



FINGER MILLET

SOCIAL AND BEHAVIOUR CHANGE AND COMMUNICATION STRATEGY

FOR ENHANCING ACCESS TO AND USE OF QUALITY FINGER
MILLET SEED OF IMPROVED VARIETIES THROUGH YOUTH AND
WOMEN QUALITY CENTRES IN BUSIA COUNTY, KENYA.



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ACRONYMS

CBCC	Centre for Behaviour Change and Communication
CIMMYT	International Maize and Wheat Improvement Centre
FAOSTAT	Food and Agriculture Organization Statistics
GDP	Gross Domestic Product
GAP	Good Agronomic practices
KEPHIS	Kenya Plant Health Inspectorate Service
KALRO	Kenya Agricultural and Livestock Research Organization.
SBC	Social and Behaviour Change
YWQC	Youth and Women Quality Centres

EXECUTIVE SUMMARY

Background: Kenya's agricultural sector plays a pivotal role in the nation's economy, employing approximately 60% of the total labor force, in which smallholder farmers constitute the majority of agricultural producers, contributing significantly to the sector's output. The sector serves as a crucial source of food security and income generation for millions of Kenyans, highlighting its importance in ensuring the nation's socioeconomic development. The agricultural industry not only sustains livelihoods but also serves as a key driver of the country's GDP, contributing to approximately 25% of the country's GDP, highlighting its substantial impact on the overall economic landscape.

Despite the sector's contribution to the country's economy, the sector faces barriers hindering agricultural productivity and food security. These barriers include lack of access to agricultural information, limited access to quality seeds, agro-inputs and limited market access.

The project Enhancing Access to and Use of Quality Finger Millet Seed of Improved Varieties Through Youth and Women Quality Centres in Busia County, Kenya, confronts the persistent challenge of limited access to quality seed of improved varieties.

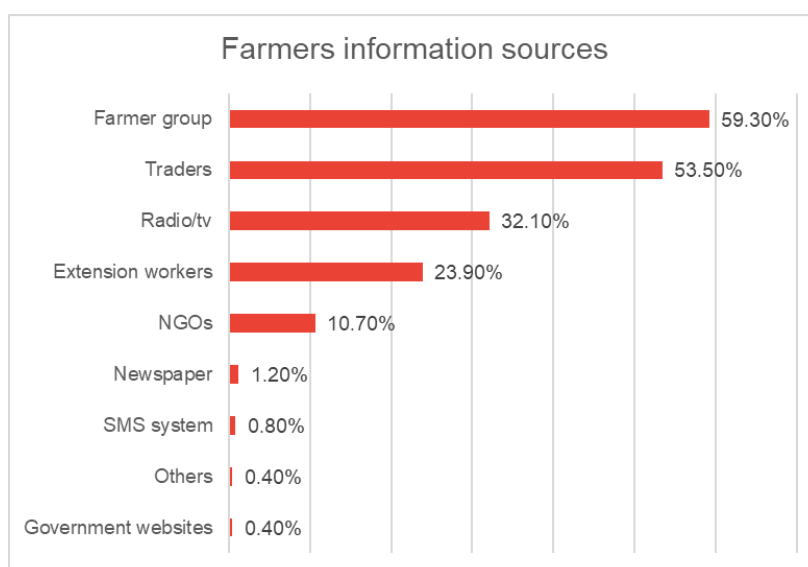
About the Initiative: Using lessons learnt from the Tanzania project on sorghum and groundnut value chains, the Centre for Behaviour Change and Communication (CBCC) in partnership with CIMMYT's Drylands Crops Program, within the Accelerated Variety Improvement and Seed Systems in Africa (AVISA) project, is implementing an activity that aims to enhance access to and use of quality finger millet seeds of improved varieties in Busia County, Kenya. The goal is to empower smallholder farmers, women, and youth, augment seed access and utilization, and contribute to increased agricultural productivity, livelihoods, and food security in Busia County. By deploying evidence-based strategies and fostering collaboration among stakeholders, the initiative aims to establish a sustainable seed system for finger millet, beneficial to all stakeholders.

Methodology: The initiative adopts Social and Behaviour Change (SBC) programming principles, employing an interactive, researched, and planned process to alter individual behaviours and social conditions. Utilizing a holistic systematic approach and SBC methodologies, it aims to effect comprehensive and sustainable changes.

Key Findings from a formative study: This was conducted prior to project initiation in Busia County, Western Kenya. It employed a cross-sectional design to inform program design by investigating barriers and facilitators to equitable seed access. The study focused on understanding gender and social norms among unreached smallholder farmers, particularly women and youth, concerning their participation in seed production, seed enterprises, and access to information on improved finger millet varieties. Data was collected from 605 randomly selected farmers, 11 key informants, and 16 focus group discussions, utilizing both quantitative and qualitative methods to provide a comprehensive understanding of the existing seed supply systems and challenges faced by farmers. The formative study unveiled critical barriers, including limited awareness of improved varieties with only 54.4% of respondents aware of at least one improved finger millet seed variety. 32% of farmers reported having difficulties in accessing finger millet information, with male-headed households receiving more market information (43.2%) than female-headed households (33.7%), potentially affecting females

decision-making in production, marketing and seed access. Also, only 2.6% of farmers have been engaged in local seed production. Other notable findings from the study comprise:

- i. Limited awareness and adoption of improved finger millet varieties. Male-headed households had significantly higher awareness (58%) and adoption (47%) of improved finger millet varieties compared to female-headed households (46.6% awareness and 37.3% adoption). Also, although youth-headed households had awareness levels of 55%, only 43% of those who were aware had adopted improved finger millet varieties. Lack of awareness was cited as the main reason for not any planting improved varieties by the farmers. In total, there are 18 improved finger millet varieties. **Maridadi** (U-15) was the most well-known variety, with an overall awareness of 39.7%. **Obokorit** (P-224) was the second most recognized, with a 24.1% awareness level, **Gulu** had a 5.6% awareness level, while the remaining varieties had awareness levels below 5%. Some varieties, like KAK-Wimbi 2, KAK-Wimbi 4, GBK 043254, MSU FM 60D, EU FM 502, and EU FM 503, had 0% awareness.
- ii. Challenges in seed accessibility, which includes high cost, low availability, and inadequate knowledge about improved varieties. Availability of improved varieties is limited in local agrovet outlets, leading farmers to mainly rely on recycled seeds. Local seed multiplication is also minimal.
- iii. The land set aside for finger millet farming is reducing due to crop competition with other crops and land fragmentation.
- iv. Difficulty in accessing market information on finger millet. Farmer groups and traders are the main sources for market information.



- v. Socio-economic and cultural factors significantly hindering the adoption and utilization of improved finger millet varieties by women and the youth were identified as discussed below:
 - a. Traditionally, women were responsible for millet farming, but as farming became more economically important, gender norms limited their roles. Men typically make decisions on land use and crop selection, restricting women's influence.

- b. Women and youth face obstacles in accessing land, knowledge, and resources for farming.
- c. Men are the primary decision-makers on crop sales and the use of proceeds. Women and children provide most of the labor for finger millet production, however, conflicts arise when men, who did not contribute to farming, want to sell the produce and control earnings.
- d. Sales proceeds are sometimes diverted, with men spending money on alcohol and women secretly setting aside harvests for private sales. This has led to misunderstandings about yield, with men incorrectly believing the seed variety selected is not high yielding.
- e. Cultural beliefs such as planting finger millet during short rains (October to December) could cause calamity in the family, limits planting to once a year during the long rains (March to May).
- vi. Initiatives to improve seed access are hampered by resource limitations, disproportionately affecting women. In the absence of community initiatives for seed access and sharing, women rely on recycled seeds and social networks for seed exchange.

Target Audience: The strategy targets three primary groups:

- **Primary Audience:** Smallholder farmers, including youth, women, neighbours, peer farmers, and farmer groups, who are the most affected.
- **Secondary Audience:** Entities directly influencing their behaviour, including market actors such as aggregators, off-takers, processors, local and regional traders, institutional buyers, government agencies, consumers, and seed companies.
- **Tertiary Audience:** Indirect influencers at the tertiary level, such as breeders, seed certifiers, and NGOs.

