



**GREEN
CLIMATE
FUND**

Meeting of the Board
25 – 28 March 2026
Songdo, Incheon, Republic of Korea
Provisional agenda item 10

GCF/B.44/02/Add.08

4 March 2026

Consideration of funding proposals – Addendum VIII

Funding proposal package for FP292

Summary

This addendum contains the following six parts:

- a) A funding proposal summary titled "Scaling climate-smart solutions for hardest-to-reach MSMEs and farmers in Kenya (CST Facility)";
- b) No-objection letter issued by the national designated authority(ies) or focal point(s);
- c) Environmental and social report(s) disclosure;
- d) Independent Technical Advisory Panel's assessment;
- e) Response from the accredited entity to the independent Technical Advisory Panel's assessment; and
- f) Gender documentation.

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Disclaimer:

The designations and the presentation of the materials used in this document, including their respective citations, maps and references, have been included by the relevant Accredited Entity and do not imply the expression of any opinion whatsoever on the part of the Green Climate Fund concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Also, the boundaries and names shown, and the designations used in this document have been included by the relevant Accredited Entity and do not imply official endorsement or acceptance by the Green Climate Fund.

Pursuant to the Comprehensive Information Disclosure Policy of the Fund, the funding proposal is being circulated on a limited distribution basis only to Board Members and Alternate Board Members to ensure confidentiality of certain proprietary, legally privileged or commercially sensitive information of the entity.

Funding Proposal

Project/Programme title:	Scaling climate-smart solutions for hardest-to-reach MSMEs and farmers in Kenya (CST Facility)
Country(ies):	Kenya
Accredited Entity:	KCB Bank Ltd (KCB)
Date of first submission:	2025/08/28
Date of current submission	2026/02/10
Version number	V.006



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Note to Accredited Entities on the use of the funding proposal template

- Accredited Entities should provide summary information in the proposal with cross-reference to annexes such as feasibility studies, gender action plan, term sheet, etc.
- Accredited Entities should ensure that annexes provided are consistent with the details provided in the funding proposal. Updates to the funding proposal and/or annexes must be reflected in all relevant documents.
- The total number of pages for the funding proposal (excluding annexes) **should not exceed 60**. Proposals exceeding the prescribed length will not be assessed within the usual service standard time.
- The recommended font is Arial, size 11.
- Under the [GCF Information Disclosure Policy](#), project and programme funding proposals will be disclosed on the GCF website, simultaneous with the submission to the Board, subject to the redaction of any information that may not be disclosed pursuant to the IDP. Accredited Entities are asked to fill out information on disclosure in section G.4.

Please submit the completed proposal to:

fundingproposal@gcfund.org

Please use the following name convention for the file name:

“FP-[Accredited Entity Short Name]-[Country/Region]-[YYYY/MM/DD]”

A. PROJECT/PROGRAMME SUMMARY															
A.1. Project programme	or Programme	A.2. Public private sector	or Private												
A.3. Request Proposals (RFP)	for <i>If the funding proposal is being submitted in response to a specific GCF Request for Proposals, indicate which RFP it is targeted for. Please note that there is a separate template for the Simplified Approval Process and REDD+. Not applicable</i>														
A.4. Result area(s)	Check the applicable GCF result area(s) that the <u>overall</u> proposed project/programme targets below. For each checked result area(s), indicate the estimated percentage of GCF and Co-financers' contribution devoted to it. The total of the percentages when summed should be 100% for GCF and Co-financers' contribution respectively.														
		GCF contribution	Co-financers' contribution¹												
	Mitigation total	48 %	48 %												
	<input checked="" type="checkbox"/> Energy generation and access	25 %	25 %												
	<input type="checkbox"/> Low-emission transport	<u>Enter number</u> %	<u>Enter number</u> %												
	<input checked="" type="checkbox"/> Buildings, cities, industries and appliances	23 %	23 %												
	<input type="checkbox"/> Forestry and land use	<u>Enter number</u> %	<u>Enter number</u> %												
	Adaptation total	52 %	52 %												
	<input type="checkbox"/> Most vulnerable people and communities	<u>Enter number</u> %	<u>Enter number</u> %												
	<input checked="" type="checkbox"/> Health and well-being, and food and water security	52 %	52 %												
<input type="checkbox"/> Infrastructure and built environment	<u>Enter number</u> %	<u>Enter number</u> %													
<input type="checkbox"/> Ecosystems and ecosystem services	<u>Enter number</u> %	<u>Enter number</u> %													
A.5. Expected mitigation outcome <i>(Core indicator 1: GHG emissions reduced, avoided or removed / sequestered)</i>	Indicate greenhouse gas (GHG) emission reductions or removals in tCO ₂ e _q over total lifespan of the project/programme ² 3,928,727 tCO ₂ e _q	A.6. Expected adaptation outcome <i>(Core indicator 2: direct and indirect beneficiaries reached)</i>	<p>Indicate total number of direct and indirect beneficiaries 935,692 (1.61% of total population of Kenya) incl. 293,807 women</p> <table border="1"> <tr> <td>Indicate number of direct beneficiaries 112,145 incl. 35,214 women</td> <td>Indicate number of indirect beneficiaries 823,547 incl. 258,594 women</td> </tr> <tr> <td>Indicate % of direct beneficiaries vis-à-vis total population 0.19%</td> <td>Indicate % of indirect beneficiaries vis-à-vis total population 1.42%</td> </tr> </table>	Indicate number of direct beneficiaries 112,145 incl. 35,214 women	Indicate number of indirect beneficiaries 823,547 incl. 258,594 women	Indicate % of direct beneficiaries vis-à-vis total population 0.19%	Indicate % of indirect beneficiaries vis-à-vis total population 1.42%								
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Indicate % of direct beneficiaries vis-à-vis total population 0.19%	Indicate % of indirect beneficiaries vis-à-vis total population 1.42%														
A.7. Total financing (GCF + co-finance³)	96,906,200 USD	A.9. Project size	Medium (Upto USD 250 million)												
A.8. Total GCF funding requested	<u>43,643,200</u> USD														
A.10. Financial instrument(s) requested for the GCF funding	<p>Mark all that apply and provide total amounts. The sum of all total amounts should be consistent with A.8.</p> <table border="0"> <tr> <td><input checked="" type="checkbox"/> Grant</td> <td>\$8.332 million</td> <td><input type="checkbox"/> Equity</td> <td><u>Enter number</u></td> </tr> <tr> <td><input checked="" type="checkbox"/> Loan</td> <td>\$15 million</td> <td><input type="checkbox"/> Results-based payment</td> <td><u>Enter number</u></td> </tr> <tr> <td><input checked="" type="checkbox"/> Guarantee</td> <td>\$20.3112 million</td> <td></td> <td></td> </tr> </table>			<input checked="" type="checkbox"/> Grant	\$8.332 million	<input type="checkbox"/> Equity	<u>Enter number</u>	<input checked="" type="checkbox"/> Loan	\$15 million	<input type="checkbox"/> Results-based payment	<u>Enter number</u>	<input checked="" type="checkbox"/> Guarantee	\$20.3112 million		
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<input checked="" type="checkbox"/> Loan	\$15 million	<input type="checkbox"/> Results-based payment	<u>Enter number</u>												
<input checked="" type="checkbox"/> Guarantee	\$20.3112 million														

¹ Co-financer's contribution means the financial resources requested, whether Public Finance or Private Finance, in addition to the GCF contribution (i.e., GCF financial resources requested by the Accredited Entity) to implement the project or programme described in the funding proposal.

² The total lifespan of the project/programme is defined as the maximum number of years over which the outcome of the investment are expected to be effective. This is different from the project/programme implementation period.

³ Refer to the Policy of Co-financing of the GCF.

<p>A.11. Implementation period</p>	<p>Indicate the number of years and months the project/programme is expected to be implemented. 10 years</p>	<p>A.12. Total lifespan</p>	<p>Indicate the maximum number of years over which the outcomes of the investment are expected to be effective, i.e. to lead to adaptation and/or mitigation results. 10 years</p>
<p>A.13. Expected date of AE internal approval</p>	<p>This is the date that the Accredited Entity obtained/will obtain its own approval to implement the project/programme, if available. 3/1/2026</p>	<p>A.14. ESS category</p>	<p>Refer to the AE's safeguard policy and GCF ESS Standards to assess your FP category. I-2</p>
<p>A.15. Has this FP been submitted as a CN before?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>A.16. Has Readiness or PPF support been used to prepare this FP?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>A.17. Is this FP included in the entity work programme?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>A.18. Is this FP included in the country programme?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>A.19. Complementarity and coherence</p>	<p>Does the project/programme complement other climate finance funding (e.g. GEF, AF, CIF, etc.)? If yes, please elaborate in section B.1. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>		
<p>A.20. Executing Entity information</p>	<p>If not the Accredited Entity, please indicate the full legal name of the Executing Entity(ies) and provide its country of registration and ownership type. Note that there can be more than one Executing Entity. Also indicate if an Executing Entity is the National Designated Authority. Refer to the definition of Executing Entity in the Accreditation Master Agreement. The Accredited Entity, KCB Bank Kenya Limited, will act as Executing Entity for all activities of the Programme.</p>		
<p>A.21. Executive summary (max. 750 words, approximately 1.5 pages)</p>			

Provide an executive summary of the project/programme including:

1. *Climate change problem*
 2. *Proposed interventions*
 3. *Climate results/benefits*
1. Kenya faces acute vulnerability to climate change, with over 80% of its landmass categorized as arid and semi-arid lands (ASALs). These regions experience frequent climate hazards, including prolonged droughts and extreme flooding, leading to significant economic losses - estimated at 3% of the country's GDP annually⁴. With approximately 46% of Kenyans living below the poverty line, and agriculture contributing 26% to GDP while employing 70% of the rural workforce, climate disruptions severely impact livelihoods, food security, and economic stability⁵⁶.
 2. Reliance on rain-fed agriculture exacerbates exposure to erratic weather patterns. MSMEs, farmers, and rural communities struggle to access climate-smart technologies for food production, financing mechanisms, and adaptation strategies. Limited access to credit, high upfront costs for climate-smart solutions, and market inefficiencies prevent widespread adoption of Climate-Smart Technologies (CSTs), further increasing vulnerability⁷⁸.
 3. Kenya's Updated Nationally Determined Contribution (NDC) prioritizes interventions across key sectors, including agriculture, water, waste management, energy, industry (as post-harvest processing in this Programme), targeting a 32% reduction in GHG emissions by 2030⁹. The adoption of CSTs - including solar-powered irrigation and post-harvest technologies, resilient agriculture practices, renewable energy and energy efficiency for Cooperatives working in food security, along with water management and waste-to-energy solutions - forms a critical pathway toward adaptation and mitigation. This Programme aims to improve women access to financing in the most underserved regions.
 4. This Programme targets Micro businesses, SMEs, and smallholders through a regionally differentiated inclusive approach based on three Clusters defined by the Composite Vulnerability Index with most of the blended finance resources are directed to underserved micro-enterprises and smallholders as compared to SMEs to enhance equitable access by the hardest-to-reach:
 - **Cluster 1** comprises counties facing extreme food insecurity and severe climate change impacts, where access to structured finance is virtually absent (ASALs counties). At least 50% of Programme resources are allocated to these counties, supported by enhanced de-risking measures for adaptation and women-oriented loans to improve access to finance and enable the Bank to lend to highly vulnerable populations.
 - **Cluster 2** includes areas with limited climate resilience and continued exposure to severe climate risks with 40% of the Programme resources allocation.
 - **Cluster 3** serves as the Programme's anchor, leveraging existing financial infrastructure to roll out CST solutions to borrowers who would otherwise remain excluded from CST financing without GCF intervention with incremental not more than 10% resources allocation.
 5. This clustering approach ensures that financing is equitably allocated based on climate vulnerability and lack of access to CST, with tailored instruments deployed to address distinct barriers across regions for CSTs adoption by MSMEs and smallholder to improve food security.
 6. The Climate Smart Technology Facility (CST) facility Programme, structured as a blended finance mechanism, will provide concessional funding for hardest-to-reach MSMEs and farmers to scale CST adoption, strengthening resilience and reducing emissions through KCB largest national network. The program will address key financial, knowledge, technical, and market barriers, ensuring inclusive participation of the most vulnerable groups.
 7. Intervention strategies include:
 - Dedicated blended finance facility CST – USD 65M CST facility comprising a USD 15M concessional 10-year loan from the GCF, USD 50M senior loan from KCB, and USD 20.3112M 7-year guarantee, enabling access to financing for the most vulnerable MSMEs and farmers.
 - Strengthened Climate Impact and Risk Assessment Framework (CIRAF) – Enhancing KCB's data for CAFI tool for targeted climate finance, ensuring effective tracking of climate adaptation and mitigation outcomes.
 - Capacity building & CST market linkages for MSMEs and smallholders – Supporting technical training and knowledge sharing to facilitate CST adoption, improving financial literacy and business viability. Policy & institutional frameworks – Collaborating with regulators and financial institutions to scale sustainable finance solutions, promoting tailored loan products aligned with Kenya's Updated NDC priorities.
 8. Accordingly, the GCF will provide an additional USD 8.332M grant to the Programme, complemented by a USD 3.263M contribution from KCB. The GCF capital for CST Facility therefore serves a dual purpose:

- **Catalytic function:** to increase the appetite of private capital to serve the hardest-to-reach segments - particularly in ASAL counties where structured finance is not developed - by enabling lower interest rates and reduced fees for end-borrowers through the passing of concessionality.
 - **De-risking function:** to support CST adoption among the most vulnerable borrowers within the hardest-to-reach segments, especially those operating in high-risk adaptation contexts and women in Cluster 1, through a portfolio-based partial credit guarantee.
9. The CST Facility will deliver substantial adaptation and mitigation benefits in line with Kenya's national climate priorities. Over the 10-year Programme horizon, the Facility is expected to reduce approximately 3.929 million tCO₂e, while enabling about 160 thousand Climate-Smart Technology (CST) loans - 52% for adaptation and 48% for mitigation. These investments will strengthen food security and climate resilience for an estimated 935,692 beneficiaries, including 293,807 women, by expanding access to concessional finance for the hardest-to-reach MSMEs and farmers. Through targeted de-risking and tailored CST financing, the Facility ensures that vulnerable populations can adopt technologies that enhance productivity, reduce climate exposure, and support long-term resilience. By mobilizing private capital and strengthening Kenya's climate-smart financing ecosystem, the CST facility advances sustainable, inclusive development - reducing vulnerabilities while fostering long-term economic and environmental resilience.

⁴ <https://climateknowledgeportal.worldbank.org/country/kenya/vulnerability>

⁵ <https://africanclimatefoundation.org/wp-content/uploads/2023/11/800832-ACF-Kenya-country-note-04.pdf>

⁶ <https://www.climaterealityproject.org/blog/how-climate-crisis-impacting-kenya>

⁷ <https://repository.kippra.or.ke/items/bbded3e3-5b00-4e1b-9ba4-308533897e8a>

⁸ <https://alliancebioiversityciat.org/stories/first-climate-adaptation-credit-facility-agriculture-launches-kenya>

⁹ [Kenya's second NDC \(2031-35\)](#)

B. PROJECT/PROGRAMME INFORMATION

B.1. Climate context (max. 1000 words, approximately 2 pages)

Climate change problem: Describe the climate change problem the proposal is expected to address. Describe the mitigation needs (GHG emissions profile) and/or adaptation needs (climate hazards and associated risks based on impacts, exposure, and vulnerabilities) that the proposed interventions are expected to address. Also describe the most likely scenario (prevailing conditions or other alternative) that would remain or continue in the absence of the proposed interventions. Include baseline information. The methodologies used to derive such information, including the mitigation and adaptation needs, should be included in the feasibility study.

Context: In describing the mitigation and/or adaptation needs, briefly describe the target region/area of the proposed interventions including information on the demographics, economy, topography, etc.

Related projects/interventions: Also describe any recent or ongoing projects/interventions that are related to the proposal from other domestic or international sources of funding, such as the Global Environment Facility, Adaptation Fund, Climate Investment Funds, etc., and how they will be complemented by this project/programme (e.g., scaling up, replication, etc.). Please identify current gaps and barriers regarding recent or ongoing projects and elaborate further how this project/programme complements or addresses these.

