanzania's sorghum and sunflower** value chains and Kenya's **green gram** value chain.
4. **Targeted support needed**:
    - **Underperforming chains** (e.g., IMCOS, JAKMA, KIBAIGWA) may need customized support, such as **women-focused training, market access, or governance reforms**.
    - High-performing cases (e.g., Starlight, SEBEI, VIBINJO) can be used as **learning models.**
5. **Importance of context**: national averages mask **important subnational differences**; highlighting the need for **tailored interventions by business model, region, and demographic group**.
6. **Social and institutional disempowerment matters**: Membership in groups and social respect are **non-material but deeply impactful barriers**, especially for women and youth. Interventions must go beyond assets and consider **social capital and influence**.
7. **Respect and household dynamics**: Respect among household members emerges as a top issue, Gender-transformative programming that **challenges norms and promotes shared decision-making and benefit sharing** is critical.

1.13 Recommendations for Programming

Future programming should prioritize tailored, context-specific strategies that address the unique empowerment challenges faced by women and youth within individual value chains and business cases. In addition to enhancing autonomy, self-efficacy, and financial inclusion, interventions should systematically address underlying household dynamics, social norms, and respect within families. Particular attention should be given to the intersection of gender and age, recognizing that young women face distinct and compounded barriers. Programs should leverage successful models such as high-performing cooperatives for peer learning and embed gender-transformative approaches that challenge inequitable norms while strengthening inclusive governance and institutional structures. Finally, investing in social capital—through strengthened group membership, leadership opportunities, and influence in community structures—will be essential for sustaining equitable empowerment outcomes.

Conclusion

The Pro-WEAI analysis provides crucial insights into the multidimensional nature of empowerment among men, women, and youth within the CRAFT project. Despite relatively high overall empowerment scores, significant gender and demographic disparities remain, emphasizing the necessity of targeted and context-specific interventions. Effective future programming requires a shift from generalist strategies towards nuanced approaches, addressing unique disempowerment drivers within each context and demographic group. Strengthening collective institutions, promoting household equity, facilitating financial inclusion, and empowering youth will be fundamental to achieving sustainable and equitable empowerment outcomes in agricultural value chains.

SNV CRAFT Business Champion Agency: Governance, Training, and Perceptions on Gender and Leadership

Methodology

This synthesis summarizes findings from structured interviews and qualitative data collected from several agribusiness SMEs and cooperatives supported by SNV's Climate Resilient Agribusiness for Tomorrow (CRAFT) program in Kenya, Uganda, and Tanzania. Data were gathered through key informant interviews (KIIs) with business leaders, focusing on governance structures, leadership training and capacity building, access to credit, business growth goals, market positioning, and shifting gender perceptions. The analysis combined qualitative insights with structured responses to reveal trends, gaps, and opportunities in leadership, management, and institutional development.

Key Findings

Governance and Decision-Making

All interviewed agribusiness SMEs and cooperatives demonstrated functional governance structures, predominantly committee-based. Decision-making satisfaction varied from moderate to high (Figure 10), correlating closely with board responsiveness and capacity. The cooperatives such as IMCOS, Sebei SACCO and Starlight Cooperative benefited from external capacity-building support from entities like Agriterra and governmental ministries. However, common governance challenges identified included slow decision-making processes, risk aversion (notably at SEBEI SACCO and IMCOS), and limited technical expertise among board members, particularly at KDPGCUL.