SBC Interventions: To tackle these challenges, the initiative proposes a range of SBC interventions informed by the socio-ecological model, aiming to modify individual behaviour and social conditions.

These interventions include:

- Behaviour change and communication to enhance knowledge, attitudes, and practices regarding quality seed of improved varieties among women, youth, and smallholder farmers, to stimulate demand, productivity, adoption, utilization, and incomes.
- Capacity building for seed producers and entrepreneurs.
- Strategic partnerships and linkages with relevant stakeholders to improve market access and reduce purchasing costs of seed of improved finger millet varieties for farmers.
- Advocacy for policy interventions reinforcing commitment to improved quality seed access and utilization.
- Establishment and strengthening community-led youth and women quality business incubation centres to enhance access to quality seeds of improved varieties.

Monitoring and Evaluation: A robust monitoring and evaluation framework will be established to track progress, evaluate intervention effectiveness, and make necessary adjustments. Data will be collected on various indicators among smallholder farmers, women, and youth, including:

- Participation rates in producer groups and training programs
- Improved knowledge and practices regarding quality seeds of improved varieties
- Adoption rates of improved finger millet varieties
- Changes in yield and income levels
- Seed availability and affordability
- Establishment of strategic partnerships
- Establishment of youth and women quality centers as business incubation units.

1. INTRODUCTION

Kenya's agricultural sector plays a crucial role in the nation's economy, employing approximately 60% of the total labor force, in which smallholder farmers constitute the majority of agricultural producers, contributing significantly to the sector's output. The sector serves as a crucial source of food security and income generation for millions of Kenyans, highlighting its importance in ensuring the nation's socioeconomic development. The agricultural industry not only sustains livelihoods but also serves as a key driver of the country's GDP, contributing to approximately 21% of the country's GDP according to the World Bank (2022)¹, highlighting its substantial impact on the overall economic landscape.

Aligned with Kenya Vision 2030, the government aims for agriculture to achieve a 10 percent annual economic growth rate (RoK, 2008)². Recognizing its pivotal role, the government views agriculture as crucial for attaining food security, creating employment opportunities, reducing poverty, and fostering overall economic growth.

Despite the sector's contribution to the country's economy, the sector faces barriers hindering agricultural productivity and food security. These barriers include lack of access to agricultural information, limited access to quality seeds, agro-inputs and limited market access.

1.1. Finger Millet

Millets is a term used for a group of small-seeded cereals from a diverse set of grass species cultivated primarily in semi-arid regions. Varieties of millets include pearl millet, finger millet, foxtail millet, and proso millet. The crop thrives in environments with short growing seasons and is resilient to dry and high-temperature conditions and as a result, plays a crucial role in ensuring food security in Kenya's semi-arid lands. Millets serve various purposes, including human consumption offering a high nutritive value, and fodder for animals.

Finger millet is indigenous to East Africa and serves as a vital food crop for millions of people across Sub-Saharan Africa. It plays a critical role as both a subsistence and food security crop, valued for its nutritional content, cultural, and economic significance. In Kenya, finger millet is predominantly grown in Western Kenya.

Despite its widespread cultivation by smallholder farmers, finger millet yields remain relatively low compared to its potential yield in Kenya. The average recorded finger millet yield being 0.5 t ha⁻¹ verses potential yield of up to 3.8 t ha⁻¹ observed in yield trials (Oduori, 1998)³. This highlights large yield gap attributed to the use of unimproved varieties and poor agricultural practices (Oduori, 2005)⁴. The substantial yield gap in finger millet production highlights the opportunity for improvement. The untapped potential for millet production in Kenya is also evident, with millet cultivation covering 99,000 hectares in Kenya in 2010, yielding an average of 0.5 tons per hectare compared to a cereal like maize which is cultivated in over 2 million hectares (FAOSTAT, 2012)⁵. The potential of finger millet production remains largely untapped due to factors such as limited access to and use of quality seed of improved varieties, Insufficient knowledge on good

¹ World Bank. (2022). "Kenya Economic Update: Navigating the High Inflation Environment."

² RoK. (2008). Vision 2030. *A Globally Competitive and a Prosperous Kenya*. Government Printer, Nairobi Kenya.

³ Oduori, C.O.A. 1998. Finger millet better varieties – Better crop care- More Food, DFID and GON produced by DEVCOM & AIC

⁴ Oduori, C. (2005): The importance and research status of finger millet in Africa. In Nairobi: The McKnight Foundation Collaborative Crop Research.

⁵ FAO (2012): FAOSTAT. Available online at <http://faostat.fao.org/site/567/default.aspx#ancor>, checked on 30/11/2012.

agronomic practices including using seeds of new varieties of millet, and land fragmentation limit the incentive for farmers to invest in quality seed due to insufficient returns on investment (Gitua et al., 2014)⁶. Efforts to improve the production, productivity and value chain of finger millet are essential for enhancing food security and rural livelihoods in Kenya, ultimately contributing to the nation's agricultural and economic development. Addressing these barriers is essential to promote the widespread adoption of quality seed of improved varieties and enhance finger millet productivity in Kenya.

BACKGROUND AND CONTEXT

The project is being implemented in Busia County located in Western Kenya. With a total population of 893,681 as of 2019, the county has a gender distribution of 52% female and approximately 20.9% of the population comprises of youth. Subsistence farming is the primary livelihood for about 39,853 households, accounting for 89.8% of households in Busia.

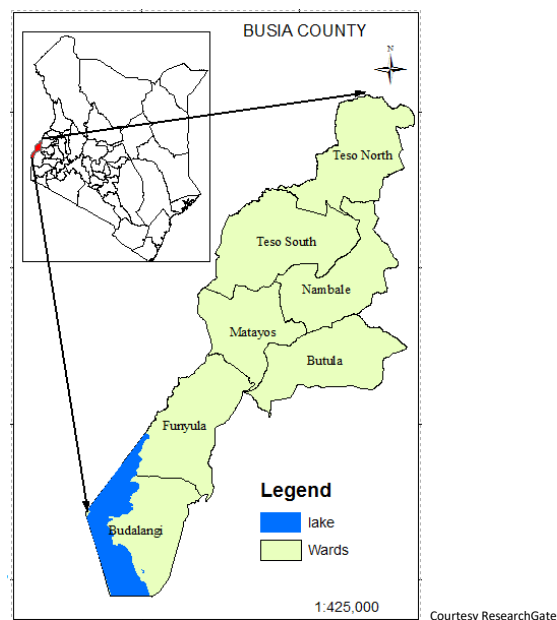


Figure 1: Map of Busia County Kenya showing Teso South Sub-County

2. THE PROJECT

CIMMYT in partnership with the Centre for Behaviour Change and Communication (CBCC) is implementing a two-year Social and Behaviour Change and Communication project aimed at enhancing access to and use of quality finger millet seed of improved varieties through Youth and Women Quality Centres in Busia County, Kenya.

Deploying evidence-based strategies and fostering collaboration among stakeholders, the initiative aims to establish a sustainable seed system beneficial to all stakeholders. The project purposes to achieve this through: -

⁶ Gitua, G. W., Onyango, C. A., & Obara, J. A. (2014). *Selected factors affecting adoption of improved finger millet varieties by small-scale farmers in the semi-arid Mogotio District, Kenya*. International Journal of Sciences Basic and Applied Research, ISSN 2307-4531, 452 - 454

- Establishing seed and input business incubation centers in strategic partnership with relevant government organs, NGOs and other development partners with membership drawn mostly from rural youth and women.
 - Forging strategic partnerships between business incubation centers and grain aggregators in the commodity corridors.
 - Designing mechanisms for the business incubation centers to work with farmers in the hard-to-reach areas for grain production that meet the requisite quality standards.
 - Establishing strategic partnerships with Early Generation Seed producers for sustainable access to quality seed and other inputs.
- Strengthening the technical and business capacity of communities through seed outgrowing or registration of CBOs as seed enterprises.