The National Climate Change Challenge: Vulnerability and Development

10. Kenya faces a worsening climate crisis that directly threatens its economic development, social stability, and the livelihoods of millions. The country's economy is heavily dependent on climate-sensitive natural resources, particularly agriculture, livestock, water, forests, and biodiversity.^{10,11} This dependency makes Kenya acutely vulnerable to climate shocks that undermine poverty reduction and slow economic growth.^{12,13}
11. At the centre of this vulnerability is Kenya's economic structure. Agriculture employs over 40 percent of the workforce and contributes about 20 percent to the national GDP. However, 98 percent of agricultural production is rain-fed, leaving it highly exposed to rainfall variability and temperature changes.¹⁴ This sensitivity is intensified by geography, since more than 80 percent of Kenya's landmass lies in Arid and Semi-Arid Lands (ASALs).¹⁵ These regions, home to marginalized pastoralist communities, experience the greatest climate stress and bear a disproportionate share of drought and flood impacts.¹⁶
12. Climate impacts are already severe and measurable. Approximately 70 percent of natural disasters in Kenya are linked to extreme weather events, causing annual economic losses estimated at 3 percent of GDP.¹⁷ The 2022 drought, for instance, reduced national maize production by 6.5 percent and milk output by 5.9 percent, severely affecting food supplies and rural incomes.¹⁸ Similarly, the 2024 floods submerged more than 41,000 acres of farmland and resulted in the loss of over 9,000 livestock, devastating livelihoods across several counties.^{19,20}
13. Beyond economic damage, climate change intensifies poverty, food insecurity, youth unemployment, and inequality.²¹ It traps vulnerable households, particularly those reliant on rain-fed agriculture, in a cycle of poverty and vulnerability.^{22,23} With limited adaptive capacity, they often resort to harmful coping strategies such as selling

¹⁰ [Spatial changes to climatic suitability and availability of agropastoral farming systems across Kenya \(1980–2020\)](#)

¹¹ [Farmers' use of climate change adaptation strategies and their impacts on food security in Kenya - PMC](#)

¹² [ACF-Kenya-country-note-04.pdf](#)

¹³ [From Climate Risk to Resilience: Unpacking the Economic Impacts of Climate Change in Kenya, November 2023 - Kenya | ReliefWeb](#)

¹⁴ [kenya climate smart agriculture strategy.pdf](#)

¹⁵ [20220331_acaps_thematic_report_kenyaimpact_of_drought.pdf](#)

¹⁶ [Climate change impacts, adaptation options and opportunities for investment in agro-pastoral value chains in arid and semi-arid regions of Kenya | SEI](#)

¹⁷ [ACF-Kenya-country-note-04.pdf](#)

¹⁸ Kenya National Bureau of Statistics (KNBS). (2023). Economic Survey 2023

¹⁹ [Kenya: Floods - Apr 2024 | ReliefWeb](#)

²⁰ [Kenya: Heavy Rains and Flooding Update - Flash Update #6 \(17 May 2024\) | OCHA](#)

²¹ [An Analysis of Climate Change and Its Effect on Economic Growth in Kenya | American Journal of Economics](#)

²² <https://academicjournals.org/journal/AJAR/article-full-text-pdf/331696360674.pdf>

²³ [Climate change impacts and relevance of smallholder farmers' response in arid and semi-arid lands in Kenya - ScienceDirect](#)

livestock, reducing food intake, or withdrawing children from school.^{24,25} These short-term survival measures further erode their resilience and future adaptive capacity. As a result, climate change has become not only a driver of economic loss but also a root cause of persistent poverty in Kenya.²⁶

A Targeted Approach: The Vulnerability Cluster Framework

14. To address this challenge, the proposal's financial structure and intervention portfolio are based on a detailed, county-level vulnerability assessment, across all 47 Kenyan counties using the Intergovernmental Panel on Climate Change (IPCC) framework (see Annex 26). The CVI integrates three key dimensions of vulnerability:
- Exposure – the extent to which a county is exposed to climate hazards such as droughts and floods.
 - Sensitivity – the degree to which a county's population and economy, including its dependence on rain-fed agriculture, are affected by those hazards.
 - Adaptive Capacity – the socio-economic and institutional ability to cope with and recover from climate shocks, reflected in indicators such as poverty levels, infrastructure, and education.
15. Based on this analysis, counties are grouped into three distinct vulnerability clusters that guide the financial allocation of the Climate-Smart Technology (CST) Facility:
- Cluster 1 (High Vulnerability): 19 counties facing the most severe and complex climate challenges. This cluster receives 50 percent of the CST Facility allocation.
 - Cluster 2 (Medium Vulnerability): 15 counties forming a transitional zone with significant but less extreme climate risks. This cluster receives 40 percent of the CST Facility allocation.
 - Cluster 3 (Low Vulnerability): 13 counties, mainly in the central highlands and major urban centres, with higher resilience and adaptive capacity. This cluster receives 10 percent of the CST Facility allocation.
16. The CVI findings highlight that vulnerability is not uniform across Kenya. The drivers of risk vary considerably between counties. For example, Turkana's high vulnerability stems from extreme exposure to climate hazards and strong dependence on pastoral livelihoods, while Kilifi's vulnerability is mainly due to low adaptive capacity linked to socio-economic fragility. This diversity underscores the need for a differentiated portfolio of Climate-Smart Technologies that can address both biophysical risks, such as through solar water pumps in Turkana, and structural socio-economic challenges, such as improved post-harvest solutions in Kilifi. Table B.1.1 outlines the county groupings, climatic zones, and primary livelihoods targeted by this proposal.

Table B.1.1: The Three-Cluster Vulnerability Framework and County Groupings

Cluster/ Vulnerability	Constituent Counties	Climatic Zone(s)	Primary Livelihood & Sectoral Focus
Cluster 1 (High)	Turkana, Mandera, Wajir, Garissa, Marsabit, Isiolo	Arid Desert, Hot Semi-Arid	Pastoralism (Livestock: Meat, Dairy)
Cluster 1 (High)	Samburu, Tana River, Baringo, West Pokot, Kajiado, Narok, Kitui	Semi-Arid	Agri-pastoralism (Drought-tolerant Cereals: Sorghum, Millet; Root Crops: Cassava)
Cluster 1 (High)	Lamu, Kilifi, Kwale, Migori, Homa Bay, Siaya	Coastal & Lake Victoria basin	Rain-fed Agriculture (Maize), Fisheries, Horticulture
Cluster 2 (Medium)	Busia, Bungoma, Kakamega, Kisumu, Nyamira, Kisii, Trans Nzoia, Vihiga, Kericho, Bomet, Nandi	Temperate Highland, Tropical Savanna	Cash Crops (Tea), Dairy Livestock, Rain-fed Maize
Cluster 2 (Medium)	Makueni, Taita Taveta, Laikipia, Elgeyo-Marakwet	Semi-Arid, Temperate Highland	Mixed Farming, High-Value Horticulture (Tomatoes, Mangoes)

²⁴ [20220331_acaps_thematic_report_kenyaimpact_of_drought.pdf](https://www.kippra.or.ke/server/api/core/bitstreams/d2ece63c-8bcb-4b93-838b-1e323cf1eae4/content)

²⁵ [Climate change impacts, adaptation options and opportunities for investment in agro-pastoral value chains in arid and semi-arid regions of Kenya | SEI](https://www.kippra.or.ke/server/api/core/bitstreams/d2ece63c-8bcb-4b93-838b-1e323cf1eae4/content)

²⁶ <https://repository.kippra.or.ke/server/api/core/bitstreams/d2ece63c-8bcb-4b93-838b-1e323cf1eae4/content>

Cluster 3 (Low)	Uasin Gishu, Tharaka-Nithi, Machakos, Embu, Meru, Nakuru, Nyandarua, Mombasa, Murang'a, Kirinyaga, Nyeri, Kiambu, Nairobi	Subtropical Highland, Temperate Highland	Agri-processing Cooperatives (Dairy, Coffee, Tea), Peri-urban Agriculture, Cash Crops (Coffee)
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Baseline Climate and Future Projections (The "Business-as-Usual" Scenario)

17. The BAU scenario, representing a future without intervention, underscores the urgency of this proposal. It is characterized by a continuation of historical climate volatility and worsening future trends that threaten Kenya's economy, ecosystems, and livelihoods.

Historical and Projected Temperature Change

18. Kenya's baseline climate shows strong spatial variation. Between 1985 and 2014, mean annual temperatures ranged from about 18–20 °C in highland areas such as the Rift Valley, Mt. Kenya, and the western highlands, to around 30 °C or more in the hottest lowland regions of northern Turkana, north-eastern counties, and the coastal belt.^{27,28}
19. Future projections indicate consistent warming across all regions. By the mid-century period (2026–2055), mean annual temperatures are expected to rise by approximately +1.0 °C under a moderate scenario (SSP2-4.5) and +1.2–1.3 °C under a high-warming scenario (SSP5-8.5), relative to the 1985–2014 baseline.²⁹ By the late century (2056–2085), this warming is projected to intensify to +1.5–2.0 °C under SSP2-4.5 and +2.5–3.0 °C under SSP5-8.5.^{30,31} The already hot Arid and Semi-Arid Lands (ASALs) will become extremely hot, while even the temperate highlands will experience conditions well beyond historical norms.³²

Historical and Projected Precipitation Change

20. Rainfall in Kenya has always been highly variable, ranging from less than 250 mm annually in the northern ASALs to more than 1,400 mm in the western highlands. Only about 20 percent of Kenya's land area receives over 1,000 mm of rainfall per year, yet this small zone supports roughly 80 percent of the population and the majority of crop production.^{33,34}
21. Climate models (CMIP6) project an overall increase in annual rainfall. Under the high-emissions scenario (SSP5-8.5), Kenya could become wetter by +80 to +120 mm per year (a 10–20 percent increase) by mid-century, and by +200 to +350 mm per year (a 20–35 percent increase) by late century, with some areas exceeding +350 mm.³⁵

Projected Changes in Extreme Events and Observed Hazards

22. While total rainfall may increase, the BAU scenario is one of intensifying extremes, longer, hotter droughts interspersed with destructive floods. Studies using CMIP6 project more frequent and severe droughts and floods across Kenya.³⁶
- **Extreme Heat and Drought:** The duration and intensity of heatwaves are projected to increase significantly. By late century under SSP5-8.5, the average Heatwave Duration (HWD) may rise by 25-40 days, and in some

²⁷ [Kenya - Mean Projections \(CMIP6\) | Climate Change Knowledge Portal](#)

²⁸ [15724-WB Kenya Country Profile-WEB.pdf](#)

²⁹ [Kenya - Mean Projections \(CMIP6\) | Climate Change Knowledge Portal](#)

³⁰ [Kenya - Mean Projections \(CMIP6\) | Climate Change Knowledge Portal](#)

³¹ [Historical and projected changes in Extreme High Temperature events over East Africa and associated with meteorological conditions using CMIP6 models - ScienceDirect](#)

³² [15724-WB Kenya Country Profile-WEB.pdf](#)

³³ [kenya climate smart agriculture strategy.pdf](#)

³⁴ [CSA IN KENYA](#)

³⁵ [Kenya - Mean Projections \(CMIP6\) | Climate Change Knowledge Portal](#)

³⁶ [Projected changes in meteorological drought over East Africa inferred from bias-adjusted CMIP6 models](#)

coastal and south-eastern counties by up to +60 days. Heatwave Magnitude (HWM) is projected to increase by +1.5 °C to +3.2 °C, worsening drought frequency and severity.³⁷

- **Extreme Rainfall and Floods:** The RX5DAY index, which measures the highest five-day cumulative rainfall in a year, is expected to increase by 15–30 mm by late century under SSP5-8.5. This suggests rainfall will occur in heavier, more intense bursts, leading to severe flooding, erosion, and runoff rather than improved soil moisture recharge.^{38, 39}
 - **Drought Severity:** Drought indices (SPI, SPEI) reveal severe droughts (≤ -1.5 SPI) are expected to occur 2–3 times more frequently by the 2080s, particularly in the ASAL and southeastern zones.^{40, 41}
23. This “too much, too little” paradox, where prolonged droughts alternate with extreme floods, forms the technical foundation for the proposal’s dual-pronged water strategy. The Climate-Smart Technologies (CSTs) target both water scarcity through interventions such as drip irrigation and solar water pumps, and water excess through measures such as rainwater harvesting, farm ponds, and conservation agriculture.
24. Climate-induced disasters already cost Kenya an estimated 3 percent of GDP annually. Between 2020 and 2022, drought caused the loss of 2.6 million livestock across ASALs, while the 2024 floods submerged more than 41,000 acres of farmland and killed over 9,000 livestock.⁴² These losses highlight the urgency of immediate, well-targeted climate action.

Cluster-Specific Climate Impacts and Adaptation Needs

25. This section presents a data-driven rationale for the Climate-Smart Technology (CST) Facility’s tiered financial allocation, based on quantitative modelling from the proposal’s technical assessment.

Cluster 1 (High Vulnerability)

26. The 50 percent allocation to Cluster 1 is justified by the extreme and existential nature of climate impacts across these 19 counties. These counties experience the highest levels of exposure, sensitivity, and lowest adaptive capacity, making climate risks here a direct threat to life and livelihoods. Quantitative modelling shows catastrophic production losses in key livelihood systems, particularly in rain-fed agriculture and pastoralism, under the business-as-usual scenario.
27. **Temperature and Heat:** Mean annual temperatures in Kenya’s northern lowlands, including Turkana, currently average around 30–31°C, with daily temperatures reaching 33–36°C. Under high emissions scenarios (SSP5-8.5), temperatures across Kenya are projected to rise by 1.2–3.2°C by 2080 compared to pre-industrial levels, with the highest increases expected in northern and eastern regions. By mid-century (2040–2060), mean temperatures are projected to increase by 1.5–2°C under SSP5-8.5 scenario, and by 1–1.5°C under SSP2-4.5 scenario.⁴³ The number of very hot days is projected to increase dramatically, with some parts of northern and eastern Kenya experiencing approximately 300 very hot days per year by 2080 under medium-high emissions scenarios.⁴⁴
28. **Rainfall and Drought Dynamics:** Northern Kenya’s ASALs receive extremely low baseline rainfall, with Turkana County averaging approximately 200–300 mm annually, though localized areas along the lake can dip below 100 mm.^{45,46} Mid-century projections (2040–2060) under SSP5-8.5 indicate precipitation increases of roughly 10–20%

³⁷ [Amplification of compound hot-dry extremes and associated population exposure over East Africa](#)

³⁸ [Amplification of compound hot-dry extremes and associated population exposure over East Africa](#)

³⁹ [Projected changes in population exposure to extreme precipitation events over Central Africa under the global warming levels of 1.5 °C and 2 °C: insights from CMIP6 simulations](#)

⁴⁰ [Amplification of compound hot-dry extremes and associated population exposure over East Africa](#)

⁴¹ [Estimating the Effects of Climate Fluctuations on Precipitation and Temperature in East Africa](#)

⁴² [El Niño 2023 and future climate change exacerbates public health crises in Kenya](#)

⁴³ https://www.climatecentre.org/wp-content/uploads/RCCC-Country-profiles-Kenya_2024_final.pdf

⁴⁴ https://www.adaptationcommunity.net/wp-content/uploads/2021/01/GIZ_Climate-risk-profile-Kenya_EN.pdf

⁴⁵ [Turkana County CIDP \(2018-22\)](#)

⁴⁶ [Turkana County Water Resources Factsheet](#)

across Kenya, though with enhanced interannual variability.⁴⁷ However, climate projections for the late century (2080–2100) under SSP5-8.5 show precipitation increases alongside severe temperature rises of approximately 3.5°C to 4.5°C.⁴⁸ The critical challenge is that rising temperatures and evapotranspiration rates will likely offset potential rainfall gains, creating net water deficits in arid and semi-arid regions.^{49,50}

29. **Extreme Rainfall:** When rain does occur, it is projected to become more intense, particularly along Kenya’s coastal region. The counties of Kwale, Kilifi, and Lamu already record the most extreme 5-day rainfall (RX5DAY) events, historically reaching 160–180 mm⁵¹, which frequently trigger flash flooding and infrastructure damage.⁵² Regional projections indicate that such high-intensity rainfall events are expected to increase in magnitude and frequency under high-emission scenarios (SSP5-8.5), especially in the coastal and south-eastern lowlands⁵³, where convective systems are amplified by rising sea surface temperatures.⁵⁴
30. **Livestock (Pastoralism):** Pastoralism remains the dominant livelihood and epicentre of climate impacts in Kenya’s ASAL (Arid and Semi-Arid Lands) regions. The 2020–2022 drought was among the worst in four decades, leading to the death of approximately 2.6 million livestock across northern and eastern Kenya.⁵⁵ Droughts in May 2017 caused a 35% reduction in milk production, which dropped to 50% in regions where open grazing is practiced. These losses represent permanent destruction of household wealth, given that livestock are the principal assets and savings instruments in ASAL economies.⁵⁶
31. **Agriculture (Agri-Pastoralism):** In the semi-arid sub-zones of Cluster 1, such as Kitui and Kajiado, rain-fed crop systems are increasingly failing. Simulations from APSIM show that without adaptation, sorghum yields decline by 13-24% under RCP4.5 and RCP8.5 scenarios in semi-arid regions. Approx. half of sorghum-growing zones in semi-arid eastern Kenya will experience negative yield changes by 2050.⁵⁷ Maize yields are projected to decline by 10–25% under RCP 4.5–8.5 scenarios.⁵⁸ Maize yield losses of up to 18% are projected during prolonged dry spells in L. Victoria basin.⁵⁹
32. **Hydrological Context:** Cluster 1 counties are largely downstream users in Kenya’s major river basins, making them highly dependent on water management decisions and upstream conditions in less vulnerable regions. The major hydrological basins are:
 - **Ewaso Ng’iro North Basin:** Counties such as Isiolo and Samburu depend almost entirely on river flows originating in the Mt. Kenya region (Cluster 3). Hydrological modelling (SWAT, CORDEX) projects a reduction in streamflow of between -10 percent and -26 percent during the critical March–May rainy season, driven by both climate change and increasing upstream water abstraction.⁶⁰
 - **Tana River Basin:** Hydrological modelling using SWAT driven by multiple CORDEX Regional Climate Models shows that rainfall and key hydrological components (water yield, groundwater recharge, and base flow) are projected to increase across the Tana River Basin relative to the baseline period (1983–2011) under both moderate (RCP 4.5) and high-emissions (RCP 8.5) scenarios.⁶¹ For the entire basin, SWAT model results show that groundwater recharge increases by about +94.8 % under RCP 4.5 for the period 2070–2099

⁴⁷ [World Bank. \(2021\). Climate Risk Profile: Kenya. The World Bank Group.](#)

⁴⁸ [World Bank. \(2021\). Climate Risk Profile: Kenya. The World Bank Group.](#)

⁴⁹ [Adapting East African ecosystems and productive systems to climate change](#)

⁵⁰ [Assessment of effects of climate variability and change on water availability over Turkwel River Basin](#)

⁵¹ Kenya Meteorological Department (KMD). (2024). State of the Climate in Kenya 2023/2024.