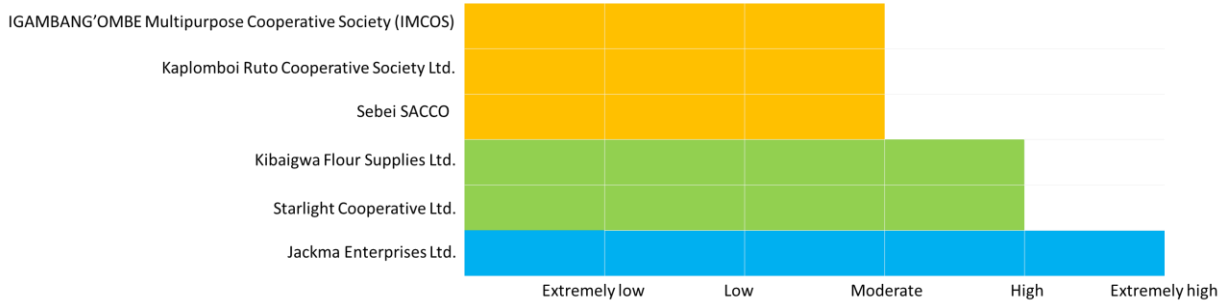

Figure 21: CEO satisfaction with Board decision-making

Leadership Training and Development

Training strategies ranged from formal corporate training plans in organizations like SEBEI SACCO and Starlight Cooperative to informal, ad-hoc approaches at KDPGCUL. Generally, business leaders reported moderate to high access to relevant training, with high satisfaction noted by leaders at Starlight Cooperative. Identified training needs included financial management, fundraising and proposal writing, market research, and market sourcing.

Access to Credit

Access to credit varied significantly. SEBEI SACCO focused on internal capitalization through member contributions, choosing not to seek external credit. IMCOS reported moderate access with frequent inadequacies, primarily due to collateral constraints, complex lending procedures, and member hesitancy. Conversely, Starlight Cooperative reported favorable access in terms of availability, adequacy, and affordability. Notably, challenges around collateral security and lengthy loan processes were pervasive.

Business Growth Goals and Progress

Business champions expressed strong capacity to achieve growth objectives, despite facing contextual challenges. Starlight Cooperative targeted expansion into certified potato seed production and land acquisition. SEBEI SACCO aimed to diversify commodity value chains to include rice and increase membership. IMCOS sought to upgrade its electric connection and obtain physical space to operationalize its value-addition facilities. Common obstacles included unreliable seed varieties and inadequate irrigation solutions, which threatened the achievement of strategic goals.

Market Research and Business Positioning

Structured market research remained limited, with few enterprises significantly enhancing their market intelligence activities since the program's inception. Businesses such as Starlight, conducting regular market research, were better positioned to align operations with market demand, identifying new business opportunities in dairy and certified seeds. Opportunities highlighted across enterprises included product line expansions (e.g., sorghum, rice, dairy), certified seed production tailored to market demands, and readiness for staple crop exports.

Shifts in Perceptions on Women in Leadership

Six years into SNV/CRAFT implementation, there is evidence of evolving attitudes towards women's roles in leadership. A small but indicative sample revealed decreased support for gender-essentialist stereotypes that associate leadership competency solely with masculinity. Most respondents rejected the notion that men are inherently better business leaders, although some neutral or affirming attitudes persisted.

Regarding perceptions that women's business participation negatively impacts child welfare, responses indicated continued ambivalence or neutrality, reflecting persistent cultural narratives despite evidence demonstrating positive child outcomes linked to women's economic empowerment. This highlights the ongoing need for targeted advocacy and awareness-raising.

Implications and Recommendations

Implications:

- 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 attitudes but underscores enduring socio-cultural barriers.

- Continued institutional and infrastructural constraints, especially around credit access and market intelligence, limit business growth.

Recommendations:

1. Enhance governance capacities through targeted training for board and management teams, emphasizing strategic foresight and technical skills.
2. Develop tailored financial solutions with lower collateral requirements, potentially supported by guarantee mechanisms.
3. Institutionalize formal gender and youth inclusion policies with clear action plans to reinforce organizational commitments.
4. Strengthen capacities for systematic market research and intelligence-sharing among cooperatives and SMEs.
5. Promote peer-learning networks and collaborative forums for shared knowledge, capacity-building, and advocacy.

In conclusion, while significant strides have been made under SNV/CRAFT 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.

Figure 22: A woman farmer sorting sunflower harvest

Institutionalizing Inclusion: GESI commitments in CRAFT-supported agribusinesses

As gender equality and youth inclusion become recognized as strategic priorities for sustainable agribusiness, integrating Gender Equality and Social Inclusion (GESI) principles into institutional frameworks becomes essential. The Climate Resilient Agribusiness for Tomorrow (CRAFT) project, implemented across Kenya, Uganda, and Tanzania, provides a critical opportunity to examine how agribusiness enterprises operationalize these principles. This synthesis assesses the extent to which CRAFT-supported businesses have institutionalized GESI through formal structures such as policies, strategies, budgets, and internal organizational systems.