3. BEHAVIOUR AND CONTEXT ANALYSIS

This section summarizes the main discoveries from the formative baseline study conducted in February 2024. The study aimed to identify obstacles and enablers to accessing and use of quality seed of improved finger millet varieties among underserved smallholder farmers. It also examined gender and social norms affecting access, the involvement of women and youth in seed production, access to information on improved varieties, and awareness of available improved finger millet varieties. The key findings are organized into thematic areas and classified using a user-centric behavioural framework, which considers individual factors, cultural and societal norms, personal relationships, and structural factors.

KEY FINDINGS

The baseline study revealed several key findings regarding the socioeconomic characteristics, variety development process, awareness and adoption of improved finger millet varieties, main purpose for production of the crop, and market dynamics of finger millet farming.

- Majority of households are male-headed (68.1%), with female-headed households typically having lower education levels and older household heads. Male-headed households tend to have larger family sizes, more group memberships, and cultivate larger land parcels. On average, male-headed households cultivate 1.9 acres of land compared to 1.5 acres for female-headed households, representing a difference of 0.4 acres, or approximately 27% more land cultivated by male-headed households. Although female-headed households have slightly more inherited land (2.7 acres) compared to male-headed households (2.6 acres), male-headed households tend to own or lease a bit more land for cultivation in the purchased and rented categories, likely contributing to their overall larger cultivated area. These findings highlight the potential for male-headed households to leverage additional resources, possibly facilitated by social and group memberships, resulting in larger cultivated parcels of land.

Socio-economic and cultural factors significantly hinder the adoption and utilization of quality seed of improved finger millet varieties:

- Traditionally, women were responsible for millet farming, but as farming has become more economically important, gender norms have limited their roles. Men typically make decisions regarding land use and crop/variety selection, restricting women's influence. This often results in men deciding which crop or varieties to plant and how much land to allocate for

each crop. Women and youth also face obstacles in accessing land, knowledge, and resources necessary for farming.

- Women and children provide most of the labor for finger millet production, right from planting, weeding to harvesting. However, at the selling point, men, who may not have contributed to crop management, want to sell the produce and control the earnings, leading to conflict. Men are therefore the primary decision-makers when it comes to crop sales and the use of the proceeds. Furthermore, there are concerns regarding the diversion of sales proceeds. Some men allocate their earnings to alcohol, while certain women discreetly reserve part of the harvest for private sales. This behavior creates misunderstandings about the actual yield, as men may perceive that the planted variety is underperforming, thereby misrepresenting its true potential.

“There is integrated planning. The family members come together to plan what they want to do on their farm according to their needs. They look at the resources they have and what benefit they will produce. Most conflict arises at the selling point. Some men do not want to participate in planting but want to sell the produce. Sometimes, the wife harvests and hides some of the produce and when the husband sees the final yield, it often is not a true reflection of reality, leading to claims that the variety planted is performing dismally. We encourage families to always discuss at all levels.” - County Deputy Director for Agriculture

- Cultural beliefs such as planting finger millet during the short rains (October to December) could cause calamity in the family, dictates farming practices followed and limits planting of the crop to once a year, during the long rains season (March to May).
- In the absence of community initiatives focused on seed access, women rely on recycled seeds and their social networks for seed exchange. These factors create significant barriers to the effective adoption and utilization of improved finger millet varieties.
- In variety development process, selected varieties are evaluated through client-managed National Performance Trials, but awareness and adoption remain limited, necessitating ongoing efforts to promote them. Availability of quality seed of improved varieties is limited in local agrodealer outlets, leading farmers to mainly rely on recycled seeds. Most farmers depend on informal seed systems, reusing grain as seed due to cost and access barriers. Key drivers for adopting improved varieties include availability, affordability, and access to credit.

“Initially, farmers would select the best produce and store it to thresh for planting in the future season, but only a few do that for now; the majority just buy grain to use as seed from the local market.”

- Male farmer, focus group discussion

“Certified seed of improved varieties of finger millet are not easy to find; you have to put in more effort, and the price is always high.”

- Female farmer, focus group discussion

- The results on awareness and adoption of improved finger millet seed varieties in Busia County revealed that while a significant portion of farmers were aware of improved varieties (54.9%), only 44.5% had planted them. Male-headed households showed higher awareness

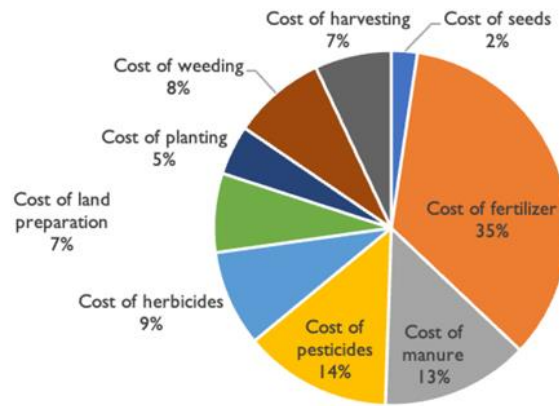
(58.5%) and adoption rates (47.6%) compared to female-headed households (47.2% awareness, 37.8% adoption). Despite the availability of 18 improved varieties, only 12 were known to at least one farmer. Lack of awareness was cited as the main reason for not planting improved varieties, especially among youth farmers. Stakeholders like KALRO, KEPHIS and Subcounty Agriculture Officers play a role in promoting these varieties through marketing and training initiatives.

- On the type and sources of seeds used by farmers in the study area, the study revealed that most agrovets don't stock improved finger millet seeds, leading farmers to rely on recycled seeds from their farms or local cereal shops. Maridadi (U15) and P224 were the most popularly known improved finger millet varieties, with U15 being favored for its productivity and resistance to diseases. However, only a small proportion of farmers participate in the finger millet seed market, with individual purchases being the norm. Recycled seeds from own farms, local cereal shops, and neighbors are the main sources of seeds. From the survey findings and referencing the three mainly grown varieties, from the formative study, 85.6% of farmers cultivate finger millet with an equal focus on both sale and home consumption. This highlights a balanced approach to finger millet production, where the crop serves as both a source of income and a staple for household consumption.
- On awareness and participation in seed multiplication, the study revealed limited engagement among local farmers in Busia County. Only 2.6% of farmers have participated in certified finger millet seed multiplication as contracted farmers for KALRO or any other KEPHIS authorized seed merchants, with just 8.1% aware of local seed multipliers. Multiplication primarily focuses on three varieties: Maridadi, P224, and other local varieties.
- The study also revealed that 10.2% of sampled farmers received seed aid from either the County Government or Development organizations, with similar proportions for both female and male-headed households. Seed aid was received through direct distribution, fairs, and voucher systems.
- Finger millet is perceived as a high-value crop by majority of farmers (86.6%), driven by its nutritional and economic value. The crop is primarily grown for home consumption with a small proportion kept for sale, presenting an opportunity to boost income levels through enhancing productivity. Male-headed households attain significantly higher yield levels for both improved and local varieties than female-headed households due to various factors including higher access to information, inputs and market.

“Initially, it was the women who were left to farm millet, but nowadays, farming has become an economic activity due to life changes. You will find that fathers and mothers jointly decide to plant finger millet. The request is just to make seeds available, educate the people on their production, and make the market readily available. We find finger millet production too costly compared to the grains from the output sales.”

- Male farmer, focus group discussion

- Finger millet production faces several constraints, including low adoption of improved varieties, limited use of yield-enhancing inputs such as manure and fertilizer, and inadequate access to extension services due to staffing shortages in the county agriculture department. From the available literature, it is estimated that the average production cost per acre for finger millet is Kshs 30,250, assuming the farmer is using purchased improved seeds and they are paying for all land operations.