⁵² [Kenya Red Cross Society \(2024\). Kenya: Floods and Landslides - Emergency Plan of Action \(EPoA\).](#)

⁵³ <https://open.uct.ac.za/items/f28fbbbf-c258-4c83-88b3-15dfdd908f98>

⁵⁴ <https://link.springer.com/article/10.1007/s00704-016-1973-9>

⁵⁵ <https://kippra.or.ke/effectiveness-of-drought-response-interventions-in-arid-and-semi-arid-lands-in-kenya/>

⁵⁶ https://stsprogrammet.se/wp-content/uploads/2024/01/2406_Caroline_Bark.pdf

⁵⁷ [Assessment of Climate Change Impact on Sorghum Production in Machakos County](#)

⁵⁸ [Modeling the impact of climate change on maize \(Zea mays L.\) production at the county scale in Kenya](#)

⁵⁹ [Leveraging dry spells analysis to mitigate climate change risks on maize crop farming in Lake Victoria Basin, Kenya](#)

⁶⁰ [Simulating streamflow in response to climate change in the upper Ewaso Ngiro catchment, Kenya](#)

⁶¹ <https://piahs.copernicus.org/articles/379/37/2018/>

compared with the 1983–2011 baseline, meaning nearly a doubling of the amount of rainfall infiltrating below the root zone into aquifers. Recharge increases even more (~ +160 %) under RCP 8.5 over the same period, reflecting a stronger climate signal under higher emissions.⁶²

33. The CSTs prioritized for Cluster 1 directly address these high-risk conditions through immediate, life-saving interventions that stabilize livelihoods and protect critical assets. These include solar and wind-powered water pumps, water pans, drought-tolerant crops and fodder systems. Together, these interventions are designed to reduce the magnitude of production losses, improve household resilience, and create a pathway for recovery. Table B.1.2 provides the quantitative justification, linking Cluster 1’s specific hazards, such as drought intensity, temperature rise, and livestock mortality, to the expected benefits and resilience gains from the proposed CST interventions.

Table B.1.2. Cluster 1 - Quantitative Hazards, Impacts, and CST Justification

Climatic Zone / Livelihood	Hazard	Quantitative Impact	CST Response	Expected Quantitative Gain
Arid Desert & Hot Semi-Arid (Pastoralism: Livestock)	Intense & Frequent Droughts	Current: 35-50% milk production loss in droughts. 2.6 million livestock deaths (2020-22). ^{63, 64} Projected: ~15% loss in rangeland livestock carrying capacity. ⁶⁵	Solar-powered water pumps; Improved livestock management (drought-tolerant fodder, e.g., <i>Brachiaria</i>). ⁶⁶	Fodder banking directly offsets the ~15% loss in carrying capacity. Solar pumps mitigate catastrophic herd loss (e.g., 500,000 deaths in Turkana in 2022 from water shortage). ⁶⁷
Arid Desert & Hot Semi-Arid (Pastoralism: Livestock)	Rising Temps & Heat Stress	Projected: Mean temps rising > 0.50°C per decade. ⁶⁸ Milk yield losses began at a daily average temp of approx. 22°C (and a THI of 69). ⁶⁹	Improved livestock management (heat-tolerant breeds, e.g., Sahiwal).	Heat-tolerant Sahiwal breeds maintain milk production at ambient temperatures up to 30-32 °C, directly mitigating heat-stress losses. ⁷⁰
Semi-Arid (Agri-pastoralism: Sorghum, Cassava)	Rainfall Variability & Poor Soil Fertility	Projected: (APSIM) Without adaptation, sorghum yields decline by 13-24% under RCP4.5 and RCP8.5 scenarios in semi-arid regions. Approx. half of sorghum-growing zones in semi-arid eastern	Drought-tolerant and early-maturing sorghum varieties	+20–47% compared to non-adapted cultivars under RCP4.5 and RCP8.5 scenarios. ⁷²
			Soil and water conservation (e.g., tied ridges, mulching, contour bunds)	+18–30% increase in on-farm trials under moderate drought stress. ⁷³

⁶² <https://piahs.copernicus.org/articles/379/37/2018/>

⁶³ [Climate Change and Its Impact on Land Use: A Case Study of Marsabit County, Kenya](#)

⁶⁴ [The impact of forage condition on household food security in northern Kenya and southern Ethiopia](#)

⁶⁵ [Climate change impacts livestock carrying capacity in East Africa | Regional Environmental Change](#)

⁶⁶ [Improved forages enhance adoption of climate-smart agriculture among smallholder farmers in Kenya - CGIAR](#)

⁶⁷ [Harnessing the Power of Solar Water Pumping Solutions in Kenya](#)

⁶⁸ [Heat stress will detrimentally impact future livestock production in East Africa](#)

⁶⁹ [Modeling heat stress effects on dairy cattle milk production in a tropical environment using test-day records and random regression models - ScienceDirect](#)

⁷⁰ [Frontiers | Heat stress effects on milk yield traits and metabolites and mitigation strategies for dairy cattle breeds reared in tropical and sub-tropical countries](#)

⁷² [Assessment of Climate Change Impact on Sorghum Production in Machakos County](#)

⁷³ [Adapting to climate change: Agricultural system and household impacts in East Africa - ScienceDirect](#)

		Kenya will experience negative yield changes by 2050. ⁷¹	Adjusted planting dates and optimized sowing windows	Aligning sowing with early rains reduced drought exposure and increased yields by 15–22% in semi-arid zones. ⁷⁴
			Integrated crop diversification and companion cropping	Intercropping sorghum with leguminous species (e.g., cowpea) improved soil nitrogen and reduced pest pressure, yielding ~22% higher grain output and greater stability under heat stress. ⁷⁵
Coastal & Lake Victoria (Rain-fed Agriculture: Maize)	Drought & Rainfall Variability	Projected: Maize yields in decline by 10–25% under RCP 4.5–8.5 scenarios. ⁷⁶ Yield losses up to 18% during prolonged dry spells in L. Victoria basin. ⁷⁷	Drought-tolerant maize varieties	Increase yields by 20–30% compared to traditional varieties under rainfall deficits. ⁷⁸
			Supplemental irrigation and water harvesting	Improve yields by 20–35% compared with purely rainfed production during dry seasons. ⁷⁹
			Conservation tillage and mulching	Raise water-use efficiency by 10–20%, stabilizing yields during erratic rainfall ⁸⁰
			Agroforestry integration	Can enhance soil moisture retention and improve maize productivity by ~16% in semi-humid regions. ⁸¹
Coastal & Lake Victoria (Horticulture)	Heat, Humidity & Spoilage	Current: ~25% post-harvest loss (PHL) in maize. Mango shelf life is ~12 days.	Post-harvest management (solar-powered cold storage, hybrid solar dryers).	Solar-powered cold storage increases mango shelf life from 12 to 40 days (+233%). ⁸² Hermetic storage reduces maize losses from ~25% to <4%. ⁸³

⁷¹ [Assessment of Climate Change Impact on Sorghum Production in Machakos County](#)

⁷⁴ [Assessing changes in climate suitability and yields of maize and sorghum crops over Kenya in the twenty-first century](#)

⁷⁵ [Climate-adapted companion cropping increases agricultural productivity in East Africa - ScienceDirect](#)

⁷⁶ [Modeling the impact of climate change on maize \(Zea mays L.\) production at the county scale in Kenya](#)

⁷⁷ [Leveraging dry spells analysis to mitigate climate change risks on maize crop farming in Lake Victoria Basin, Kenya](#)

⁷⁸ [The impact of adopting stress-tolerant maize on maize yield, maize income, and food security in Tanzania](#)

⁷⁹ [Optimizing water use efficiency in maize \(Zea mays L.\) production through deficit irrigation in Gazhen-Fuafuat Kebele, Northwest Ethiopia](#)

⁸⁰ [View of Effect of tillage, mulching, herbicide application, intercropping and agroforestry on soil moisture maize yield and rainwater use efficiency in semi-arid Kenya: A case study of Laikipia East](#)

⁸¹ [View of Effect of tillage, mulching, herbicide application, intercropping and agroforestry on soil moisture maize yield and rainwater use efficiency in semi-arid Kenya: A case study of Laikipia East](#)

⁸² <https://onlinelibrary.wiley.com/doi/10.1155/2021/8859144>

⁸³ <https://edepot.wur.nl/566181>

All Cluster 1 Zones (Mitigation Co-benefit)	Biomass Dependency & Deforestation	Current: Over 90% of the rural population relies on solid biomass for cooking. ⁸⁴	Systems for clean cooking (Biogas digesters, solar cookers).	Biogas Digesters: Save 1,856 kg of fuelwood per household/year. ⁸⁵ Solar Cookers: Can save 1 tonne of wood per cooker annually. ⁸⁶
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Cluster 2 (Medium Vulnerability)

34. The 40 percent allocation to this transitional cluster is justified by the need to safeguard Kenya's core agricultural economy and national food security. The 15 counties in this cluster form the backbone of the country's high-value and staple crop production zones. The central challenge here is not subsistence collapse, as in Cluster 1, but systemic economic disruption driven by climate variability that threatens national output, export earnings, and rural employment.
35. **Temperature:** These temperate highland regions, with a historical baseline of ~18–20 °C, are projected to warm significantly, reaching conditions far outside historical norms. Regional CMIP6 simulations indicate that by mid-century (2040–2069), mean annual temperatures across the highlands will increase by +1.1–1.7 °C under SSP2-4.5, and up to +2.8 °C under SSP5-8.5.⁸⁷ This warming is expected to accelerate beyond 2050, threatening the ecological and economic viability of tea and coffee production, which rely on narrow thermal thresholds. Climate projections indicate that lower-elevation tea areas (below 1,800 m) in Kericho and Bomet will lose up to 20–40 % of their current suitability by 2050, forcing production to shift to cooler, higher altitudes.⁸⁸ Similarly, for Arabica coffee (*Coffea arabica*), which thrives between 18–22 °C, a temperature rise of +2 °C could reduce land suitability by >50 % by 2050 in Kenya's central highlands, mirroring patterns observed in other East African regions.⁸⁹
36. **Precipitation:** This zone (e.g., Lake Victoria basin, central highlands) already receives heavy annual rainfall (over 1,000 mm) and is projected to become significantly *wetter*. Under the SSP5-8.5 high-emissions scenario, late-century projections show rainfall increases of +200 to +350 mm (a 20–35% increase), with some western counties exceeding +350 mm.⁹⁰ Precipitation extremes are projected to intensify across the eastern Lake Victoria Basin, especially during the MAM (March–May) and OND (October–December) seasons. This increase stems from enhanced moisture convergence and convective activity driven by a warmer troposphere.⁹¹ CORDEX regional climate models predict a robust positive rainfall trend of +10–35 % over the Kenyan highlands and western Lake Victoria catchment by 2100.^{92, 93}
37. **Extremes:** The primary hazard in Cluster 2 is climate volatility i.e. erratic rainfall, hail, and frost and intense downpours. The RX5DAY (max 5-day rainfall) is already high (100–150 mm) in the western highlands and is projected to increase by +15 to +25 mm by 2100 under the SSP5-8.5 high-emission scenario, leading to severe flooding, soil erosion, and crop damage.⁹⁴
38. **Maize:** The national staple food, grown primarily in this cluster, is at high risk due to climate variability and change. Multiple crop simulation studies using DSSAT-CERES-Maize confirm that future climate change is likely to reduce maize yields across Kenyan production zones unless adaptation measures are adopted. For example, county-scale DSSAT modelling indicates average maize yield declines of ~7 – 8 % by mid-century (2041–2070) under

⁸⁴ [WHO publishes new global data on the use of clean and polluting fuels for cooking by fuel type](#)

⁸⁵ [The potential of biogas technology in fuelwood saving and carbon emission reduction in Central Rift Valley, Ethiopia - PMC](#)

⁸⁶ [SCI x TEALEAVES Case Study: Cooking with the Power of the Sun: Solar Cookers International](#)

⁸⁷ <https://journals.plos.org/climate/article?id=10.1371/journal.pclm.0000114>

⁸⁸ <https://www.mdpi.com/2073-4395/14/9/2080>

⁸⁹ [Projected Rising Temperatures and Vapour Pressure Deficit Threaten Arabica Coffee Production Tanzania's Burgeoning Coffee Region: Empirical Insight from Mbinga District, Tanzania](#)

⁹⁰ <https://www.nature.com/articles/s41598-023-36756-3>

⁹¹ <https://www.nature.com/articles/s41598-023-36756-3>

⁹² <https://www.preprints.org/manuscript/202107.0584/v1>

⁹³ <https://open.uct.ac.za/items/f28fbbbf-c258-4c83-88b3-15dfdd908f98>

⁹⁴ <https://www.nature.com/articles/s41598-023-36756-3>

moderate and high-emission scenarios, driven primarily by higher temperatures during key growth stages and moisture stress (DSSAT baseline 1984–2013 vs. future climate scenarios).⁹⁵ Independent climate-maize yield vulnerability assessments (such as those from the International Maize and Wheat Improvement Center and WUR’s agro-climate impact syntheses) also project that maize yields in East Africa could fall by up to ~28 % by mid-century in high-potential zones under high emissions, with medium zones facing ~10 – 16 % reductions as heat and water stress intensify without adaptation.⁹⁶

39. **Horticulture:** High-value crops like tomatoes and mangoes are particularly sensitive to the water and temperature extremes of this cluster. Tomato production in Kenya’s semi-arid and transitional counties (e.g., Makueni, Laikipia, and Bungoma) experiences yield collapses exceeding 50 - 60 % during severe drought and heat episodes, leading to farm-gate price surges of 200–300 % as supply contract.⁹⁷ Temperature anomalies exceeding 32 °C suppress tomato flowering and fruit set, while moisture deficits during the March–May season cause recurrent production failures in open-field systems.⁹⁸ For mangoes, baseline post-harvest losses remain severe, as the average shelf life of a fresh mango fruit is only 10–12 days, leading to 25–40 % post-harvest losses along the value chain.⁹⁹
40. **Hydrological Context:** Cluster 2 counties exist in a critical "middle-ground" hydrologically, facing significant flood risks in the west while simultaneously contributing to water stress in central regions.
- **Lake Victoria Basin:** Counties in this cluster (like Kisumu, Kakamega, Busia) are part of this basin, which is projected to see a significant intensification of rainfall. Hydrological modelling using CMIP5 reveals a 5% – 267% increase in river discharge variability across sub-catchments of the Nzoia, Yala, and Kuja Rivers, which feed into Lake Victoria.¹⁰⁰ This is linked to more frequent and intense convective rainfall events, amplified by anthropogenic climate forcing and Lake Victoria’s moisture recycling processes, leading to increased flood risks such as the 2020 Lake Victoria floods.¹⁰¹
 - **Rift Valley Basins:** Cluster 2 counties such as Laikipia are upstream users of the Ewaso Ng’iro North River Basin, hosting high-value horticulture that relies heavily on irrigation. This activity, combined with projections of persistent droughts, contributes to water stress and over-abstraction, threatening the viability of irrigated agriculture in the region. The intensive water use by commercial farms, especially for irrigation in horticulture, has been shown to reduce streamflow by up to 32%.¹⁰²
41. The CSTs proposed for Cluster 2 are designed to protect and enhance productivity in these commercially important systems. They include precision irrigation, solar-powered cold storage, improved dairy feeding and housing systems, and integrated pest management technologies. These interventions strengthen the adaptive capacity of value chains, stabilize rural incomes, and prevent large-scale economic losses that would ripple through national markets. Table B.1.3 provides the quantitative justification, linking the specific climatic hazards projected for Cluster 2 to the estimated productivity and income gains expected from the implementation of the selected CSTs.