Methodology

The assessment employed a qualitative research approach focusing on GESI institutional integration. A comprehensive checklist guided by international best practices was contextualized to East African agribusiness environments, covering five primary domains: vision and strategy, internal policies and guidelines, organizational structures and roles, systems and procedures, and budgetary/resource allocations. Data collection comprised key informant interviews (KIIs) with senior management from a purposive sample of CRAFT-supported business cases, specifically Starlight Cooperative (Kenya), Sebei SACCO (Uganda), JAKMA (Tanzania), and Kibaigwa (Tanzania). Although an extensive review of company policies was not feasible due to time and access constraints, self-reported perceptions and practical examples gathered during interviews provided a robust analytical foundation.

Key Findings

Vision and Strategy

A majority of businesses demonstrated some level of GESI commitment within strategic frameworks. Notably, Starlight Cooperative and JAKMA showed robust integration, explicitly referencing vulnerable community members and embedding gender-sensitive practices into human resource decisions and governance structures. Conversely, Sebei SACCO exhibited limited integration, with GESI considered a minor topic lacking detailed Key Performance Indicators (KPIs) or measurable indicators. This gap highlights a broader need for capacity-building efforts to move beyond rhetoric towards measurable operationalization of inclusive strategies.

Internal Policies and Guidelines

There was significant variation in policy development and implementation. Starlight Cooperative presented the most comprehensive documentation, including HR manuals, governance guidelines, codes of conduct, and a board resolution detailing clear actions on gender action. In contrast, Sebei SACCO maintained fragmented documentation, notably lacking specific policies on safeguarding, workplace discrimination, and health and safety, though acknowledging their necessity. The presence and comprehensiveness of GESI policies correlated positively with organizational maturity and women-led business leadership.

Organizational Structures and Roles

Organizational inclusivity structures were most effective when explicitly designed to ensure diversity. Nearly all cooperatives had robust structures with clear representation of women and youth in board positions, supported by intentional election procedures for geographic and gender balance. The existence of a Women's and Youth Council with board representation further enhanced structural inclusivity. In addition, Sebei SACCO had informal consideration of GESI in service provider selection but lacked formal accountability mechanisms or dedicated staffing structures, presenting a risk of tokenistic rather than transformative action. Strengthening these structures, even informally as advisory groups, is recommended for entities lacking formal representation systems, including the SME - Kibaigwa.

Systems and Procedures

Effective institutionalization is best indicated by inclusive everyday operational procedures, including recruitment, harassment prevention, and performance management systems. Starlight Cooperative had exemplary systems, implementing tribal and gender-balanced recruitment, job flexibility, maternity leave, and proactive workplace harassment procedures. A practical example involved swift and decisive action against harassment incidents. Sebei SACCO, although less formalized in systems like flexible work arrangements or mental health support, demonstrated strong anti-harassment commitments embedded within employee manuals and audit practices. Such systems, when effectively implemented, significantly reduce institutional risks and foster trust.

Budgeting and Resource Allocation

All business cases reported allocating resources to GESI; however, explicit budgeting or systematic financial tracking was notably absent. Starlight Cooperative incorporated GESI budgets under broader categories, while Kibaigwa and JAKMA showed moderate but undefined resource commitments. Sebei SACCO exhibited minimal transparency, complicating measurement and scaling of successful inclusion initiatives. This reveals a clear need for improved financial accountability and transparency regarding GESI resource allocation.

Capacity Building for GESI Integration

Effective institutionalization relies significantly on continuous capacity-building initiatives. The capacity-building landscape across CRAFT-supported businesses was mixed. Starlight Cooperative exhibited informal but ongoing GESI learning through coaching, welfare groups, and councils. Sebei SACCO openly acknowledged gaps in GESI training and requested external support. JAKMA undertook formal, consultant-led training focused on gender policy review, yet remained at a moderate institutional understanding level. Kibaigwa had inclusive policies but no structured capacity-building efforts, indicating limited staff expertise. This underscores the critical role of sustained peer-led learning and formal capacity-building programs.

Implications and Recommendations

Immediate Implications for CRAFT:

- 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.

- Capacity building and systematic follow-ups are necessary to reinforce policy adoption and operationalization.