Cost share of various finger millet production inputs

However, from the survey findings, Busia farmers are mostly planting local varieties using own saved or borrowed seeds and mostly utilize family labor. The study consequently established that on average a farmer incurs Kshs 7,897 in production per acre of finger millet planted. The average production cost per acre of finger millet planted is Kshs 7897. Only a small percentage of farmers use fertilizer (31.7%), and manure (31.3%). Pesticides and herbicides are scarcely used. Fertilizer, manure, and pesticides are the primary cost drivers, comprising 35%, 14%, and 13% of the total production cost, respectively. According to the 2019 census, a total of 37,000 hectares in Busia County is dedicated to finger millet cultivation. However, this land area is reportedly decreasing as farmers allocate less land to finger millet farming over time.

- Finger millet production is labor- intensive, with most land operations being manual. Farmers face significant post-harvest losses due to inadequate technologies and lack basic equipment like tarpaulins for drying and threshing, mechanical threshers, and storage facilities. The county government supports farmers through training on good agricultural practices and subsidizes tractor fees for land preparation. Additionally, the county promotes the use of hermetic bags for storage to reduce losses during storage.
- Participation in the market is high, with most farmers selling up to 50% of their harvest, predominantly to local traders. This is the primary challenge facing finger millet farmers which is the limited local market standards, compounded by the lack of standardized weights at the point of sale. Challenges such as price variation and delayed payments from aggregators affect farmers' profitability. Other off takers include traders from other regions, processors, farmer groups, end consumers, and exporters. The average price for a Ksha 2kg tin ranges from Kshs 170 to Kshs 200, with only 38.8% of farmers satisfied with this price. Additionally, the proportion of finger millet sold is higher for the improved varieties than for local varieties.

“We do not have an organized market. The middlemen want to buy from our farmers at a very low price compared to the market price. For example, when the market price is 175 shillings per kg, middlemen want to buy from our farmers at Kshs 50 per kg.”

- County Deputy Director for Agriculture, Busia County

- Access to market information remains a challenge for some farmers, with farmer groups and traders being the main sources. Overall, 5% of farmers find accessing market information on finger millet very difficult, while 26.9% are neutral, 25.1% find it somewhat easy, 35.9% find it easy, and 7.1% find it very easy. The main sources of market information for farmers include

farmer groups (59.3%), traders (53.5%), and radio/TV (32.1%). Despite challenges, including difficulty in accessing market information, farmer groups and traders play crucial roles in disseminating market information to farmers.

4. ADDRESSING VALUE PROPOSITION

4.1. Farmer perspective

Crop production serves as a critical juncture within the crop value chain, where the outcomes of breeding research intersect with market demands from grain off-takers. Strategically, it's imperative for farmers to align their production with market needs and access necessary technologies to meet these demands effectively. To delve deeper into this understanding, addressing five fundamental questions from the formative study becomes essential:

I. Need: What are farmers seeking in finger millet production?

Farmers primarily aim for increased incomes, driven by enhanced production and productivity, access to viable markets, and favorable pricing. Additionally, they seek to bolster their overall well-being, utilizing farming income to support household necessities like food security, housing, education, healthcare, and other social needs.

II. Solution: What solutions do farmers seek to address their needs?

Farmers prioritize seeds that yield grains in demand at favorable prices. They also look for high-yielding varieties with early maturity, resistance to diseases and pests, and resilience to climate change.

III. Access: What seed pathways would best support farmers?

An efficient seed delivery system ensures farmers access the right varieties at the right time, right price and place, thus supporting quality grain production.

IV. Value: What benefits do farmers derive from using quality seed?

Value is gauged by the reasonable pricing of quality seeds compared to local varieties or alternative crops. From the farmers' perspective, value is also measured by the expected financial returns from selling produce. Utilizing quality seed should lead to significant income increases (due to enhanced production and productivity) and reduced expenses.

V. Education: What are the knowledge, skills, and attitude gaps among farmers?

Effective dissemination of knowledge on the benefits of quality seed of improved varieties, good agronomic practices, market insights, and climate-related information is crucial. Education plays a pivotal role in imparting knowledge, honing skills, and shaping attitudes and values among farmers and stakeholders in the crop value chain, enabling them to optimize potential benefits.

4.2. Value building on crop value chain

Building a robust value chain system particularly with a focus on empowering women and youth to facilitate access to and utilization of quality finger millet seed of improved varieties has the potential to boost production and productivity in Busia County, Kenya. This requires efforts in several key areas:

1. **Identifying customer segments:** Farmers are the primary customers in the seed business, and understanding their needs and preferences is paramount. Regular collection and analysis of data on farmers' experiences with quality seed compared to

advertised benefits are essential. Special attention will be given to women and youth as crucial customer segments. Other crucial customer segments include direct influencers of the farmers. From the survey findings, local traders are the main traders transacting with farmers, Other off takers directly transacting with farmers include non-local traders, farmer groups, and end consumers. Varietal traits are important for both farmers and the market. For example, the study established Maridadi (U15) is the farmer's favorite because of its high productivity, color, and resistance to diseases, and consumers mainly preferred it for Ugali (thick dough like porridge that is a local staple food) and is also highly demanded in the production of the local "busaa" (traditional beer). The P224 variety is less popular because, as it begins to head just before maturity, the plants tend to lodge, resulting in a harvest that picks up a significant amount of sand.

2. **Developing a value proposition:** Quality seed must align with market preferences and contribute to enhanced production and productivity to meet farmers' income goals. Addressing concerns such as climate resilience, early maturity, and pest resistance is crucial. Tailoring the value proposition to the needs of women and youth is essential for effective response to their requirements.
3. **Establishing seed distribution channels:** An efficient distribution infrastructure is vital for ensuring accessibility, timeliness, and cost-effectiveness of the final product. Distributors play an important role, and their knowledge and supply reliability significantly impact the availability of quality seed. The alignment of seed with distributors' strategic objectives is essential for their active participation in the value chain.
4. **Nurturing customer relationships:** Structured customer engagement mechanisms are necessary for breeders, seed companies, and their distribution networks to connect with farmers effectively. This feedback loop informs seed production and distribution efforts, contributing to continuous improvement.
5. **Exploring revenue streams:** Quality seed should ideally lead to increased production and revenue for farmers. Exploring avenues for additional revenue, such as value addition and by-products, is important for maximizing monetization opportunities.
6. **Mobilizing key resources:** Farmers may require support in acquiring resources for seed acquisition, production, and post-harvest management. Capacity building, extension support, and financing can bridge resource gaps. Ensuring the availability of quality seed through research and development is important for optimizing the entire value chain.
7. **Managing cost structures:** Extensive research informs breeding programs and policy development, facilitating value creation. Innovations in awareness creation, grain marketing processes are essential for efficiency and cost management.
8. **Implementing key activities:** Small-scale finger millet production in Busia County often faces challenges like limited high seed cost and high labor costs. Financing options such as credit arrangements and loans can alleviate these costs. Farmer cooperatives and group formations enable cost mitigation for efficient production.
9. **Cultivating key partnerships:** Formal partnerships involving stakeholders such as research institutions such as KALRO, KEPHIS, county agricultural departments, farmers, input suppliers, financial institutions, processors, and off-takers are important. These partnerships facilitate collaboration in research, standards development, data sharing, policy engagement, financing, market information and access and legal framework development, supporting all players in the value chain.

5. KEY BARRIERS AND DESIRED OUTCOME

This section presents the key barriers and challenges hindering access to improved finger millet varieties in Busia County. It further highlights the desired changes that the project will be focusing on.