Table B.1.3. Cluster 2 - Quantitative Hazards, Impacts, and CST Justification

Zone / Livelihood	Hazard	Quantitative Impact	CST Response (from FP Portfolio)	Expected Quantitative Gain
Temperate Highland & Savanna (Cash Crops: Tea)	Rising Temps & Erratic Rainfall (Drought, hail)	Projected: Climate change is projected to <i>reduce</i> tea suitability in	Climate-resilient seeds (new drought-tolerant tea clones,	Heat- and drought-tolerant cultivars increase leaf yields by 18–25% under +2°C scenarios. ¹⁰⁵

⁹⁵ [Modeling the impact of climate change on maize \(*Zea mays* L.\) production at the county scale in Kenya](#)

⁹⁶ <https://agmip-ie.wenr.wur.nl/kenya1>

⁹⁷ [Farmers' perspectives on factors limiting tomato production and yields in Kabete, Kiambu County, Kenya](#)

⁹⁸ <https://pmc.ncbi.nlm.nih.gov/articles/PMC7938145/>

⁹⁹ <https://erepository.uonbi.ac.ke/handle/11295/160610>

¹⁰⁰ <https://www.mdpi.com/2073-4441/11/7/1449>

¹⁰¹ <https://egusphere.copernicus.org/preprints/2023/egusphere-2023-1827/>

¹⁰² <https://egusphere.copernicus.org/preprints/2024/egusphere-2024-2382/egusphere-2024-2382.pdf>

¹⁰⁵ [Frontiers | Combating Climate Change in the Kenyan Tea Industry](#)

		traditional low- & mid-altitude zones. ¹⁰³	e.g., TRFK 371/3 and TRFK 430/90). ¹⁰⁴	
			Shade trees and agroforestry	Reduce canopy temperature by 2–3 °C and improve yields by 12–20%. ¹⁰⁶
Temperate Highland & Savanna (Staple Crops: Maize)	Rainfall Variability	Projected (DSSAT): Trans Nzoia and Uasin Gishu (core maize-basket counties), projected yield declines of 9–22% by 2050 under RCP4.5 and up to 28% under RCP8.5 if no adaptation occurs. Temp rises >2 °C and rainfall variability reduced grain-filling periods and kernel weight. ¹⁰⁷	Improved drought- and heat-tolerant maize varieties	Substituting conventional seeds with drought-tolerant genotypes recovered ~70% of yield losses projected for Trans Nzoia. ¹⁰⁸ Hybrid use reduced climate-induced losses from 26% to below 10% by 2050. ¹⁰⁹
			Adjusted planting dates and optimized sowing windows	DSSAT simulations in found that sowing 1–2 weeks before rainfall onset raised yields by 10–18% in Trans Nzoia. ¹¹⁰
			Conservation agriculture (CA): minimum tillage, residue retention, and crop rotation	DSSAT simulations showed up to 32% yield improvement under CA maize–cowpea systems in East Africa. ¹¹¹ 15–25% yield increases in Embu County when CA was combined with improved varieties. ¹¹²
			Solar-powered irrigation systems.	DSSAT analysis found that light irrigation (50 mm at silking) prevented kernel abortion and improved yields by up to 42%. ¹¹³
Temperate Highland & Savanna (Livestock: Dairy)	Rising Temps & Heat Stress	Projected: Heat stress (temps > 22°C) reduces feed intake and milk yields (3–5% decline per °C). ¹¹⁴	Improved livestock management (heat-tolerant breeds, shade/cooling).	Heat-tolerant Sahiwal cows maintain milk production at 30–32°C, mitigating heat-stress losses in dairy zones. ¹¹⁵
Semi-Arid & Transitional (Horticulture:		Climate extremes (drought and heat spikes) routinely trigger	Efficient irrigation and water management	Optimized drip irrigation scheduling in Kitui County increased tomato yields by 58%

¹⁰³ [Frontiers | Combating Climate Change in the Kenyan Tea Industry](#)

¹⁰⁴ [Kenya's tea sector under climate change: An impact assessment and formulation of a climate-smart strategy](#)

¹⁰⁶ [Effects of shade and shelter on the microclimate of tea](#)

¹⁰⁷ [Modeling the impact of climate change on maize \(Zea mays L.\) production at the county scale in Kenya](#)

¹⁰⁸ [Modeling the impact of climate change on maize \(Zea mays L.\) production at the county scale in Kenya](#)

¹⁰⁹ [Impact of Future Climate Change on Maize Yield and Contributions of Adaptation Measures on Yield Alleviation Change: Comparison in Similar Typical Area of Kenya and Northwest China](#)

¹¹⁰ [Assessment of Maize Yield Response to Agricultural Management Strategies Using the DSSAT–CERES-Maize Model in Trans Nzoia County in Kenya](#)

¹¹¹ [DSSAT modelling of conservation agriculture maize response to climate change in Malawi](#)

¹¹² <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0241147>

¹¹³ [Impact of Future Climate Change on Maize Yield and Contributions of Adaptation Measures on Yield Alleviation Change: Comparison in Similar Typical Area of Kenya and Northwest China](#)

¹¹⁴ [Modeling heat stress effects on dairy cattle milk production in a tropical environment using test-day records and random regression models - ScienceDirect](#)

¹¹⁵ [Frontiers | Heat stress effects on milk yield traits and metabolites and mitigation strategies for dairy cattle breeds reared in tropical and sub-tropical countries](#)

Tomatoes, Mangoes)	High Rainfall Variability & Extreme Heat	tomato price surges of 200–300% due to yield collapses exceeding 50–60% in Kenya’s main production zones. ¹¹⁶ Projected: Worsening water scarcity (proj. drop to 293 m ³ /capita by 2050). ¹¹⁷		and water-use efficiency by 37% compared to flood irrigation. ¹¹⁸ Irrigation during dry spells prevented 40–60% yield losses common in rain-fed systems. ¹¹⁹
			Drought- and heat-tolerant varieties	Three tomato Kenyan-adapted varieties were tested under water-stress conditions and found that Cal J and Kilele F1 outperformed local cultivars by 35–42% in yield retention at 60% irrigation levels. ¹²⁰
			Greenhouse and shade-net cultivation	Smallholder greenhouse adoption in Sotik County doubled tomato yields (average 6.8 t/ha → 13.4 t/ha) while cutting water use by 42%. ¹²¹ Greenhouse systems mitigated rainfall variability impacts, stabilizing seasonal yields even during drought. ¹²²
			Mulching and soil moisture conservation	Field trials in Makueni and Kiambu showed that mulching improved fruit yield by 18–25% and delayed soil drying by 3–5 days. ¹²³
			Crop rotation and integrated nutrient management	Rotation with legumes (beans, cowpeas) improved soil fertility and reduced root-knot nematodes, leading to 12–20% higher yields. ¹²⁴
All Cluster 2 Zones (Mitigation Co-benefit)	Biomass Dependency & Deforestation	Current: Over 90% of the rural population relies on solid biomass for cooking. ¹²⁵	Systems for clean cooking (Biogas digesters, solar cookers).	Biogas Digesters: Save 1,856 kg of fuelwood per household/year. ¹²⁶ Solar Cookers: Can save 1 tonne of wood per cooker annually. ¹²⁷

¹¹⁶ [Farmers' perspectives on factors limiting tomato production and yields in Kabete, Kiambu County, Kenya](#)

¹¹⁷ https://ncpd.go.ke/wp-content/uploads/2025/07/5.-ICPD30-Policy-brief_Climate-change.pdf

¹¹⁸ [Effect of quantity and frequency of irrigation on growth characteristics and soil water balance of tomatoes in greenhouse: case study of Kitui county](#)

¹¹⁹ [Analysis of factors influencing tomato farmers' willingness to adopt innovative timing approaches for management of climate change effects in Taita Taveta County, Kenya](#)

¹²⁰ <https://ir-library.ku.ac.ke/server/api/core/bitstreams/27b0cfc5-042f-4312-a106-b08e9a7f8ebe/content>

¹²¹ <https://cdn.epratrustedpublishing.com/article/202508-03-023825.pdf>

¹²² <https://www.theartsjournal.org/index.php/site/article/download/1948/891>

¹²³ <https://www.tandfonline.com/doi/abs/10.1080/17565529.2017.1411241>

¹²⁴ <https://www.theartsjournal.org/index.php/site/article/download/1948/891>

¹²⁵ [WHO publishes new global data on the use of clean and polluting fuels for cooking by fuel type](#)

¹²⁶ [The potential of biogas technology in fuelwood saving and carbon emission reduction in Central Rift Valley, Ethiopia - PMC](#)

¹²⁷ [SCI x TEALEAVES Case Study: Cooking with the Power of the Sun: Solar Cookers International](#)

Cluster 3 (Low Vulnerability)

42. The 10 percent allocation to this cluster is a targeted, strategic investment aimed at reinforcing the resilience and sustainability of Kenya's agri-food value chain. Although the 13 counties in this cluster have the highest adaptive capacity and relatively lower climate risk, they play a pivotal role in national food systems and export competitiveness. These counties host much of the country's agro-processing, logistics infrastructure, and high-value crop production, including coffee, fruits, and vegetables for export.
43. The priority in this cluster is long-term climate-proofing of key economic sectors. The focus is on strengthening value-chain efficiency, enhancing private-sector participation, and promoting low-carbon, bankable technologies that yield measurable mitigation and resilience co-benefits. For example, modelled scenarios show that targeted investments in energy-efficient cold chains, low-emission processing facilities, and renewable-powered irrigation systems could reduce post-harvest losses by up to 25 percent while cutting emissions intensity by 15–20 percent.¹²⁸
44. **Hydrological Context:** Cluster 3 counties are unequivocally the upstream users and form Kenya's primary Water Towers. Water management decisions and abstractions in this cluster have direct, critical impacts on the downstream counties in Cluster 1.
- **Tana River Basin:** The headwaters for Kenya's largest river are located in Cluster 3 counties (Nyeri, Meru, Embu, Nyandarua). This region not only supplies the nation's hydropower dams but is also the principal water source for peri-urban areas like Nairobi, which faces a projected drop in per-capita water availability to 293 m³ by 2050, far below the 1,000 m³ scarcity threshold.
 - **Ewaso Ng'iro North Basin:** The headwaters of this basin are also hosted by Cluster 3 counties (Nyandarua, Meru). Intensifying irrigation and water abstractions in this upstream zone are a primary cause of the river running dry downstream, which directly threatens the livelihoods of Cluster 1 pastoralists in Isiolo and Samburu who depend on its flow. Studies show that upstream irrigation schemes in Nanyuki, Timau, and Meru areas divert substantial volumes during dry seasons, leaving little flow for downstream users.¹²⁹ Hydrological models further indicate that unregulated abstraction upstream diminishes dry-season flow by over 60%, worsening the vulnerability of downstream ecosystems and human populations.¹³⁰
 - **Rift Valley Basins:** Cluster 3 counties like Nakuru are upstream centers for high-value horticulture. Their high-water demand for irrigation contributes significantly to water stress and over-abstraction in a region already threatened by projections of persistent droughts. Hydrological analyses show that the cumulative effect of water extraction and changing precipitation patterns could substantially reduce surface water availability, making the Rift Valley one of Kenya's most water-stressed agricultural regions.¹³¹
45. The CSTs prioritized for Cluster 3 include solar-powered processing equipment, climate-resilient packaging and storage systems, and digital climate risk management platforms. These interventions enhance competitiveness, attract private co-financing, and demonstrate strong financial returns suitable for scaling through blended finance instruments. Table B.1.4 presents the quantitative justification, showing how interventions in Cluster 3 strengthen value-chain resilience, generate significant mitigation co-benefits, and underpin Kenya's broader food security and green growth objectives.

Table B.1.4. Cluster 3 - Quantitative Hazards, Impacts, and CST Justification

Sector / Livelihood	Hazard / Sectoral Risk	Quantitative Impact	CST Response (from FP Portfolio)	Expected Quantitative Gain
Cash Crops (Highland Coffee)	Rising Temps & Drought	Current: The 2021 drought cut farmers	Shade trees and agroforestry	Integrating Grevillea or Albizia shade trees reduces maximum canopy temperatures by 3 - 4 °C

¹²⁸ [UNEP & FAO's 2022 Sustainable Food Cold Chains](#)

¹²⁹ [Water Scarcity and Conflicts: A Case Study of the Upper Ewaso Ng'iro North Basin](#)

¹³⁰ [Assessment of Drought Occurrence and its Impacts on Rural Livelihoods in the Upper Ewaso Ng'iro Basin, Kenya](#)

¹³¹ https://www.preprints.org/frontend/manuscript/e04dd34e55a79e3bc41851e34b2595f2/download_pub

		coffee output by up to 80%. ¹³² Projected: Potential >50% loss of suitable <i>C. arabica</i> land by 2050. ¹³³		and improved cherry yield by 28 - 45% under drought. ¹³⁴ Shaded plots yielded ~20% more and maintained higher bean quality under high THI (>70). ¹³⁵
			Supplemental irrigation and water harvesting	Irrigation using on-farm reservoirs or check dams can prevent yield declines of 40–60% during dry years. ¹³⁶ Deficit irrigation pre-exposure increased drought tolerance and sustained 30% higher yields in Robusta and Arabica coffee. ¹³⁷
			Climate-resilient varieties (Batian, Ruiru 11, and drought-tolerant hybrids)	Batian and Ruiru 11 varieties outyielded SL 28 by 42–55% during drought years in Kiambu. ¹³⁸
Peri-urban Agriculture (Nairobi, Nakuru)	Water Scarcity	Projected: National per-capita water availability to drop to 293 m ³ by 2050 (far below the 1,000 m ³ scarcity threshold). ¹³⁹	Integrated water management (Rainwater harvesting - RWH, drip irrigation).	High ROI: A Nairobi study demonstrated that a 3 m ³ RWH tank increased household agriculture yield from 44 kg to 103 kg (+134%). ¹⁴⁰
Households (Rural/Peri-urban) (Mitigation Co-benefit)	Biomass Dependency	Current: 75% of all Kenyan households rely on solid biomass (wood, charcoal), driving deforestation.	Systems for clean cooking (e.g., Biogas digesters).	Biogas saves 1,856 kg fuelwood/HH/year and mitigates 2.75 tCO ₂ eq annually. ¹⁴¹

Contribution to National Climate Goals

46. This Programme is not a standalone project but a key implementation vehicle for Kenya's national climate strategy. Its interventions are directly aligned with Kenya's Nationally Determined Contribution (NDC, 2020 Update)¹⁴² and National Climate Change Action Plans (NCCAP) 2023-27. The Programme's mitigation co-benefits target Kenya's primary GHG emissions sources, which are dominated by Agriculture, Forestry and Land Use (AFOLU) at ~73% of total emissions, followed by Energy (~20%) and Waste (~5%). As Table B.1.5 demonstrates, the Programme's activities map directly to the specific sectoral targets within Kenya's NDC.