Immediate Recommendations:

1. **Technical Assistance:** Provide tailored support for enterprises lacking comprehensive GESI policies (Sebei SACCO, Kibaigwa) to integrate simplified, context-specific guidelines into strategic plans.
2. **Leadership Coaching:** Implement targeted coaching for board members and management to deepen practical understanding and effective implementation of GESI principles.
3. **Standardized Templates:** Disseminate simplified templates for critical areas such as safeguarding, harassment prevention, and inclusive recruitment to streamline policy adoption.
4. **GESI Champions Training:** Identify and capacitate internal champions within lagging business cases to advocate and oversee GESI implementation.
5. **GESI Clinics:** Establish regular virtual or in-person support sessions (GESI clinics) for real-time troubleshooting and guidance from SNV or peer entities.
6. **Toolkit Distribution:** Circulate simplified, visually-oriented training materials for ongoing staff reference beyond project timelines.

Future Programming Recommendations:

- Institutionalize structured GESI learning pathways within employee onboarding, ongoing training, and performance evaluations.
- Develop a digital knowledge-sharing platform accessible via mobile devices, providing ongoing GESI resources, case studies, and implementation guides.
- Facilitate peer exchange forums or learning circles at regional or national levels, fostering collaborative learning and best-practice sharing among agribusiness entities.

Conclusion

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.

Effectiveness of GESI Interventions in CRAFT Project: Baseline and End-line Analysis

This report assesses the effectiveness of Gender Equality and Social Inclusion (GESI) interventions within the CRAFT project, focusing on participation in value chains, leadership and voice, and shifts in inter-household power relations. A comparative analysis between baseline and end-line outcomes provides insights into the impacts of the interventions.

1.14 Participation in value chains

Baseline data indicated significant gender disparities in service access, with men initially benefiting more than women and youth across most services. At the end-line, notable changes occurred, reflecting improved inclusivity in several service areas:

- Seed and Inputs Distribution: Women's access decreased significantly (43.2% to 23.0%), indicating potential implementation gaps or constraints. Youth access, however, improved markedly (25.5% to 43.0%).
- Soil Testing: Little change occurred from baseline to end-line, suggesting persistent barriers or limited attention to this service.
- Weather Information: Marked improvement in accessibility was recorded (from 0% to 54% for women and 33.5% for youth), demonstrating the successful introduction of tailored information services.
- Insurance: Women's access significantly increased (40% to 59%), highlighting successful gender-targeted efforts.
- Financial Services: Increased for men (44.6% to 63%) and youth (25.9% to 47%), but decreased for women (52.1% to 37%), suggesting uneven benefits across groups.
- Training and Extension Services: Significant gains were recorded for women (47.8% to 62.0%) and youth (31.8% to 40.5%), demonstrating effective inclusive training strategies.

1.15 Leadership and voice

Despite some improvements, the overall influence, leadership, and voice metrics remained low across countries and cohorts, with only 25% indicating strong influence and 24% reporting leadership positions. Senior men consistently reported higher levels of influence, leadership, and voice compared to senior women in male-headed households (MHH). Senior women in female-headed households (FHH) showed parity with senior men, except in Kenya. Youth outcomes varied, with young women in Tanzania experiencing slightly better outcomes, while young men in Kenya and Uganda had significantly higher leadership roles and voice perceptions.

1.16 Inter-household power relations

Analysis using the Pro-WEAI indicators at baseline and end-line revealed significant positive shifts:

- Control over Income: Notable gains among adult women (69% to 86%) and young women (55% to 74%).

- **Input into Productive Decisions:** Considerable improvement for all groups, particularly young women (49% to 91%) and adult women (58% to 83%).
- **Ownership of Land and Assets:** Dramatic increase across all cohorts, notably adult women (63% to 91%) and young women (50% to 92%).
- **Financial Services Decisions:** Significant advancements, particularly among women (36% to 72%) and young women (27% to 77%).
- **Work Balance:** Improvements for adult women (42% to 87%) and young women (46% to 87%) were substantial, indicating successful efforts in reducing women's workloads.
- **Group Membership:** Modest improvements indicate strengthened collective agency, particularly among adult and young women (both increasing to 87%).

The 3DE (Three Domains of Empowerment) scores highlighted general increases in empowerment at end-line, with notable reductions in disempowerment scores. For example, the percentage of women achieving empowerment increased from 38% to 71%, demonstrating significant progress attributable to GESI interventions.

1.17 Conclusions and Recommendations

CRAFT's GESI interventions demonstrated clear effectiveness in enhancing women's and youth's participation, access to key services, and improving intra-household empowerment indicators. However, persistent gender disparities in leadership and decision-making, uneven service uptake, and unintended negative consequences such as reduced access for women in some services highlight areas for further intervention. Future programming should sustain tailored and adaptive support mechanisms, reinforce leadership capacity-building for women and youth, and address structural and cultural barriers to ensure equitable and sustainable outcomes.