Table 1: Key barriers and desired outcomes

	Barriers	Desired change
Individual factors	Limited awareness and adoption of improved varieties by smallholder farmers.	<ul style="list-style-type: none"> Improved knowledge and positive attitudes, regarding quality seed and improved varieties by smallholder farmers.
	Myths and misconceptions regarding planting seasons.	<ul style="list-style-type: none"> Improved demand and adoption of quality seeds of finger millet by smallholder farmers Improved productivity and incomes
	Inadequate capacity of seed producers	<ul style="list-style-type: none"> Improved knowledge and practices on seed crop management, post-harvest handling and marketing strategies.
Social factors	Social and gender norms limiting women and youth involvement in seed value chain	<ul style="list-style-type: none"> Improved participation of youth and women in seed enterprises Increased involvement of women in decision making.
Structural factors	Limited seed availability	<ul style="list-style-type: none"> Improved availability of quality seeds, especially in remote areas by enhancing distribution networks through last mile delivery channels such as Youth and Women Quality Centres Enhancing local seed production by seed producers in the community.
	High seed costs and limited access to credit financing seed acquisition	<ul style="list-style-type: none"> Improved linkages with strategic partners for access credit facilities to invest in certified seed of improved varieties
	Weak seed system infrastructure	<ul style="list-style-type: none"> Increased access to quality seeds through local seed multipliers Increased linkages with breeders and seed producers. Improved access to seed certification services in the hard-to-reach areas.
	Lack of guaranteed markets, market information or price incentives	<ul style="list-style-type: none"> Improve access to guaranteed markets for high-quality grain to encourage farmers to adopt improved varieties.
		<ul style="list-style-type: none">

6. SOCIAL AND BEHAVIOUR CHANGE

This section consolidates the implications of the key study findings on the project interventions. It aims to present the target demographic, the goals, objectives, and framework that will serve as the foundation for extensive social and behavioural change (SBC) initiatives to ensure access to quality seed of improved finger millet varieties. The section also delves into SBC objectives, key strategies and methodologies to tackle the barriers identified in the study.

6.1. Goal of the strategy

Through application of evidence-based strategies and promotion of cooperation among stakeholders, the strategy's goal is to establish a sustainable and robust finger millet seed system within the agricultural community by enhancing access to improved varieties in Busia County.

6.2. Objectives

- **Behaviour change communication:** Utilizing mass media, peer-to-peer interactions, role models, extension services, and dialogue forums to instigate changes in knowledge, attitudes, norms, and practices among smallholder farmers, youth, and women participating in the program.
- **Capacity building for seed producers and entrepreneurs:** Enhancing the capabilities of seed producers and entrepreneurs through training, skilling and re-tooling activities.
- **Social and market mobilization:** Establishing strategic partnerships and linkages with relevant stakeholders to improve market access and reduce associated costs for inputs, transport and distribution, proper storage facilities, regulatory and certification, mechanization and marketing.
- **Advocacy:** Advocating for resources, policy changes, political support, and social leadership commitment for improving access to quality seed of improved varieties. Engaging with policy and decision-makers, as well as financial and technological partners, to advance these objectives.
- **Gender-intentional SBC Approaches:** Innovative approaches aimed at addressing gender disparities within seed systems, ensuring recognition and integration of women's roles, needs, and potential.

6.3. Social and behaviour change

The project will utilize Social and Behaviour Change (SBC) programming, which is a comprehensive, methodical, research-driven, and planned approach aimed at altering individual, community behaviours and societal conditions. It employs a comprehensive systematic process, leveraging the socio-ecological model and various SBC approaches.

For this project, we've adopted a five-step evidence-based consultative implementation process, as illustrated in the diagram below.

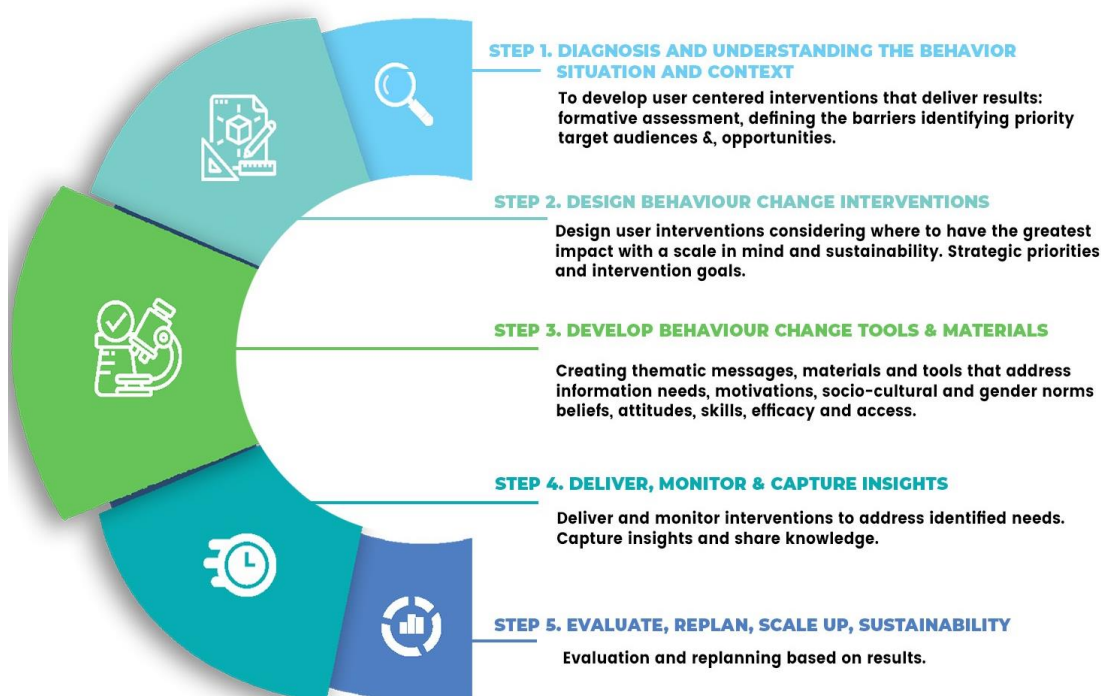


Figure 2: SBC C-planning systematic process⁷

6.4. Socio-ecological model for seeds systems

The project's design draws from the socio-ecological model, embracing innovative behaviour change approaches that extend beyond individual smallholder farmers. It emphasizes shaping social and market conditions, as well as fostering relationships that support desired changes. Key to this approach are cross-cutting conditions that sustain behaviour change among target audiences and stakeholders: access to quality information (knowledge), positive motivations (attitudes, beliefs), ability to act (skills, self-efficacy, access to services and products), norms (perceived, socio-cultural, and gender norms), and an enabling environment.

This model highlights the intricate connections among different actors within the value chain, all of whom play a role in influencing change in the seed system. Likewise, it showcases the need for interventions at all levels to address the cross-cutting issues at the core of the model.

⁷ Adapted from the C-Change/AED. 2010. C-Modules: A Learning Package for Social and Behavior Change Communication Washington, DC: C-Change