Table B.1.5. Contribution of CST Portfolio to Kenya's NDC

CST Category / Technologies	Contribution to Kenya's NDC (2020 Update)
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¹³² [Revitalizing Kenya's Coffee Industry by Addressing Production Gaps for Sustainable Growth – KIPPRA](#)

¹³³ <https://www.frontiersin.org/journals/sustainable-food-systems/articles/10.3389/fsufs.2024.1431849/full>

¹³⁴ <https://e-space.mmu.ac.uk/629098/>

¹³⁵ <http://ir.haramaya.edu.et/hru/handle/123456789/7220>

¹³⁶ <https://ir-library.ku.ac.ke/server/api/core/bitstreams/d28bbeb0-6324-4421-95ea-b42a543ad479/content>

¹³⁷ <https://www.mdpi.com/2073-4395/13/3/674>

¹³⁸ <https://ir-library.ku.ac.ke/server/api/core/bitstreams/5ad43f3a-3872-4b75-a273-01baaaf184d8/content>

¹³⁹ https://ncpd.go.ke/wp-content/uploads/2025/07/5.-ICPD30-Policy-brief_Climate-change.pdf

¹⁴⁰ <https://www.mdpi.com/2073-4441/13/20/2920>

¹⁴¹ [The potential of biogas technology in fuelwood saving and carbon emission reduction in Central Rift Valley, Ethiopia - PMC](#)

¹⁴² [Kenya's second NDC \(2031-35\)](#)

<p>Agriculture (Practices & Inputs) (e.g., Resilient seeds, agroforestry, improved livestock management)</p>	<p>Contributes to Agriculture Target (9.7 MtCO_{2e}): Directly implements "<i>Climate smart agriculture (CSA)</i>" and "<i>Efficient livestock management</i>," enhancing soil carbon and reducing enteric fermentation emissions.</p> <p>Contributes to Forestry Target (20.8 MtCO_{2e}): Agroforestry directly supports the NDC priority of achieving 10% tree cover.</p>
<p>Energy & Water (Solar/Wind) (e.g., Solar pumps, Rooftop PV for Cooperatives)</p>	<p>Contributes to Energy Target (48.1 MtCO_{2e}): Directly implements the NDC priority of "<i>Increasing of renewables in the electricity generation mix</i>" by displacing grid or diesel power. This sector has the largest abatement potential.</p>
<p>Processing (Energy Efficiency) (e.g., HEMs, VSDs, heat recovery for Cooperatives)</p>	<p>Contributes to Energy Target (48.1 MtCO_{2e}): Directly implements the NDC priority of "<i>Enhancement of energy and resource efficiency across the different sectors.</i>"</p>
<p>Clean Cooking (e.g., Biogas digesters, solar cookers, pellet stoves)</p>	<p>Contributes to Clean Cooking Target (2.8 MtCO_{2e}): Directly addresses this specific sectoral target by reducing "<i>reliance on... non-sustainable biomass fuels.</i>"</p>
<p>Waste Management / Energy (e.g., Bio-composting units, biomass waste-for-energy)</p>	<p>Contributes to Waste Target (0.8 MtCO_{2e}): Directly implements "<i>Sustainable waste management systems</i>" by capturing methane from organic waste.</p>
<p>Water Management (e.g., Drip irrigation, water harvesting, farm ponds)</p>	<p>Contributes to Adaptation Priority: Central to the NDC's primary goal of adaptation. These technologies are explicitly prioritized in the National Adaptation Plan (NAP) to build resilience against water scarcity.</p>

Current capacity to anticipate and respond to climate change

47. Kenya's capacity to anticipate and respond to climate change is challenged by a deep-seated vulnerability, particularly within its agricultural sector. The nation's primary drivers of vulnerability are its high dependency on rain-fed agriculture (which accounts for 98% of Kenya's agricultural output) and the low adaptive capacity of its rural populations. This vulnerability is compounded by systemic limitations in current coping strategies, which are proving insufficient to manage the accelerating impacts of climate change.
48. **Financial Limitations:** The single greatest barrier to adaptation is a systemic failure in the financial market. While enabling policies exist, the financial and logistical investments needed to implement them are absent.
49. **Market Failure:** The current adoption of Climate-Smart Technologies (CSTs) is rated "Low" due to limited adoption and low penetration. The financial analysis for the CST Facility confirms that such a Programme is "*not financially viable without GCF intervention*".
- **Lack of Suitable Finance:** Farmers and MSMEs face high upfront costs, high interest rates, and strict collateral requirements. Lenders perceive this segment as high-risk, with a higher risk of non-repayment. This is reflected in the fact that only 15% of Kenya's potential irrigable area has been developed, indicating a massive gap in financing for basic adaptation technologies.
 - **Global Disparity:** This gap mirrors a continental trend, where African countries in 2021/22 accessed just 3.3% of total global climate finance, with private sector contributions at a mere 1.2%.
50. **Technology and Practice Limitations:** Current practices are increasingly failing to cope with climate volatility.
- **Ineffective Coping Mechanisms:** Traditional coping strategies, such as pastoral migration, are being overwhelmed. The 2020-2022 drought, for example, resulted in the loss of 2.6 million livestock. The 2017 drought caused a 35-50% drop in national milk output in open-grazing systems. These events demonstrate that traditional practices are insufficient to prevent catastrophic asset loss.
 - **Unsustainable Practices:** The widespread reliance on solid biomass (wood and charcoal) for cooking by over 90% of the rural population is an unsustainable practice. It is a primary driver of deforestation, which degrades watersheds, reduces soil moisture retention, and exacerbates the impacts of both droughts and floods.
51. **Low Technical Capacity:** There is a significant gap in the technical capacity of both end-users and financial intermediaries.

- **At the User Level:** Many farmers and MSMEs lack a deep understanding of CST techniques, best practices, and the underlying science of climate resilience. This includes a limited ability to assess the feasibility and cost-effectiveness of different CST options, preventing them from making informed investment decisions.
- **At the Institutional Level:** Financial institutions themselves lack the necessary frameworks to support climate-focused lending. Current assessment mechanisms are not adequately tailored for CST projects and struggle to capture the specific climate-related benefits. This makes them unable to accurately price risk or value the adaptation and mitigation returns of such investments.

52. **Policy and Logistical Limitations:** While Kenya has a robust policy framework, including the National Adaptation Plan (NAP) 2015-2030 and National Climate Change Action Plans (NCCAPs), the capacity to implement these plans is limited. The NAP clearly prioritizes actions like "*water harvesting for crop production*" and promoting "*drought-tolerant traditional high-value crops*". However, the policy goals have not been matched by the financial and logistical investments required to execute them at scale, leaving a significant gap between national strategy and on-the-ground reality.

Proposed climate solutions

53. The Programme's interventions will address climate change adaptation and mitigation issues across Kenya's hardest-to-reach MSMEs and smallholder farmers, while targeting the systemic barriers identified in the Theory of Change (ToC). It will scale-up:
- Financial solutions, including a Climate Smart Technology Facility (CST) and risk mitigation mechanisms, to enable access to affordable concessional financing for climate-smart technologies (CSTs);
 - Technical and digital tools, such as the CAFI tool and climate risk assessment frameworks, to improve climate impact measurement, guide low-carbon investments, and strengthen adaptive capacity;
 - Knowledge and market systems, including training, climate information dissemination, and formulation of enabling policies, to build capacity, enhance CST adoption, and ensure sustainability;
 - Value-chain and gender-inclusive interventions, to reduce emissions from energy, agriculture, and water use through adoption of solar-powered and clean technologies, improved market linkages, and targeted support for women and youth. This integrated approach, enabled by partnerships, concessional lending, digital platforms will result in enhanced climate resilience, reduce GHG emissions, and improved equity outcomes, particularly for underserved regions and vulnerable groups. A detailed linkage between barriers, activities, outcomes, and assumptions is presented in the Theory of Change diagram.

Related Projects and Interventions

54. Kenya has mobilized a diverse portfolio of climate finance initiatives from international and domestic sources, targeting MSMEs, agriculture, and climate-smart technologies (CSTs). The proposed GCF Programme complements these efforts by addressing persistent gaps in adaptation finance, concessionality, lack of focus on micro businesses and smallholders and enabling environments — particularly for underserved groups such as women, youth with no access to CST financing.
55. While Kenya benefits from a range of climate and SME financing facilities - including those from IFC, Proparco, and BII - these programs are fundamentally different from the GCF CST Programme in their design, risk appetite, and target beneficiaries. Most operate on commercial or semi-concessional terms and focus on bankable SMEs, corporates, or formal enterprises with established credit histories. Their eligibility criteria, pricing structures, and risk tolerance exclude the hardest-to-reach borrowers - namely, informal MSMEs and smallholder farmers in climate-vulnerable regions.

Organization / Programme approval year	Use of Funds	Difference with CST Facility	Beneficiaries	Complementarity with the CST Facility
World Bank – KCSAP / 2017 ¹⁴³	Climate-smart agriculture practices, extension, soil and water conservation	KCSAP does not have ASAL prioritization, no blended finance or de-risking instruments for lending to create sustainable proof of concept, no CST	Smallholder farmers	CST Facility finances CST adoption for MSMEs and smallholders using a clustered vulnerability approach (50% and more for ASALs), providing

¹⁴³ <https://www.kcsap.go.ke/>

		financing for MSMEs. Does not include cluster-based prioritization based on climate vulnerability.		concessional loans and guarantees.
World Bank – DRIVE / 2021 ¹⁴⁴	Livestock insurance, pastoral value chains, drought resilience	The Programme focuses on livestock insurance, not CSTs, no MSME lending and concessional, no technology adoption finance	Pastoralists in ASALs	CST Facility supports CSTs for cooperatives and MSMEs in ASALs, complementing DRIVE’s resilience and insurance interventions with finance for technologies
EIB – Agriculture Value Chain Facility (KAVCF) / 2019 ¹⁴⁵	Commercial loans to agribusinesses and cooperatives	The Programme has commercial terms only in contrast to CST Facility, no concessional or guarantees to micro-enterprise or smallholder, no ASAL targeting for CST adoption.	Agribusiness SMEs	CST Facility targets hardest-to-reach micro-enterprises and smallholders with concessional and guarantees, especially in Cluster 1 ASALs, filling the gap left by EIB’s commercial SME focus
UNEP / GEF – FARM Programme (Financing Agrochemical Reduction and Management) – 2024 ¹⁴⁶	Global Programme to reduce harmful pesticides and plastics; catalyzes regulatory and financial frameworks for safer agriculture; implemented in Kenya among other countries	Focuses on reducing agrochemical use, not CST adoption. Does not have a lending programme for MSMEs or farmers with concessional or guarantees, no ASAL prioritisation or vulnerability-based allocation.	Farmers, regulators, value chain actors across participating countries including Kenya	CST Facility complements by financing climate-smart technologies (solar irrigation, water management, clean energy) that reduce reliance on harmful inputs, aligning with FARM’s environmental objectives.
GIZ – Agriculture & Climate Programmes in Kenya (various, 2017–2025) ¹⁴⁷	Technical assistance, market development, capacity building, innovation support in agriculture, water energy food systems, and clean cooking	GIZ programmes do not provide loans, guarantees, or blended finance, no CST adoption finance, and vulnerability-based cluster targeting with ASAL prioritisation.	Farmers, cooperatives, youth, innovators, county governments	CST Facility complements GIZ by providing concessional finance and guarantees to MSMEs and smallholders for CST adoption, operationalizing the technical and policy work GIZ supports.

56. Despite the breadth of development partner activity in Kenya, no existing Programme provides sustained, scalable financing with focus on Micro businesses and farmers, along with SMEs for CSTs adoption ensuring sustainable private sector participation. Current initiatives focus on technical assistance, policy support, community-level investments, or commercially priced SME lending, but none mobilize blended finance with concessional passed to the end users, de-risk private lending, or create market linkages for CST adoption. CST Facility demonstrates strong additionality as none of the existing programmes targets ASAL counties through a structured, vulnerability-based allocation model, nor do they address the absence of structured finance in these regions where climate impacts are most severe and financial exclusion is highest.

¹⁴⁴ <https://projects.worldbank.org/en/projects-operations/project-detail/P176517>

¹⁴⁵ [EUR 50 million scheme to transform long-term investment in African agriculture](https://www.thegef.org/projects-operations/projects/11686)

¹⁴⁶ <https://www.thegef.org/projects-operations/projects/11686>

¹⁴⁷ <https://www.giz.de/en/regions/africa/kenya>

57. The GCF CST Facility Programme fills this critical gap by offering deep concessionality tailored for each Cluster, including low-interest, no additional collateral, and easier access loans for high-risk borrowers' group, and technical assistance, tailored specifically for underserved most vulnerable borrowers to promote CST adoption. It enables access to CSTs such as clean cooking, solar irrigation, and regenerative agriculture solutions that are often too risky coupled with high cost for micro loans and simply unprofitable for FIs to support.
58. Moreover, the GCF Programme embeds gender-responsive mechanisms, such as preferential credit terms for women and youth, and inclusive capacity-building, which go beyond portfolio-level gender targets seen in other facilities. It also supports technical assistance, enabling environment reforms, and CST dissemination, which are not core components of the other programs.
59. The GCF has already paved a way for programs in Kenya to support MSMEs or farmers, pastorals. However, the CST Facility is critically different:

Table B.1.7: Synergies and distinct differences with existing GCF programmes in Kenya for agriculture

FP Number and Title	Use of Funds	Difference with CST Facility	Beneficiaries	Complementarity with the CST Facility
Giz / FP103 Promotion of Climate-Friendly Cooking: Kenya and Senegal / 2019–2026 / Grant	Scale-up of improved cookstove markets; production, marketing, adoption	<ol style="list-style-type: none"> 1. The GIZ Programme does not provide loans to MSMEs and farmers for clean cooking to mobilize private finance and players 2. The Programme to be finished this year 3. not focusing on MSMEs and Cooperatives 	Rural households, ICS producers	CST Facility complements by financing clean cooking systems for MSMEs and farmers beyond household-level ICS and can benefit from lessons learned and network to promote more CSTs.
IUCN / FP113 TWENDE: Towards Ending Drought Emergencies – Kenya's ASALs / 2020–2027 / Grant	Ecosystem-based adaptation in rangelands; landscape planning, restoration, and climate-resilient livelihoods	<ol style="list-style-type: none"> 1. 11 ASAL counties focused on rangeland ecosystems 2. FP focus on Livestock, rangeland restoration, water management, ecosystem governance 3. Short term 4. No use of credits to create proof of concept for private sector 5. FP113 works through community and county-level institutions 	Pastoralists, ASAL communities	CST Facility complements by financing CSTs for farmers and MSMEs in ASALs, supporting uptake of technologies in restored landscapes
IFAD / FP220 ARCAFIM: Africa Rural Climate Adaptation Finance Mechanism / 2023-2030 / Grant, loan	Concessional loans and technical assistance to support climate adaptation in agriculture and food systems	<ul style="list-style-type: none"> - No focus on the hardest-to-reach, most underserved populations with limited or no access to financing; eligibility criteria do not embed mechanisms to ease financial access through guarantee –will leverage existing bankable beneficiaries. - No focus on ASALs - Fisheries a not included - Does not include mitigation CSTs such as renewable energy and energy efficiency solutions for cooperatives. - Lacks a strategy to mainstream women in CST adoption through concessional interest rates or guarantee mechanisms. 	Rural MSMEs, smallholders, agri-MSMEs	CST Facility complements by targeting high-risk, underserved MSMEs and farmers in Kenya's ASALs with CSTs and guarantees

		<ul style="list-style-type: none"> - No inclusive agenda targeting youth participation or benefit. - Technical assistance (TA) does not incorporate market linkage support, which is critical for sustainable CST supply chains. - Does not promote integration of climate impact assessment into lending practices. 		
<p>FAO / FP255 Transforming Livelihoods through Climate Resilient Agricultural Value Chains – Kenya / 2025-2031 / Grant</p>	<p>Climate-resilient, low-carbon agricultural value chains in Lake Victoria Region Economic Bloc (LREB)</p>	<ul style="list-style-type: none"> - CST Facility will support only fisheries which are not in scope of the FAO Programme. - FAO is not providing loans and not aiming MSMEs. -CST spans for 10 years while FAO has only 6 years in implementation 	<p>Smallholder farmers, agri-food cooperatives</p>	<p>CST Facility aim to leverage implementation insights of the program to agricultural value chain.</p>
<p>IFAD / FP269 DalMA: Dairy Interventions for Mitigation and Adaptation 2025-2023 Loan Guarantee</p>	<p>Climate-resilient and low-emission dairy sector transformation; access to finance, technologies, and services</p>	<ul style="list-style-type: none"> - Only for dairy production, does not have cross-sectoral CST exposure - Does not utilize GCF guarantee to de-risk lending to high-risk, informal borrowers 	<p>Smallholder dairy farmers, cooperatives, SMEs, women and youth</p>	<p>CST Facility does not aim dairy specifically but sustainable livestock management</p>

60. The CST Facility by KCB Bank is structurally and strategically distinct from all existing GCF-funded agriculture and food security programmes in Kenya. Unlike FP103, which focuses on household-level cookstoves without engaging MSMEs or cooperatives, the CST Facility mobilizes private finance for productive-use clean cooking systems tailored to MSMEs and farmers. FP113 (TWENDE) emphasizes ecosystem restoration in ASALs but lacks a credit-based proof-of-concept for private sector engagement. In contrast, the CST Facility embeds concessional loans and guarantees to unlock access for high-risk, underserved borrowers - including informal MSMEs and farmers - especially in ASAL counties. It also integrates gender-responsive financing and youth inclusion mechanisms absent in FP220 (ARCAFIM), which targets bankable agribusinesses without prioritizing ASALs, fisheries, or mitigation CSTs.
61. To ensure complementarity and avoid duplication, the CST Facility will **exclude interventions in Lake Victoria counties except for fisheries**, recognizing FP255’s focus on crop value chains in that region. It will also **exclude dairy CSTs**, respecting FP269’s dedicated scope on dairy sector transformation. Unlike grant-based programmes such as FP255 and FP205, the CST Facility deploys blended finance - including guarantees - to de-risk lending to informal and underserved actors. It spans agriculture, water, energy, and clean cooking, with embedded market linkages, climate impact assessment in lending, and technical assistance to strengthen CST supply chains. This positions the CST Facility as a scalable, inclusive, and technology-driven model that fills critical gaps in Kenya’s climate finance landscape. Such limitations will be embedded in eligibility criteria to be embedded in operations manual for CST Facility.