Figure 23: Meetings during the GESI FGDs

Lessons Learnt and Recommendations

This chapter synthesizes the lessons learnt from the implementation of the CRAFT program and its gender equality and social inclusion (GESI) approach, with a focus on climate-smart agriculture (CSA) interventions in Kenya, Uganda, and Tanzania. It draws on diverse experiences and findings to highlight what has worked, persistent challenges, and areas where further progress is needed. The chapter also presents tailored recommendations for key stakeholders; policymakers, extension departments, donors, and agribusinesses with the aim of supporting more inclusive, equitable, and sustainable CSA programming that addresses the needs of women, youth, and persons with disabilities (PWDs).

1.18 Lessons learnt

The CRAFT program has demonstrated that integrating gender equality and social inclusion (GESI) into climate-smart agriculture (CSA) interventions enhances adoption, productivity, and resilience among marginalized groups. Several key lessons emerge:

- Deliberate design matters: Women- and youth-led enterprises and cooperatives performed better in fostering inclusive participation, illustrating that leadership demographics influence equity outcomes.
- Access alone is insufficient: Structural barriers such as land ownership, financing constraints, and intra-household decision-making dynamics continue to limit equitable empowerment despite improved service delivery.
- Social norms remain a binding constraint: Respect within households and attitudes towards gender-based violence persist as major drivers of disempowerment, underscoring the need for gender-transformative approaches.
- Tailored service delivery models work: Embedded and bundled services, community labor-sharing arrangements, and gender-responsive financial models (e.g., VSLA-linked credit) proved effective in expanding inclusion.
- Inclusivity must extend beyond farmers: Women, youth, and persons with disabilities (PWDs) remain underrepresented as service providers and entrepreneurs in CSA value chains, highlighting a persistent gap.
- Design and accessibility gaps persist for PWDs: Many CSA technologies and practices are not adequately tailored for the physical needs and participation of PWDs, limiting their full inclusion.

1.19 Recommendations

For Policy Makers:

Policy frameworks must explicitly mandate gender, youth, and disability inclusion as cross-cutting priorities in agricultural policy and climate adaptation strategies. This includes:

- Strengthening land tenure reforms to enhance secure access to productive resources for women, youth, and PWDs.
- Institutionalizing gender- and disability-responsive budgeting in agricultural development plans.

- Promoting gender- and disability-transformative behavior change communication at community and institutional levels.

For Extension Departments:

- Redesign extension services to ensure inclusivity, including flexible training schedules, recruitment of female and disabled extension agents, and use of peer trainers from underrepresented groups.
- Embed CSA training curricula with gender-, youth-, and disability-specific modules to build knowledge and reduce entry barriers.
- Facilitate decentralized service hubs that integrate inputs, finance, technical assistance, and accessibility considerations for women, youth, and PWDs.

For Donors:

- Prioritize funding models that embed GESI objectives, including disability inclusion, into all stages of program design, implementation, and monitoring.
- Support scaling of successful inclusive CSA innovations, ensuring that interventions address the needs of women, youth, and PWDs.
- Require collection and reporting of sex-, age-, and disability-disaggregated data as a condition for funding to ensure accountability and measure impact.

For Agribusinesses:

- Institutionalize internal GESI policies that explicitly recognize PWDs, ensuring inclusive governance structures, anti-harassment measures, workplace accessibility, and equal opportunity employment practices.
- Develop structured leadership pipelines for women, youth, and PWDs within cooperatives and SMEs.
- Design financial products tailored to women, youth, and PWDs, including reduced collateral requirements, peer guarantee systems, and embedded finance in value chains.
- Promote inclusivity in service delivery roles, ensuring women, youth, and PWDs are engaged not only as beneficiaries but also as trainers, aggregators, and service providers.

1.20 Conclusion:

CRAFT's experience underscores that gender, youth, and disability inclusion are not only ethical imperatives but also practical strategies for sustainable, climate-resilient agricultural systems. Future programming must embed GESI comprehensively at policy, institutional, and operational levels, leveraging tested models while addressing persistent socio-cultural and structural barriers. By investing in inclusivity across the value chain—from policy frameworks to service delivery, enterprise governance, and technology design—stakeholders can drive systemic, equitable transformation in agricultural development.


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