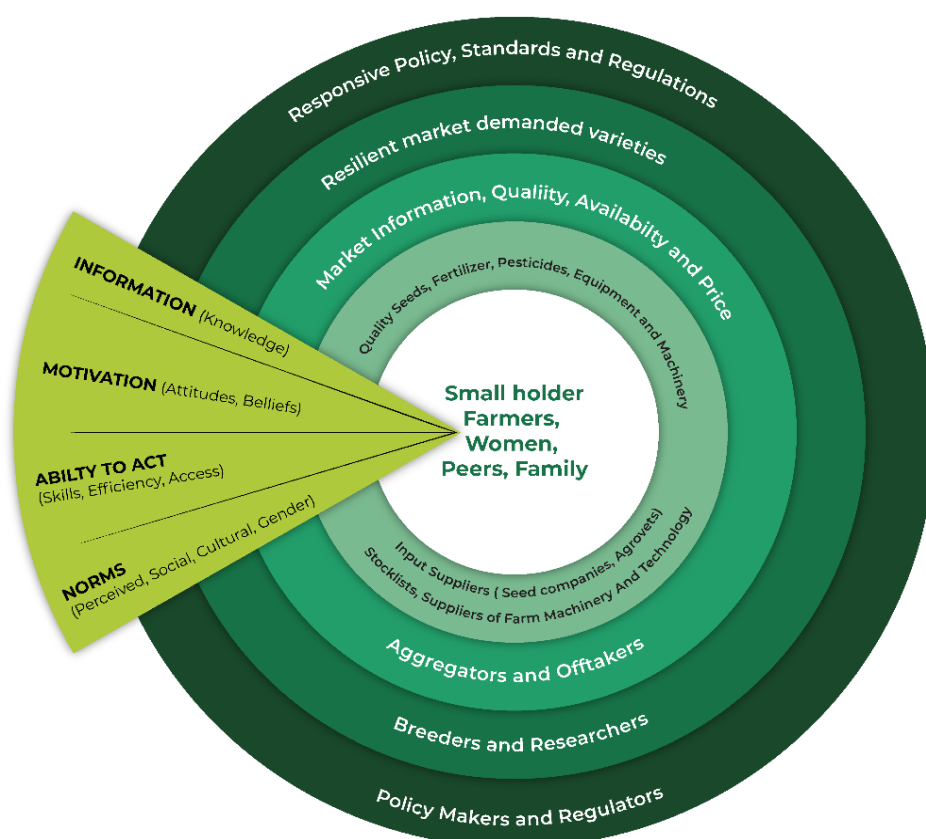


Figure 3: Socio ecological model for seed systems¹

6.5. Target audience

Table 2: Target audience matrix

Audience	Specific audience	Level of change
Primary – Most affected by the problem	<ul style="list-style-type: none"> • Smallholder famers, youth, women 	Individual and community
Secondary – Directly influence the most affected.	<ul style="list-style-type: none"> • Neighbours, Peer farmers, farmer groups • Local cereal shops • Market actors – aggregators, off-takers, processors, local and regional traders • Government actors - Extension officers • Agroinputs • Microfinance and credit • Consumers • Seed companies 	Individual behaviour Community Structural
Tertiary – Indirectly influence the most affected.	<ul style="list-style-type: none"> • Breeders • Seed certification agency • NGOs 	Structural, policy level

6.6. Overall indicators for the SBC strategy

- Increased access to quality finger millet seeds of improved varieties through innovative models.
- Improved knowledge and practices among women and youth led seed enterprises on seed production techniques and quality control measures.
- Established youth and women quality centres, a business incubation centre that enhances access to affordable quality seed of improved varieties.
- Enhanced linkages with strategic partners for access to seeds, aggregators, off-takers, processors, and markets.
- Improved knowledge, attitudes, social norms, and utilization of quality seed of improved varieties.

Table 3: Outcome indicators of the project

Specific Outcome Indicators
#of smallholder farmers, women, and youth: <ul style="list-style-type: none"> • With improved knowledge, attitudes, and practices on quality seeds • Using quality seeds of improved varieties. • Reporting changes in yield and income levels having used quality seeds • Reporting improved availability and access to quality seeds
of community members reached with messages on good agricultural practices, seed production, access and utilization of quality finger millet seeds of improved varieties
of women and youth trained on seed production and business skills
of strategic partnership linkages between different strategic partners in the value chain
of youth and women quality centres established as business incubation units

7. STRATEGIES FOR SHIFTING NORMS, IMPROVING ADOPTION AND UTILIZATION

Drawing from the socio-ecological analysis, a tailored combination of behaviour change strategies have been developed to target change across various levels. These strategies are interconnected and include:

Behaviour change communication: Utilizing mass media, peer-to-peer interactions (such as Youth Champions and farmer-to-farmer exchanges), role models, extension services, and dialogue forums to instigate changes in knowledge, attitudes, norms, and practices among smallholder farmers, youth, and women participating in the program. This also includes implementing innovative methods to recognize and integrate women's roles, needs, and potential within finger millet seed system, thus mitigating existing gender disparities.

Capacity building: Enhancing the capabilities of seed producers and entrepreneurs through capacity-building initiatives.

Social and market mobilization: Fostering wider participation and ownership by mobilizing social and market forces. This includes establishing strategic partnerships and linkages with relevant stakeholders to improve market access and reduce costs.

Collaboration with farmer organizations strengthens collective bargaining power and ensures fair prices for produce. Working with government agencies, such as the Ministry of Agriculture, helps to implement policies that promote market standardization and transparency, protecting farmers from exploitative practices. Also, engaging with financial institutions provides farmers with the necessary capital to scale their operations and access larger markets. Partnerships with NGOs and development agencies supports market linkages through training programs on market requirements and quality standards. In addition to this, collaboration with research institutions helps identify market trends and consumer preferences, enabling farmers to tailor their production to meet demand. These strategic partnerships collectively enhance market access, ensuring farmers receive fair compensation and contributing to the sustainability of finger millet production.

Advocacy: Advocating for resources, policy changes, political support, and social leadership commitment for quality seed of improved varieties. Engaging with policy and decision-makers, as well as financial and technological partners, to advance these objectives.



Figure 4: SBC approaches

The following are detailed insights into the key strategies devised to tackle the identified barriers effectively.

Strategy 1: Behaviour Change Communication

Behaviour change communication aims to alter knowledge, attitudes, social norms, and practices related to quality seeds among women, youth, and smallholder farmers. This strategy seeks to boost demand, productivity, adoption, utilization, and incomes through various means:

- **SBC Campaign and materials:** Crafting a social and behaviour change campaign, along with tailored messages and materials (both audio and print), addressing specific needs such as knowledge gaps, attitudes, motivations, beliefs, and practices.
- **Mass media and interpersonal channels:** Leveraging local communication platforms such as radio, farmer groups, and community leaders to disseminate information effectively.
- **Social and gender norms:** Addressing social norms and cultural practices that hinder women's participation in seed systems through SBC campaigns focused on shifting perceptions and beliefs.
- **Farmer mobilization:** Collaborating with community organizations and extension services to identify and engage farmers, for adoption and utilization of quality improved varieties and facilitating discussions on seed-related challenges and opportunities.
- **Community engagement:** Mobilizing institutions and farmer groups through social mobilization and community engagement to raise awareness and promote wider participation and ownership.
- **Establishing demonstration plots:** Partnering with research institutions and NGOs to establish demonstration plots showcasing high-yielding improved finger millet varieties. Organizing field visits for farmers and producer groups to observe and learn about improved varieties firsthand.

Strategy 2: Capacity Building for Seed Producers and Entrepreneurs

Capacity building aims to equip seed producers and entrepreneurs with necessary skills and knowledge. This entails:

- **Skill development workshops:** Developing training guides and organizing workshops in collaboration with agricultural extension services, research institutions and seed certification agencies to impart technical skills in variety selection, seed multiplication, storage techniques, good agricultural practices (GAP) for seed production, business management, and financial literacy. This facilitates the establishment of community-based seed enterprises for local seed production and distribution.
- **Mentorship:** Linking experienced seed producers to facilitate knowledge transfer, share best practices, and address challenges.

Strategy 3: Social and Market Mobilization

This strategy involves forging partnerships and linkages with relevant stakeholders for market access and cost reduction:

Youth and Women Quality Centers (YWQCs) as Business incubation centers: Establishing community-led youth and women quality centers to enhance access to agro-inputs, quality finger millet seed at affordable prices and facilitating market linkages between farmers and buyers, aggregators, off-takers, including local markets, regional traders, and processors to ensure market-driven production. YWQCs supporting farmer groups in bulk seed procurement and distribution.