62. In summary, while other facilities contribute to Kenya's climate finance landscape, none are structured to deliver the depth of adaptation impact, concessionality, and inclusion required to serve the GCF CST programme's target group. Without GCF's intervention, these high-impact, high-risk segments would remain excluded from formal finance and climate resilience pathways.

Government-Led Initiatives on Climate Risk in Financial Markets

63. Kenya has taken significant steps to integrate climate risk into financial sector governance:

- **Climate Risk Disclosure Framework (2024)**¹⁴⁸: Issued by the Central Bank of Kenya (CBK), this draft framework guides commercial banks in disclosing climate-related risks and aligning with global standards such as IFRS S2 and TCFD.
- **Kenya Green Finance Taxonomy (2025)**¹⁴⁹: Developed with support from the European Investment Bank, this taxonomy helps financial institutions classify economic activities based on climate alignment, supporting low-carbon transition.
- **Guidance on Climate-Related Risk Management (2021)**¹⁵⁰: CBK's directive under the Banking Act requires banks to embed climate risk into governance, risk management, and disclosure practices.

64. These initiatives are foundational for the GCF programme's enabling environment component, which will support financial institutions in operationalizing these frameworks through capacity building, toolkits, and CST-aligned credit products. Despite the breadth of climate finance in Kenya, several persistent gaps remain:

- **Limited adaptation finance**: Most initiatives prioritize mitigation or general SME support, with insufficient focus on adaptation-specific technologies and services.
- **Inadequate concessionality**: Existing credit lines often have high interest rates, short tenures, or collateral requirements unsuitable for MSMEs and smallholders.
- **Weak enabling environment**: Few programmes support capacity building, or standard-setting for CSTs, sectoral partnership for climate impact assessment and knowledge dissemination.
- **Gender and youth inclusion**: While some initiatives target women and youth, few embed gender-transformative approaches or track disaggregated outcomes.
- **Fragmented delivery**: Lack of coordination across initiatives limits scalability and replication of successful models through knowledge dissemination, establishment of CSTs access, and providing proof of concept.

65. The CST Facility Programme complements and enhances existing efforts by:

- Providing blended finance (grants, concessional loans, guarantees) to de-risk adaptation investments for underserved hardest-to-reach MSMEs and farmers, who would not be able to access CSTs and its financing.
- Strengthening the enabling environment through creating market linkage, capacity building, and revision of CST standards, promoting climate impact tools.
- Embedding gender-responsive design and tracking outcomes through disaggregated indicators.
- Focusing on adaptation technologies such as solar irrigation, drought-resilient seeds, and clean cooking solutions.
- Catalyzing private sector engagement by demonstrating bankable models and unlocking co-financing for future programs through knowledge sharing,

B.2 (a). Theory of change narrative and diagram (max. 1500 words, approximately 3 pages plus diagram)

Present the theory of change (ToC) that contains a goal statement and describes how the proposed project/programme will contribute towards the goal statement by using results chain links from activities, outputs, to outcomes. By referring to the sample ToC diagram template available in the guidance note, present a ToC diagram (approximately 1 page) which visually represents the same logic in the narrative description. The ToC diagram and narrative may include a wide range of co-benefits¹⁵¹ as applicable in the context of the project/programme.

¹⁴⁸ [Central Bank of Kenya publishes climate risk disclosure framework](#)

¹⁴⁹ [Highlights of the CBK green finance taxonomy & climate risk disclosure framework for the banking sector](#)

¹⁵⁰ https://climate-laws.org/document/central-bank-of-kenya-guidance-on-climate-related-risk-management_87b2

¹⁵¹ GCF categorizes co-benefits into six areas which are: environmental, social, economic, gender, adaptation (relevant for pure mitigation projects) and mitigation (relevant for pure adaptation projects). Further guidance is available in the funding proposal (FP) guidance note.

Note all co-benefits will need to be further elaborated in section D.3 (sustainable development potential) and correspondent co-benefit indicators should be provided under section E.5 (project/programme specific indicators).

The theory of change should also include any relevant barriers (social, gender, fiscal, regulatory, technological, financial, ecological, institutional, etc.) that need to be addressed as well as risks and assumptions. Note that the assumptions can be elaborated further in sections E.3 (GCF outcome level: reduced emissions and increased resilience) and E.5 (project/programme specific indicators) for each relevant indicator, as appropriate.

66. MSMEs and farmers are the backbone of Kenya's economy, playing a crucial role in food security, income generation, and rural development. They contribute approximately one-quarter of the country's Gross Domestic Product (GDP), account for 70% of rural employment, and generate 65% of exports and 60% of foreign exchange earnings¹⁵². MSMEs are vital drivers of economic growth and employment, providing livelihoods for millions and fostering innovation across various sectors¹⁵³. Supporting their adoption of Climate-Smart Technologies (CSTs) is essential for achieving Kenya's Updated NDC¹⁵⁴ by significantly contributing to both climate change mitigation and adaptation outcomes aiming to abate GHG emissions by 32% by 2030 through a low carbon and climate resilient development pathway. This Programme supports climate agenda in the agricultural, water and waste management, energy, and industrial sectors in line with the Updated NDC, which are identified as both highly vulnerable to the adverse impacts of climate change and key sectors for reducing greenhouse gas emissions. Adoption of CSTs will support the most vulnerable MSMEs and farmers to enhance their adaptive capacity to manage climate risks and build resilience, while simultaneously contributing to mitigation efforts to limit exacerbating climate change. Furthermore, focusing on the hardest-to-reach groups of beneficiaries promotes equitable and sustainable development by empowering vulnerable populations, enhancing climate-resilient livelihoods, and fostering inclusive, low-emission economic growth.
67. The CST facility program is designed to drive systemic change through the widespread adoption of CSTs by the most vulnerable – hardest-to-reach MSMEs and farmers in the agricultural, energy, energy efficiency in manufacturing, water, and waste management sectors. Systemic change will be achieved by addressing key barriers faced by hardest-to-reach MSMEs and farmers and leveraging opportunities for transformational climate action, promoting low-emission, climate-resilient, and sustainable development through the financial sector. By enhancing the financial and technical capacities of the targeted beneficiaries, this program aims to enhance resilience in agricultural production and water management, reduce GHG emissions through the deployment of clean and energy-efficient technologies, and foster overall climate-compatible sustainable development.

Risks and barriers to CSTs adoption by the most vulnerable MSMEs and farmers in Kenya

68. The proposed Program aims to overcome significant risks and barriers that currently hinder the scaling up of CST finance and practices in Kenya. They represent significant obstacles to achieving sustainable agricultural development and climate change resilience in the country. They include:
69. MSMEs and farmers in Kenya face a complex and interconnected web of barriers that significantly hinder the adoption of Climate-Smart Technologies (CSTs). These barriers span economic, market, technological, and gender domains, each presenting unique challenges that must be addressed to unlock the potential of CSTs for climate action and sustainable development.

B.1 - Financial barriers

70. Economic barriers constitute a major impediment, particularly for MSMEs and farmers in regions like Turkana, Mandera, Samburu, Garissa, and West Pokot, where poverty levels are high and access to resources is limited, included in the list of marginalized counties by the Government of Kenya. These barriers manifest in several ways:
71. **B.1.1 - Limited access to climate-focused CSTs financing:** A core challenge is the lack of access to finance specifically tailored for climate-related investments. Financial institutions in Kenya often perceive agricultural lending as inherently risky due to factors like rainfall variability, pest infestations, and market fluctuations. This risk perception is often more pronounced when it comes to financing CSTs, as lenders may lack familiarity with these technologies and their potential returns. As the World Bank policy note on Kenya's agriculture highlights, farmers across Africa struggle to access credit from formal financial intermediaries due to various factors that increase the

¹⁵² [transforming the MSME industry in Kenya](#)

¹⁵³ <https://sdgs.un.org/publications/micro-small-and-medium-sized-enterprises-msmes-and-their-role-achieving-sustainable>

¹⁵⁴ <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC210108/>

perceived risk of agricultural lending¹⁵⁵. This limited access to finance disproportionately affects smallholder farmers and MSMEs, who lack the capital to invest in CSTs upfront. Kenya's climate finance landscape reveals that only KES 243.3 billion (USD 2.4 billion) flowed to climate-related investments in 2018, far below the estimated KES 465 billion per year needed to meet its climate goals¹⁵⁶.

72. **B.1.2 - Financing terms remain not adjusted for the most vulnerable MSMEs and farmers with high cost, and prohibitive collateral requirements:** Even when financing is available, the terms often make it inaccessible. High interest rates increase the overall cost of borrowing, rendering CSTs unaffordable for many farmers and MSMEs, especially those with already thin profit margins. Stringent collateral requirements, such as land titles or other valuable assets, effectively exclude a large segment of the target population, particularly micro businesses, smallholder farmers and women, who often lack formal ownership of such assets. Reports on gender and financial inclusion in Kenya emphasize that women face additional hurdles in accessing finance due to cultural norms, discriminatory practices, and limited financial products designed to meet their needs, acknowledging some progress achieved over the last years¹⁵⁷. This financial exclusion further limits their ability of hardest-to-reach MSMEs and farmers to invest in CSTs¹⁵⁸.
73. As this Programme aims to address the most vulnerable borrowers into three Clusters based on Composite Vulnerability Index developed based on IPCC framework (Annex 26), these are barriers to tailored CST financing per Cluster:

Table B.2.1 Barriers to CST financing by Cluster

Cluster	Clusters Profile	Key Barriers to CST Financing
Cluster 1 – Highest Vulnerability and Financial Exclusion:	Marginalized counties recognized under Kenya's Equalisation Fund, with highest food insecurity per IPCC risk assessment	<ul style="list-style-type: none"> - Extreme food insecurity and severe climate impacts on food production (Composite Vulnerability Index – Annex 26) - High collateral requirements by banks - No access to structured finance; reliance on informal, above-market lending mechanisms - High credit risk due to lack of collateral, limited banking history, and low agricultural returns - High administrative costs and security risks deter commercial banks - Gender inequality limits women's access to credit - No CST-specific financial products available - No concessional finance despite TA from other programmes
Cluster 2 – Moderate Vulnerability, Fragmented Access	Counties with improved climate resilience but continued exposure to severe climate risks; lack of tailored CST financing	<ul style="list-style-type: none"> - Limited access to affordable bank credit, especially for microenterprises as micro business is financed by MFBs rates with ~8% above commercial banks' rates¹⁵⁹ for SMEs - Farmers rely on fragmented SACCO financing, which lacks scale and CST alignment¹⁶⁰ - No tailored CST financial products
Cluster 3 – Financially Anchored but Product Gaps:	Counties with existing access to finance but no CST-specific instruments; used to roll out programme and foster peer-to-peer learning; restricted to hardest-to-reach borrowers	<ul style="list-style-type: none"> - Access to finance exists, but not tailored to CST needs to promote adoption - Standard tenors too short for CST adoption

¹⁵⁵ [Kenya Agricultural Risk Assessment](#)

¹⁵⁶ [The Landscape of Climate Finance in Kenya - CPI](#)

¹⁵⁷ [BEIJING+30 Kenya Country Report](#)

¹⁵⁸ <https://doi.org/10.1002/jid.3687>

¹⁵⁹ 2024 Survey Report on MSME Access to Bank Credit

¹⁶⁰ [Sacco Review – MSME Lending Shrinks](#)

74. **B.1.3 - Challenging risk/return profile of agricultural lending:** The inherent variability in agricultural yields and incomes, influenced by weather patterns, market volatility, and other factors, contributes to the perception of high financial risk associated with lending to the agricultural sector. Local financial institutions often view agricultural lending as a risky proposition, which limits their willingness to invest in agricultural initiatives, including CSTs, that could improve productivity and sustainability. Kenya's MSMEs have faced significant challenges in loan repayments, leading to elevated default rates. A survey conducted in June 2023 indicated that loan default rates among MSMEs surged from 42.8% to 60.7%. This escalation underscores the financial vulnerabilities within the sector. In contrast, digital lenders reported lower default rates, generally below 10%, with some maintaining non-performing loan ratios consistent with previous years. This disparity suggests that traditional lending institutions may face higher default risks compared to digital platforms. A study on agricultural lending in Kenya found that only 3.9% of loan portfolios were allocated to the agricultural sector, highlighting the reluctance of financial institutions to invest in farming due to perceived risks¹⁶¹.
75. Over 80% of Kenya's lands are classified as arid and semi-arid (ASAL), based on the relatively low amounts of annual rainfall received. Often marginalized, and with high rates of poverty, the 16 million people residing in these areas (~30% of Kenya's population) earn their living principally through a mix of pastoralism and small-scale agriculture. ASALs are particularly susceptible to droughts and flooding, and with increasing impacts from climate change, these areas are considered to be at risk of desertification. Moreover, a large percentage of ASALs have been degraded from deforestation and overgrazing, which further reduces the productivity of these lands, threatening food security, livelihoods and biodiversity¹⁶².
76. A study found that only 3.9% of loan portfolios in Kenya were allocated to agriculture, underscoring the financial sector's hesitancy to support farming. Additionally, MSMEs in Kenya have faced rising loan default rates, with traditional lenders reporting significantly higher default risks compared to digital platforms¹⁶³.
77. To address the high default rates and enhance access to credit for MSMEs, the Government of Kenya established the Credit Guarantee Scheme (CGS) in December 2020. The CGS aims to encourage lending institutions to extend credit to MSMEs under more favorable terms, such as reduced collateral requirements, longer loan tenures, and lower interest rates. As of June 2024, the CGS has facilitated access to over KES 6.29 billion in credit for 4,121 MSMEs across 46 counties, supporting approximately 25,886 jobs. Participating in financial institutions benefit from a risk-sharing arrangement with the government, which mitigates potential losses from loan defaults¹⁶⁴. And this Programme is in congruence the Government of Kenya joining this agenda.
78. **B.1.4 - No economy of scale and high transaction costs serving hardest-to-reach MSMEs and farmers:** The additional high transaction costs of delivering credit to smallholder farmers, especially in remote rural areas, present a significant barrier due to high admin costs and no economy of scale. These logistical and financial burdens restrict access to essential funding needed to implement CST technologies and practices effectively on the ground. The Kenya Credit Guarantee Scheme (CGS) was established to enhance access to credit for MSMEs, but high administrative costs and lack of economies of scale remain barriers to financing¹⁶⁵.

B.2 – Knowledge and technological barriers of CSTs

79. **B.2.1 - Limited awareness of CST benefits and lack of capacity among the most vulnerable:** MSMEs and farmers lack awareness of the benefits and potential of CSTs and how these technologies can improve their productivity, resilience, and profitability in the face of climate change¹⁶⁶. Furthermore, even with awareness, many lack the technical capacity and skills needed to operate, maintain, and troubleshoot these technologies¹⁶⁷. Farmers and MSMEs in underserved areas often lack knowledge and capacity about the economic, environmental, and

¹⁶¹ [Determinants of agri-lending in Kenya | Emerald Insight](#)

¹⁶² [Kenya \(ASAL\) | IUCN](#)

¹⁶³ [Appendix 1 - List Financial Institutions in Agriculture.pdf](#)

¹⁶⁴ [treasury.go.kekenyanews.go.kecgs.treasury.go.ke+1kenyanews.go.ke+1parliament.go.ke](#)

¹⁶⁵ [Credit Guarantee Scheme](#)

¹⁶⁶ [MSMEs' Climate Sound Technologies for Production Efficiency and Business Value in Kenya \(MSMEs CST- Kenya\) | Climate Technology Centre & Network | Tue, 01/14/2025](#)

¹⁶⁷ [Understanding factors affecting the uptake of climate-smart technologies in Kenya](#)

climate advantages of CSTs. Ongoing programmes by the World Bank¹⁶⁸, EIB¹⁶⁹ and others support farmers and MSMEs but do not focus on the most vulnerable – hardest-to-reach communities and special tailored technical assistance is required for CSTs adoption in the country with population of 52 million people¹⁷⁰.