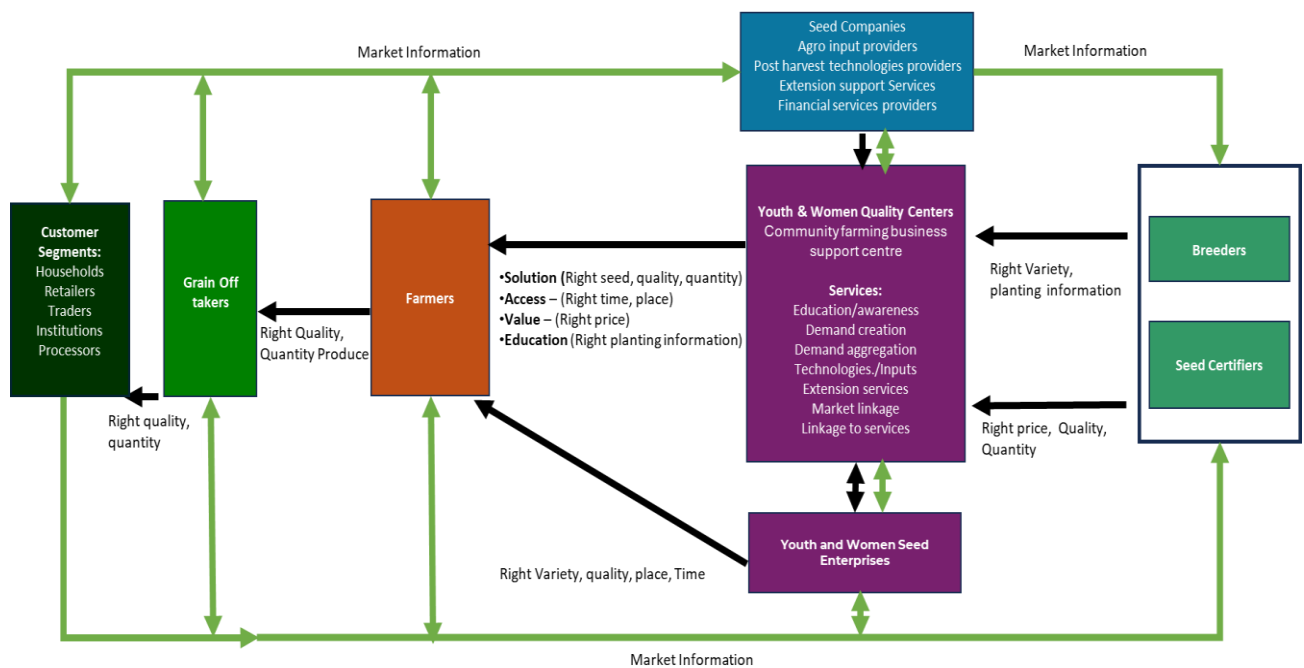


Figure 5: YWQC-Behaviour change, seed demand and supply responsive model

Strategy 4: Advocacy for Policy Interventions

Advocating for policy enforcement to enhance commitment and improve access to quality seeds by partnering with government agencies responsible for seed quality control for enforcement of existing seed regulations. Policy interventions will also encompass grain production and standards to ensure that farmers investing in quality seeds can sell high-quality grain at competitive prices.

Strategy 5: Gender-Intentional SBC Approaches (Cross-cutting Strategy)

Innovative approaches aimed at addressing gender disparities within agricultural and seed systems, ensuring recognition and integration of women's roles, needs, and potential in Busia County.

- **Gender inclusivity:** Ensuring equal participation, opportunities, and recognition of women within agricultural and seed systems, addressing any disparities or biases based on gender.
- **Capacity building:** Provide training focused on enhancing the capacity of women in crop and seed production, distribution, and entrepreneurship.
- **Equal access to resources:** Ensure women have equitable access to inputs and resources for seed and grain production and entrepreneurship.
- **Improving market access for women:** Enhance market access and participation of women by providing information systems accessible to them and supporting women-led enterprises.
- **Addressing social norms:** Target social norms and cultural practices limiting women's participation in seed systems through SBC campaigns aimed at shifting perceptions and beliefs.

8. KEY MESSAGE THEMES BY TARGET AUDIENCE

This section provides an overview of the main themes and key messages tailored for various target audiences in the project, as identified from the study.

Table 2: Key message matrix

Barriers	Outcomes	Accelerator Behaviours	Key Messages
<p>Limited awareness, access and adoption of improved varieties, particularly among specific groups like women and youth</p> <p>Myths and misconceptions regarding planting seasons</p> <p>Audience</p> <ul style="list-style-type: none"> • Smallholder famers, youth, women • Neighbours, peer farmers, farmer groups 	<ul style="list-style-type: none"> • Improved knowledge, attitudes, regarding use of quality seed by smallholder farmers. • Improved adoption of improved finger millet varieties by smallholder farmers • Improved productivity and household incomes • Improved participation of youth and women in finger millet value chain • Improved demand for quality seed. 	<p>Farmers know (become aware through observation, inquiry or getting information) the benefits of quality seed of improved finger millet varieties.</p> <p>Farmers can start to plant finger millet in both the long rains (March-May) and short rains (October – December)</p> <p>Farmers, women, and youth plant quality seed improved of improved varieties from reliable sources.</p>	<p>Farmers, using quality seed of improved varieties can harness great benefits including disease and pest resistance as well as higher yields. Speak to your ward agricultural officer or a licensed agrodealer today to learn more.</p> <p>Farmers feel confident in adjusting their planting schedules to include both the long and short rains.</p> <p>Farmers, buy quality improved finger millet seeds from your nearest outlet including Youth and Women Quality Centre for better yields. Minimize seed recycling for better yield outcomes.</p>
<p>Social and gender norms limiting women and youth involvement in seed value chain</p> <p>Audience</p>	<ul style="list-style-type: none"> • Improved participation of youth and women in seed enterprises • Increased involvement of women in decision making. 	<p>Women and youth become seed entrepreneurs of certified finger millet seed.</p>	<p>Women and youth increase your incomes by supplying quality seed of improved varieties of finger millet. There is great demand for these seeds by farmers. Start your journey today as a licenced seed supplier and/or seed producer. You can also talk to your Sub</p>

<ul style="list-style-type: none"> • Smallholder famers, youth, women • Neighbours, peer farmers, farmer groups 		<p>Women, are involved in decision making on crop sales and the use of proceeds.</p>	<p>County or Ward extension agricultural officer and KEPHIS representatives to learn more.</p> <p>Women and youth seed entrepreneurs encourage other women and youth to become seed producers to supply quality seed of improved varieties as a business enterprise.</p> <p>Women, become more involved in decision making on crop sales and the use of proceeds in their household</p>
<p>High seed costs (affordability) and limited access to credit financing seed acquisition</p> <p>Audience</p> <ul style="list-style-type: none"> • Smallholder famers, youth, women • Microfinance institutions • NGOs 	<ul style="list-style-type: none"> • Improved access to credit facilities to invest in quality seed of improved varieties. • Improved linkage with strategic partners for credit financing • 	<p>Farmers access credit facilities to enable purchase of quality seed of improved varieties</p> <p>Microfinance institutions design financial products beneficial to finger millet farmers</p> <p>NGOs advocate for policy and regulations that support seed affordability and accessibility.</p> <p>NGOs aggregate sufficient volumes of quality seed of improved varieties to negotiate for lower pricing for farmers.</p>	<p>Farmers, access credit financing from your nearest microfinance institution to be able to buy quality seed of improved varieties to increase your crop productivity and income.</p> <p>Microfinance institutions provide farmers with credit financing which generates returns and fosters growth for your institution through loan repayments and interest.</p> <p>NGOs, give a stronger voice to farmers so that they can access more seeds and at better prices. Engage policy makers so that they are better placed to address the issues facing farmers in the seed sector.</p> <p>NGOs, help farmers get better prices for seeds from suppliers by bargaining on their behalf. Educate farmers on how to access to affordable quality seed local seed businesses such as the youth and women quality centres.</p>

		Support seed multiplication programs.	
<p>Inadequate capacity of seed producers and weak seed system infrastructure</p> <p>Audience</p> <ul style="list-style-type: none"> • Seed Producers • Farmers (Women and youth) • Agro dealers • Microfinance institutions • Market actors – aggregators, off-takers, processors, local and regional traders • Consumers 	<ul style="list-style-type: none"> • Improved knowledge and practices for crop and seed management, post-harvest handling and marketing strategies. • Increased access to quality seeds through local seed businesses. • Increased linkages with breeders and seed producers • Increased access to seed certification services at local level. 	Seed producers use good agronomic practices to enhance seed yields and maintain quality.	Seed producers ensure your seeds are of the best quality by applying Good Agronomic practices (GAPs). Talk to your Sub County or Ward Agricultural officer, KALRO and KEPHIS about seed production GAPs today.
		Women and youth become seed multipliers to help increase farmer access to quality seed of improved varieties.	As seed producers adhere to the seed production protocols set by KALRO and KEPHIS to ensure your seeds are of the best quality for the market.
		Agrodealers distribute certified seed of improved varieties through women and youth enterprises.	Women and youth, there are great business opportunities as producers and suppliers of quality seed of improved varieties, for finger millet which are in great demand by farmers. Start your journey today as a seed supplier by joining certified seed producers. You can also talk to your Sub County or Ward extension agricultural officer or KEPHIS representatives to learn more.
			Many farmers don't buy and plant quality seed of improved varieties due to limited availability of such seeds at community level.

		Microfinance & credit companies provide credit to women and youth seed enterprises.	Many women and youth suffer from lack of capital to engage in business, though many recognized finger millet as a high value crop. Through your microfinance enterprise, provide affordable financing options for women and youth to engage in seed entrepreneurship and finger millet production. This will stimulate their livelihoods, improve the economic growth of the community, and generate returns (and foster growth) for your institution through loan repayments and interest.
		Aggregators endorse quality seed of improved varieties to farmers for higher yields and better-quality products.	As an aggregator, inform farmers to grow quality seed of improved finger millet varieties so that they can avail you and the market with higher quality grain to expand your business due to higher market demand. Start encouraging farmers to plant quality seed of improved varieties that have the qualities that the market desires.
Lack of availability of quality seed of improved varieties and inadequate knowledge about seed varieties Audience	<ul style="list-style-type: none"> Enhancing local seed production by seed producers in the community. Enhanced access at last mile through establishment of youth and women quality centres 	<p>KALRO seeds company to increase outlets for farmers to access quality seed</p> <p>Collaborate with other partners to provide affordable foundation seeds.</p> <p>KEPHIS to encourage local seed production through education on certification processes.</p>	<p>KALRO, provide seeds at affordable prices to enable seed affordability to farmers and seed enterprises. Educate farmers on available quality improved seed varieties.</p> <p>KEPHIS simplify and communicate certification processes to community-based enterprises to run viable seed businesses and be profitable as seed multipliers. This encourages local quality seed supply to communities.</p>
Lack of guaranteed markets, market	<ul style="list-style-type: none"> Improved access markets 	Farmers know market demand on grain varieties and prices to profit	Farmers, join farmer groups to gain information shared on market dynamics and

<p>information or price incentives</p> <p>Audience</p> <ul style="list-style-type: none"> • Farmers • Traders/Off takers, processors 	<ul style="list-style-type: none"> • Improved access to reliable market information 	<p>and produce what the market needs.</p>	<p>benefit from economies of scale when trading.</p> <p>Traders, provide reliable market information and prices for the benefit of the whole value chain, to get consistent supply of quality grain from farmers to expand your businesses. Start encouraging farmers to plant improved varieties with the attributes that the market desires.</p>
<p>Weak policy enforcement on seed quality</p> <p>Audience</p> <ul style="list-style-type: none"> • Farmers • County agricultural extension officers • KALRO 	<ul style="list-style-type: none"> • Improved advocacy efforts with seed regulators to ensure quality control throughout the seed value chain. • Improve extension services to ensure continual education on the benefits of adoption and utilization of quality improved seed varieties. 	<p>Farmers can buy quality seed of improved varieties quality seed of improved varieties</p> <p>Agricultural officers provide extension services on the benefits of use of quality seed of improved varieties and GAPs for finger millet production</p>	<p>Farmers, only buy quality seed of improved varieties from your nearest outlet such as the Youth and Women quality Center, Agrodealer or KALRO to avoid buying low quality seeds or mixed varieties. Use of quality increases yields and income.</p> <p>Agricultural Officers, educate farmers on the benefits of quality seed of improved varieties for agricultural productivity.</p>

9. PROJECT IMPLEMENTATION PLAN

SBC ACTIVITIES	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Strategy 1: Behaviour Change Communication Behaviour change and communication for changes in knowledge, attitudes, social norms, practices of quality seeds among the women and youth and other smallholder farmers to drive demand, productivity, adoption, utilization, and incomes								
SBC campaign and materials: Developing a social and behaviour change campaign, messages, and materials (audio and print) tailored to address specific needs of the smallholder farmers such knowledge gaps, attitudes, motivations, beliefs, and practices.								
Mass media and Interpersonal channels: Utilize local communication channels like radio, farmer groups, and community leaders to disseminate information.								
Mobilize farmers: Partner with existing community organizations and agricultural extension services to identify and engage farmers, to discuss seed-related challenges, and opportunities in access to improved seed varieties								
Community education: Community members reached on messages on good agricultural practices, seed production, business skills and benefits of using quality seeds of improved varieties								
Establish demonstration plots: Establish demonstration plots showcasing high-yielding varieties and organize field visits for farmers and producer groups to observe and learn about improved seeds firsthand.								
Strategy 2: Capacity building of seed producers and seed entrepreneurs								
Skill Development Workshops: Develop training guides and organize training workshops for business management and good agricultural practices for seed multipliers to equip seed producers.								
Strategy 3: Forge strategic partnerships and linkages with relevant stakeholders for market access								
Enhance linkages: <ul style="list-style-type: none"> Forge partnerships with key stakeholders including seed and grain aggregators within and outside the project locations for business linkages. Conduct partnership and linkage meetings to strength relationship between farmers, grain aggregators and other key stakeholders for improving access and use of quality seeds of improved varieties 								

SBC ACTIVITIES	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Youth and women quality centres as business incubation centres: <ul style="list-style-type: none"> Establish community led youth and women quality centres to enhance access to quality and quantity seeds and affordability. Establishing strategic partnerships linked to the centres including market linkages between farmers and buyers, aggregators, off-takers including local markets, regional traders, and processors to ensure market-driven production. 								
Strategy 4: Advocacy for policy interventions that strengthen commitment improved quality seed access and utilization								
Policy: Support Seed Quality Enforcement: <ul style="list-style-type: none"> Collaborate with government agencies responsible for seed quality control to strengthen enforcement of existing regulations and standards. Collaborate with Sub County and Ward agricultural officers for extension services to ensure continual education on the benefits of adoption and utilization of improved seed varieties. 								
Strategy 5: Gender intentional SBC approaches (Cross cutting strategy)								
Monitoring and evaluation:								
Baseline formative research								
Support supervision								
Reporting – Monthly, quarterly, annually								
Endline research								

10. RESULTS FRAMEWORK

Strategy	Activities	Indicator
Behaviour change and communication for changes in knowledge, attitudes, practices of quality seeds among the women and youth and other smallholder farmers to drive demand, productivity, adoption, utilization, and incomes.	Develop social and behaviour change campaign and materials	#Campaigns conducted #Materials developed
	Community members (farmers) with messages (on ground activities)	#Farmers mobilized
	Community education through on-air mass media	#Community members reached with messages on GAPs
	Establish demonstration plots	#Demo plots established
Capacity building for seed producers and seed entrepreneurs	Skill development workshops	#Training guides developed #Training workshops conducted
Forge strategic partnerships and linkages with relevant stakeholders for market access and reduced costs	Forge partnerships with key stakeholders including seed and grain aggregators within and outside the project locations for business linkages	# of strategic partners
	Establish youth and women quality centres as business incubation centre and forge strategic partnerships	#of YWQCs established
Advocacy for policy interventions that strengthen commitment, improved quality seed access and utilization.	Support seed quality enforcement.	# Multi cadre stakeholder forums/partners meetings
Gender-intentional SBC approaches (cross-cutting strategy)	Promote gender equality and empower women involved in seed production, distribution, and use	#Women empowered #Women involved in seed production

		#Women involved in seed distribution
Monitoring and evaluation	Baseline formative research	1 baseline research
	Support supervision	Continuous monitoring and evaluation
	Reporting – monthly, quarterly, annually	#Reports submitted
	Endline research	1 Endline research

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Ukulima Sure

huanza na mbegu bora