80. **B.2.2 - Absence of data and tools for climate impact assessment of CSTs:** A critical technological barrier is the lack of readily available data and tools to help MSMEs and farmers select and implement the most appropriate CSTs for their specific contexts. There is often insufficient information on the cost-benefit analysis of different CST options, their potential climate impact in terms of adaptation and mitigation, and their operational feasibility under local conditions. This information gap makes it difficult for farmers and MSMEs, as well as financial institutions, to make informed investment decisions and hinders the widespread adoption of effective climate-smart solutions.
81. **B.2.3 - Insufficient information on cost-benefit analysis, climate impact potential, and operational feasibility for CSTs:** The absence of clear and accessible information on the cost-benefit analysis, climate impact potential, and operational feasibility of CSTs in specific contexts creates uncertainty and discourages investment. Farmers and MSMEs need reliable information to assess the economic viability and potential returns of different CST options¹⁷¹.
82. **B.2.4 - Farmers and MSMEs lack access to localized climate data.** Access to timely and localized climate data is crucial for farmers and MSMEs to make informed decisions about adopting resilient practices and technologies¹⁷². This includes information on rainfall patterns, temperature changes, extreme weather events, and other climate-related risks specific to their regions. The lack of accessible and understandable climate information limits their ability to plan and invest in appropriate CSTs that can help them adapt to the changing climate and build resilience in their operations.
83. **B.2.5 - Slow adoption of CSTs practices.** Even when awareness exists, the actual adoption of CST practices can be slow and uneven. Limited access to finance remains a significant barrier, particularly for smallholder farmers who may lack the resources to invest in new technologies. This financial constraint is often exacerbated by insufficient agricultural extension services, which play a crucial role in disseminating information about CSTs, providing technical assistance, and supporting farmers in implementing new practices. The inadequacy of these services is particularly pronounced in remote rural areas, where access to information and support is often limited, further hindering the adoption of CSTs.
84. **B.2.6 - Low technical capacity to structure, finance, and implement CST-oriented projects.** A major obstacle lies in the lack of comprehensive knowledge and skills among various actors within the agricultural sector. Many farmers, MSMEs, households, and even some individuals in supporting organizations lack a deep understanding of CST techniques, best practices, and the underlying science of climate resilience. This includes a limited ability to assess the feasibility and cost-effectiveness of different CST options, to structure and manage projects that incorporate CSTs, and to secure appropriate financing for these projects¹⁷³. The challenge is compounded by the fact that CSTs often require a holistic approach, integrating not only agricultural practices but also considerations for land use planning, water resource management, and sustainable livelihood strategies. Building this capacity requires targeted training and education programs that address the specific needs of different stakeholders.
85. **B.2.7 - Lack of climate impact and risk assessment framework for climate loans at FIs.** Current financial assessment mechanisms employed by institutions like KCB are not adequately tailored to evaluate the unique characteristics, risks, and impacts of lending to CSTs projects involving MSMEs and farmers. These existing mechanisms, often designed for traditional agricultural or business loans, struggle to capture the specific climate-related benefits, adaptation potential, and mitigation contributions of CSTs¹⁷⁴. This mismatch leads to challenges in accurately assessing project eligibility for climate financing, measuring their true contribution to national climate goals, and managing the distinct financial risks and opportunities associated with CST investments.

¹⁶⁸ <https://www.worldbank.org/en/news/press-release/2021/12/08/kenya-s-small-and-medium-enterprises-receive-a-100-million-pandemic-recovery-boost>

¹⁶⁹ [EIB Global and KCB Bank sign deal to support SMEs, youth and women](#)

¹⁷⁰ <https://data.worldbank.org/indicator/SP.POP.TOTL?locations=KE>

¹⁷¹ [42450-07fe0fe8fe77158b28da846c810f01f88.pdf](#)

¹⁷² [Climate Data Management Services | Kenya Meteorological Department](#)

¹⁷³ [Socio-economic, Institutional and Environmental Enablers and Barriers to Climate Smart Agriculture Adoption and Scaling in Kenya, Malawi and Nigeria](#)

¹⁷⁴ [15724-WB Kenya Country Profile-WEB.pdf](#)

86. **B.2.8 – Limited energy and digital access.** Many rural and remote regions face unreliable electricity supply and inadequate digital infrastructure, limiting their ability to access information, training, and financial services needed for CST adoption. Only 30% of rural households in Kenya have access to reliable electricity¹⁷⁵, with ASALs experiencing particularly severe energy deficits. Without sufficient energy infrastructure, MSMEs and farmers struggle to utilize essential technologies such as irrigation systems, post-harvest storage, and precision agriculture tools.
87. Similarly, the lack of digital connectivity further exacerbates these challenges. Over 40% of MSMEs in rural Kenya lack access to broadband internet, restricting their ability to engage in digital financial services, climate data analysis, and online markets¹⁷⁶. Digital exclusion prevents farmers from leveraging mobile banking services, accessing climate forecasts, and receiving agricultural extension support remotely. The gap in digital infrastructure also affects financial institutions' ability to conduct credit assessments for MSMEs, reinforcing barriers to CSTs financing.
88. **B.2.9 - Socio-cultural barriers:** A lack of understanding of the benefits of CSTs can stem from cultural norms, traditional practices, and limited access to education and information. Communities with lack of awareness about the potential advantages of new technologies or practices, they may be resistant to change driven by cultural habits and traditions¹⁷⁷. Limited technical training further exacerbates this issue, as farmers may lack the skills and knowledge needed to effectively implement and manage CSTs. Marsabit, Turkana, Samburu, Narok, Garissa, Mandera, and West Pokot in Kenya face significant socio-economic barriers, including high poverty rates, limited access to resources, and inequality¹⁷⁸: In Turkana an estimated 25% of children will never know what it means to have enough to eat, to grow and to thrive. Garissa, Mandera, and Wajir: Show a gender parity index (GPI) in favor of boys in primary education completion¹⁷⁹.

B.3 – Market linkage barriers

89. **B.3.1 - Limited market access:** Farmers, particularly those in remote areas, often face limited access to reliable markets for their produce. This lack of market access reduces the incentive to invest in technologies that could increase production, as farmers may struggle to sell their surplus. Poor infrastructure, inadequate storage facilities, and limited market information systems further exacerbate this challenge. Although importance of digital technologies in improving market access was underscored, but adoption remains low, with only 20-30% of farmers utilizing digital agricultural platforms¹⁸⁰.
90. **B.3.2 - High logistical costs for CSTs distribution to hardest-to-reach:** High logistical costs associated with transportation, storage, and processing of agricultural produce increase the cost of doing business and reduce profitability. These costs make it difficult for farmers and MSMEs to compete in the market and limit their ability to invest in CSTs. Transport inefficiencies significantly raise costs for distribution firms in Kenya. Studies indicate that transport costs in Kenya can be as high as 30-40% of the cost of goods, compared to the global average of 8-12%¹⁸¹. These elevated costs stem from poor route optimization and load inefficiencies, making CST distribution to remote areas financially unviable.
91. **B.3.3 - Lack of after-sales CSTs services:** The lack of adequate after-sales services, such as maintenance, repairs, and access to spare parts for technologies, creates uncertainty and discourages investment in CSTs. Farmers and MSMEs may be hesitant to adopt new technologies if they are concerned about the availability of technical support and the potential for costly breakdowns. Research on after-sales service strategies in Kenya highlights that poor maintenance and repair services negatively impact customer satisfaction and investment decisions¹⁸².
92. **B.3.4 - Geographical barriers:** The physical landscape in some regions of Kenya poses significant obstacles to the adoption of CSTs. Steep slopes, rocky landscapes, and uneven topography can make transportation difficult

¹⁷⁵ [Access to electricity, rural \(% of rural population\) - Kenya | Data](#)

¹⁷⁶ [Unsdg | Wired for Good: Digital Connectivity for a Sustainable Future](#)

¹⁷⁷ <https://www.iied.org/20681x>

¹⁷⁸ [Comparative clustering and visualization of socioeconomic and health indicators: A case of Kenya](#)

¹⁷⁹ [Education in Marginalized Communities](#)

¹⁸⁰ [Enhancing Market Access Through Digital Technologies Among Smallholder Farmers in Kenya – KIPPRA](#)

¹⁸¹ <https://sagepublishers.com/index.php/ijssme/article/viewFile/743/677>

¹⁸² [G2311034552.pdf](#)

- and costly, increasing the logistical challenges of delivering inputs, equipment, and technical support to farmers. These geographical constraints can also limit the types of CSTs that are feasible in certain areas and increase the costs of implementation. For example, accessing remote, mountainous regions with heavy machinery for terracing or irrigation infrastructure can be prohibitively expensive and logistically complex, where technical assistance and tailored finance solutions with patient capital are required. CST facility Programme identified these counties as affected by geographical barriers for market linkage to CSTs: North-Eastern Kenya, Northern Rift Valley (West Pokot, Turkana, Samburu), Boni Forest, Chalbi Desert (Marsabit County), Suguta Valley (Samburu/Turkana).
93. The geographical features of ASALs further compound these challenges, making access to inputs and technology difficult. Regions such as Loita Hills (Narok), Mt. Kulal (Marsabit), Suguta Valley (Samburu/Turkana), and the Northern Rift Valley (West Pokot, Turkana, Samburu) are characterized by steep slopes, rocky landscapes, and uneven topography, which create logistical hurdles for infrastructure development and agricultural investments. Additionally, remote areas like Lake Turkana Islands, Chalbi Desert, and Boni Forest face significant accessibility issues due to their distance from major urban centers. These geographical barriers increase transportation costs and limit the feasibility of climate-smart technologies (CSTs). For instance, road networks in North-Eastern Kenya are among the worst in the country, isolating communities and restricting trade opportunities¹⁸³.
94. Acknowledging financial exclusion of MSMEs, the Government of Kenya established the Credit Guarantee Scheme (CGS) in 2020, which has facilitated access to over KES 6.29 billion in loans for MSMEs (Ministry of Finance, 2024). However, regions with severe geographical constraints remain disproportionately affected by climate change and financial neglect. Addressing these disparities requires targeted interventions, including infrastructure investments, tailored financial instruments, and policy reforms to improve access to credit and CST adoption in ASAL communities.
95. **B.4 - Limited gender-responsive support in CST loan access:** Women in Kenya face persistent exclusion from climate-smart technology (CST) financing due to structural, institutional, and socio-cultural barriers. Despite their central role in agriculture and climate adaptation, women-led MSMEs are often unable to access CST loans due to lack of collateral, limited financial literacy, and discriminatory lending practices¹⁸⁴. According to the World Bank, women in low-income countries bear a disproportionate burden of climate impacts while having the least access to climate finance tools and decision-making spaces¹⁸⁵. In Kenya, this is compounded by gender gaps in land ownership and formal banking access, which restrict women's eligibility for credit products - even when they are primary agricultural producers. It is also critical to acknowledge that women and marginalized groups often face additional barriers to CST adoption¹⁸⁶. These may include limited access to land ownership, credit, and decision-making power within households and communities, as well as cultural norms that restrict their access to information and training opportunities. Addressing these socio-cultural barriers requires culturally sensitive and inclusive approaches that promote awareness, education, and empowerment¹⁸⁷.
96. Existing climate finance programs have not sufficiently addressed these gender gaps. For example, the World Bank-supported FLLoCA program¹⁸⁸ and other national initiatives have made progress in local climate action, but gender assessments show that women's access to climate finance remains limited due to weak institutional targeting and lack of gender-disaggregated budgeting. Moreover, most green finance flows in Kenya prioritize mitigation sectors like energy and transport, which are less accessible to women due to technical and asset-based entry barriers. This CST Facility directly addresses these shortcomings by embedding gender-responsive eligibility criteria, targeting women-led MSMEs in vulnerable counties, and leveraging GCF guarantees to de-risk lending to women borrowers. It aligns with Kenya's National Gender and Climate Change Action Plan and GCF's Gender Policy to ensure inclusive access and equitable benefit-sharing.

¹⁸³ [Kenya Construction and Infrastructure Projects Report 2024](#)

¹⁸⁴ https://africa.unwomen.org/en/what-we-do/economic-empowerment_africa/gender-responsive-climate-action-in-east-and-southern-africa#:~:text=Advancing%20gender%2Dresponsive%20climate%20policies,plans%2C%20climate%20financin g%20among%20others.

¹⁸⁵ <https://blogs.worldbank.org/en/climatechange/gender-smart-climate-finance-critical-progress-results-and-impact>

¹⁸⁶ <https://library.farafrica.org/storage/2023/04/FRR-Vol-720214-226.pdf>

¹⁸⁷ <https://www.worldbank.org/en/topic/girlseducation>

¹⁸⁸ <https://crawntrust.org/wp-content/uploads/2025/09/POLICY-BRIEF-on-gender-asses-flooca.pdf>

97. To tackle these challenges effectively, a comprehensive approach is necessary. This involves mobilizing appropriate capital, including concessional and patient funding, with de-risking tools to promote the financial solutions to the private sector alongside enhanced technical expertise, innovative financial tools, and efforts to fill knowledge gaps. By strategically addressing these barriers, this Programme aims to create a supportive environment conducive to widespread adoption of CST practices throughout hardest-to-reach MSMEs and farmers in Kenya. The Programme proposes specific activities aimed at fostering CSTs in Kenya. These include:
- **Component 1** - Establishment of dedicated blended finance CST Facility with de-risking tools for direct lending to MSMEs and farmers through KCB network and digital solutions
 - **Component 2** - Strengthening climate impact assessment and enabling CST Facility uptake
 - **Component 3** - Institutional capacity, partnerships, and knowledge systems for scaling up CST Facility adoption.
98. The CST facility Programme is built in the premises that **(Goal Statement): IF the inclusive adoption of Climate-Smart Technologies (CSTs) by the hardest-to-reach MSMEs and farmers - especially women and the most climate vulnerable groups - is scaled up in Kenya, THEN Kenya will advance its low-carbon, climate-resilient, and equitable development pathway, BECAUSE of enhanced resilience and reduced GHG emissions among hardest-to-reach MSMEs and smallholders in Kenya through scaled adoption of climate-smart technologies.** Together, these assumptions and enabling conditions form the foundation upon which the Climate Smart Credit Line (CST) facility Programme aims to transform Kenya's agricultural sector and spectrum of MSMEs activities into a more sustainable, resilient, and economically viable landscape. By addressing these factors, the Programme endeavors to overcome barriers and capitalize on opportunities to foster long-term agricultural development and environmental stewardship.
99. These activities and others are designed to create tangible outputs such as the establishment of a dedicated CST, the integration of climate risk assessments into KCB financial operations, the development of climate-smart lending tools, and the formulation of policies supporting sustainable technologies. Together, they aim to achieve outcomes including reduced greenhouse gas emissions, improved food security, enhanced livelihoods, and strengthened institutional frameworks for climate-resilient development in Kenya. The ToC diagram is presented below:

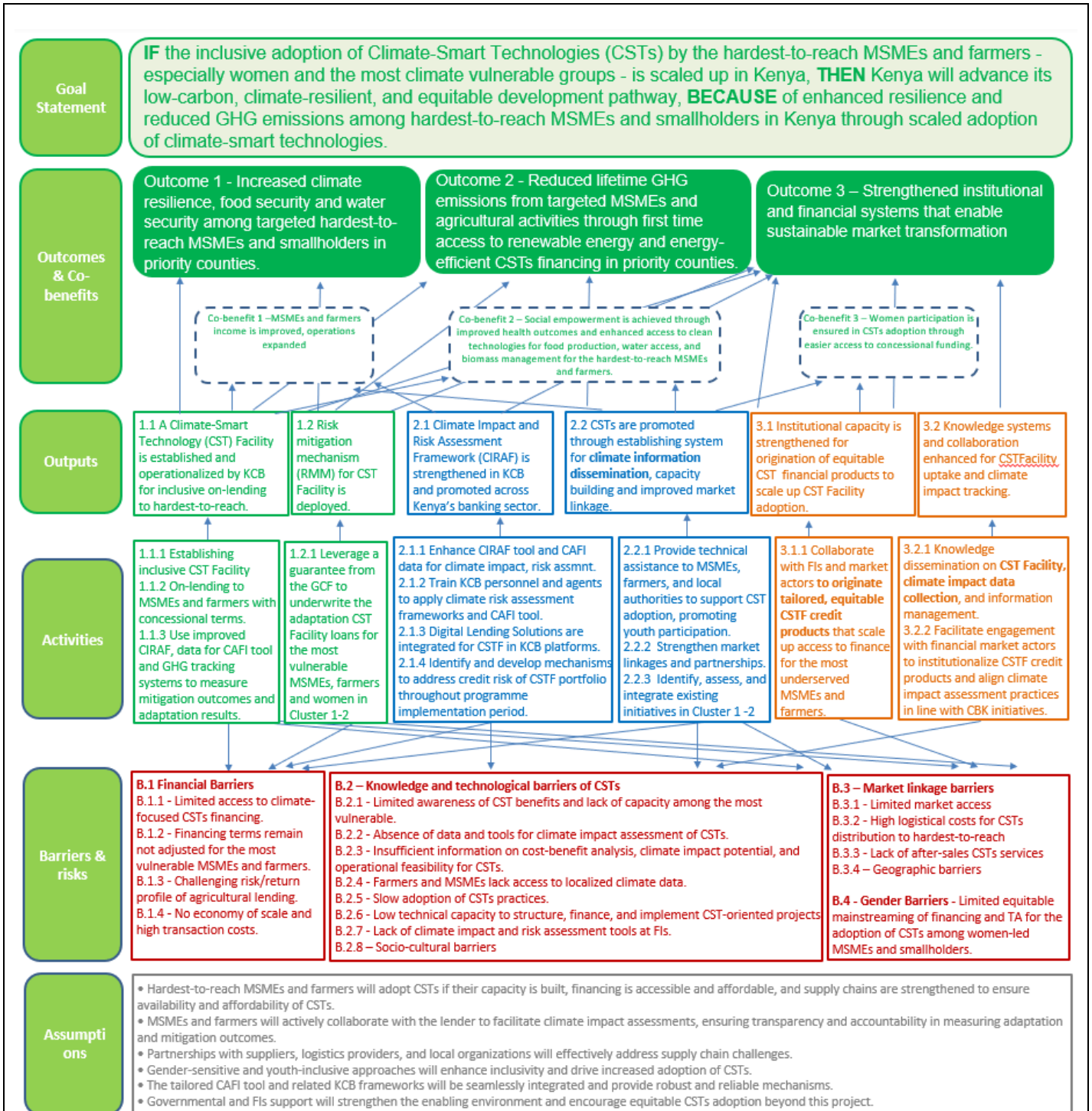


Figure 1: Theory of Change diagram for CST facility Programme

100. This theory of change addresses the barriers for CSTs adoption by the hardest-to-reach MSMEs and farmers as suggested in the Table B.2.2:

Table B.2.2: CST facility Programme outputs addressing barriers to adopt CSTs by hardest-to-reach MSMEs and farmers

CST facility Programme outputs	Barriers and risks addressed
Component 1 - Establishment of dedicated blended finance CST Facility with de-risking tools for direct lending to MSMEs and farmers through KCB network and digital solutions	

<p>Output 1.1 - A Climate Smart Technology Facility (CST) is established and operationalized by KCB for inclusive on-lending to hardest-to-reach.</p>	<p>B.1 - Financial barriers of lack of tailored financial solutions for the most vulnerable MSMEs and farmers to adopt CSTs will be overcome by easier access and lower security requirements for CST facility direct lending with lower cost</p> <p>B.2 – Knowledge and technological barriers of CSTs will be addressed by easier access to CSTs financing along with knowledge sharing about CSTs benefits and climate change risks management by CST agents for hardest-to-reach already affected by severe climate change impact.</p> <p>B.2.9 - Socio-cultural barriers will be tackled by tailored patient capital credit products with lower cost, i.e., attractive to adopt CSTs adoption. Also, gender inclusion will be promoted through better terms for women led and owned MSMEs.</p>
<p>Output 1.2 - Risk mitigation mechanism (RMM) for CST Facility is deployed.</p>	<p>B.1 - Financial barriers - The GCF guarantee will enable access to CST financing for MSMEs and farmers, who would not be able to access it otherwise, where climate change impacts are most severe and financing needs are most acute. Financial barriers stemming from the challenging risk–return profile of agricultural lending will be addressed through the GCF guarantee. Equalisation Fund¹⁸⁹ by the Government proves historical marginalization and development disparities as basic services among several counties While other programmes provide technical assistance, concessional CST financing is not yet available through commercial banks. The RMM will ensure access to CST financing for high-risk borrowers who would otherwise be excluded due to lack of collateral, limited banking history, and low returns on food production.</p> <p>B.2 – Knowledge and technological barriers of CSTs will be addressed by promoting CSTs financing for hardest-to-reach through existing KCB branch infrastructure and digital tools to raise awareness about de-risking tools and lower security requirements of CST facility in the form of the guarantee provided by the GCF for hardest-to-reach.</p> <p>B.3.4 - Geographical barriers + B.2.9 - Socio-cultural barriers will be addressed by de-risking tools where other FIs and private sectors players have high risk perception which would not allow to support hardest-to-reach MSMEs and farmers while promoting gender action and youth participation.</p> <p>B.4 – Gender barriers will be addressed by applying the RMM to all CST loans including women-led operations in counties with the highest gender inequality index¹⁹⁰ and the highest food security risk. Given that women often lack collateral and sufficient banking history, the RMM will enhance access to CST financing for women borrowers who would otherwise be excluded.</p>
<p>Component 2 - Strengthening climate impact assessment and enabling CST Facility uptake</p>	
<p>Output 2.1 - Climate Impact and Risk Assessment Framework (CIRAF) is strengthened in KCB and promoted across Kenya’s banking sector.</p>	<p>B.2 – Knowledge and technological barriers of CSTs will be addressed by enhanced CIRAF for CST facility credit products and by climate impact data collection to promote CSTs financing and climate risk management for hardest-to-reach by FIs.</p> <p>B.3.4 - Geographical barriers - through employment of KCB digital lending solutions with integrated climate impact monitoring.</p>
<p>Output 2.2 - CSTs are promoted through establishing system for climate information dissemination, capacity building and improved market linkage.</p>	<p>B.1 - Financial barriers of no economy of scale for private sector players to serve hardest-to-reach will be addressed through community and cooperative scale approach using digital solutions for direct lending and bulk CSTs supply.</p> <p>B.2 – Knowledge and technological barriers of CSTs – will be overcome through inclusive comprehensive capacity building and knowledge dissemination on climate risk management for hardest-to-reach MSMEs and farmers and CSTs supply chain to promote CSTs solutions.</p>

¹⁸⁹ [The Equalisation fund appropriation BILL,2025](#)

¹⁹⁰ <https://data.humdata.org/dataset/kenya-gender-inequality-index-per-county>

	<p>B.3 – Market linkage barriers will be solved by connecting CSTs supply chain with hardest-to-reach through outreach to promote CSTs and give simplified access to CST facility direct lending, by creating platform to connect demand and supply players, after-sale service, and disseminated CSTs proof of concept.</p> <p>B.2.9 - Socio-cultural barriers – overcoming change resistance through inclusive access to knowledge on climate risk management and promoting climate smart solutions for food security, water and waste management, use of RE and energy efficiency through approach of community leaders' endorsement¹⁹¹.</p>
<p>Component 3 - Institutional capacity, partnerships, and knowledge systems for scaling up CST Facility adoption</p>	
<p>Output 3.1- Institutional capacity is strengthened for origination of equitable CST financial products to scale up CST adoption.</p>	<p>B.2 – Knowledge and technological barriers of CSTs – will focus on building institutional capacity among financial actors to develop and operationalize CST-aligned loan pipelines, particularly for vulnerable and underserved communities. This includes gaps in tailoring credit products to CST adoption needs and integrating climate impact tracking into lending practices.</p> <p>B.4 - Gender uptake for CST financing barrier will aim to close the gap and create incentives to scale up equitable CSTs adoption by promoting women participation as per GAP.</p>
<p>Output 3.2 - Knowledge systems and collaboration enhanced for CST uptake and climate impact tracking.</p>	<p>B.2 – Knowledge and technological barriers of CSTs - by ensuring CST results and climate impact data will be disseminated among regulators and financial institutions to promote financial solutions for CSTs adoption in line with the CBK initiatives.</p>

101. The expected outcomes of CST facility Programme contribute to positive climate impact and socioeconomic development through:

- Reduced GHG emissions and enhanced resilience in the agricultural sector.
- Increased access to finance, financial inclusion, and improved risk management in agricultural lending promoting CSTs adoption in agriculture, water and waste management, energy, and energy efficiency sectors for Cooperatives working in food security.
- Shared knowledge and capacity created for CSTs for MSMEs and farmers with strengthened market linkage to CSTs.
- Knowledge dissemination, and enhanced institutional capacity to support the scale-up CSTs adoption.

102. Additionally, the Program aims to deliver the following co-benefits:

- **Co-benefit 1** - MSMEs and farmers income is improved, operations expanded through adoption of CSTs improving operations economy, efficiency and climate resilience to climate change risks.
- **Co-benefit 2** - Social empowerment and inclusive participation are achieved through improved health outcomes and enhanced access to clean technologies for food production, water access, and biomass management for the hardest-to-reach MSMEs and farmers.
- **Co-benefit 3** – Women participation is ensured in CSTs adoption through easier access to concessional funding with lower interest rate and de-risking tools of CST facility while aiming high participation in capacity building activities.

103. These outcomes and co-benefits underscore the Programme's holistic approach to fostering sustainable development, resilience to climate change, and inclusive growth within Kenya's agricultural sector.

Assumptions and enabling conditions

104. The success of the KCB program relies on several assumptions and enabling conditions.

- Hardest-to-reach MSMEs and farmers will adopt CSTs if their capacity is built, financing is accessible and affordable, and supply chains are strengthened to ensure availability and affordability of CSTs.
- MSMEs and farmers will actively collaborate with the lender to facilitate climate impact assessments, ensuring transparency and accountability in measuring adaptation and mitigation outcomes.

¹⁹¹ <https://www.iied.org/20681x>

- Partnerships with suppliers, logistics providers, and local organizations will effectively address supply chain challenges.
- Gender-sensitive and youth-inclusive approaches will enhance inclusivity and drive increased adoption of CSTs.
- The CAFI tool and related KCB frameworks will be seamlessly integrated and provide robust and reliable mechanisms.
- Governmental and FIs support will strengthen the enabling environment and encourage widespread CST adoption beyond this project.

B.2 (b). Outcome mapping to GCF results areas and co-benefit categorization

Fill in the GCF results area table below to map each project/programme outcome identified in section B.2(a) to the contributing GCF results area(s) by referring to the description of eight results areas provided in the guidance note.

Outcome number	GCF Mitigation Results Area (MRA 1-4)				GCF Adaptation Results Area (ARA 1-4)			
	MRA 1 Energy generation and access	MRA 2 Low-emission transport	MRA 3 Building, cities, industries, appliances	MRA 4 Forestry and land use	ARA 1 Most vulnerable people and communities	ARA 2 Health, well-being, food and water security	ARA 3 Infrastructure and built environment	ARA 4 Ecosystems and ecosystem services
Outcome 1 – Increased climate resilience, food security and water security among targeted hardest-to-reach MSMEs and smallholders in priority counties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outcome 2 - Reduced lifetime GHG emissions from targeted MSMEs and agricultural activities through adoption of renewable energy and energy-efficient CSTs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outcome 3 - Strengthened institutional and financial systems that enable sustainable market transformation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If any co-benefits have been identified in section B.2(a), fill in the Co-benefit table below to map each co-benefit to the corresponding category as defined in the FP guidance note.

Co-benefit number	Co-benefit					
	Environmental	Social	Economic	Gender	Adaptation	Mitigation

Co-benefit 1 - MSMEs and farmers income is improved, operations expanded	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Co-benefit 2 - Social empowerment is achieved through improved health outcomes and enhanced access to clean technologies for food production, water access, and biomass management for the hardest-to-reach MSMEs and farmers.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Co-benefit 3 - Women participation is ensured in CSTs adoption through easier access to concessional funding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B.3. Project/programme description (max. 2500 words, approximately 5 pages)

Define the project/programme. Describe the proposed set of components, outputs and activities that will be undertaken by the project/programme to attain the intended outcomes elaborated in Section B.2 (a). Please also elaborate how the project/programme activities will address the barriers described in Section B.2.

This section of the funding proposal should be consistent with sections C.2 (financing by component), E.5 (project/programme results level) and E.6 (project/programme activities and deliverables).

Referring to the feasibility study, describe why this set of interventions was selected instead of alternative solutions and how the project/programme can help unlock the needed support in a sustainable manner. Also identify trade-offs of the selected interventions, if applicable.

For Enhanced Direct Access (EDA) proposals and projects/programmes with financial intermediation (loans or on-granting), describe the selection criteria of the sub-project and types.

105. The Climate Smart Technology Facility (CST) facility is a blended finance program designed to provide concessional financing to the hardest-to-reach MSMEs and smallholder farmers in Kenya, the most vulnerable groups that were not be able to participate in the transition to low-carbon and climate-resilient development without unique concessional funding from the GCF and its technical assistance. The Programme will accelerate the adoption of CSTs to enhance climate resilience, food security, and water security while reducing GHG emissions through tailored credit lines with reduced costs and easier access coupled with capacity building for the vulnerable groups. The Programme ensures its sustainability through initiatives that among the hardest-to-reach, develop bank tools to monitor climate impact, support the streamlining of regulatory frameworks for CST adoption, and promote comprehensive knowledge sharing.

106. Therefore, the key objective of the Programme is to scale up equitable adoption of CSTs by the most vulnerable the hardest-to-reach MSMEs and smallholder farmers in agriculture, water and waste management, and energy sectors which will support Kenya updated NDC goals.

107. The CST facility Programme goal will be achieved through:

- Providing concessional and more accessible financing for CSTs adoption through KCB infrastructure of branches on a national scale and digital lending tools to hardest-to-reach MSMEs and farmers, with added

benefits for women participants in the form of a reduced interest rate - **Output 1.1 to establish a Climate Smart Technology Facility (CST).**

- De-risking lending for CSTs loans to borrowers including women, where food production activities are exacerbated by climate change impact, security and administrative costs challenges with no access to commercial banks financing due to high risk profile of the borrowers - **Output 1.2 to establish a Risk mitigation mechanism (RMM).**
- Expanding financial inclusion through digital lending and mobile-based solutions and strengthen climate risk assessment, monitoring, and reporting systems - **Output 2.1 to strengthen Climate Impact and Risk Assessment Framework (CIRAF).**
- Promoting CSTs through raising awareness and capacity building among hardest-to-reach MSMEs and farmers while improving market linkage to CSTs - **Output 2.2 for capacity building of MSMEs and farmers and strengthening market linkage.**
- Building institutional capacity for FIs for origination of equitable CST and knowledge dissemination for Programme sustainability - **Output 3.2 and Output 3.3 accordingly.**

Programme Financing and Structure

108. The CST facility will operate as a blended finance model, strategically combining various funding streams to maximize its impact. A cornerstone of this model is a \$15 million concessional loan from the GCF, complemented by a \$50M senior loan from KCB. Disbursement from the blended finance CST Facility to CST loans will be in the 50:15 ratio. To mitigate lending risks, particularly when reaching underserved markets, a \$20.3112 million GCF-backed guarantee mechanism will be implemented. Beyond direct financing, the facility will benefit from GCF and KCB grants for technical assistance and Programme implementation, ensuring robust program implementation and capacity building: \$8.332M from the GCF and \$3.26M from the KCB, \$11.60M in total.

109. Crucially, the success of the CST facility hinges on the active participation of MSMEs and smallholder farmers. They will contribute equity investments into CSTs as a down payment, demonstrating their commitment to adopting and expanding use of climate solutions. This equity contribution serves as a vital proof of concept, showcasing the practical viability and value of CSTs in their operations. This structure ensures optimal private sector leverage while maintaining concessional financing terms for targeted beneficiaries.

Target beneficiaries: hardest-to-reach MSMEs and farmers

110. CST facility will be accessible for the most vulnerable groups based on climate risks, geographical barriers, and economic limitations as listed in the Table B.2.3 representing groups of the Programme beneficiaries:

Table B.2.3: Definition of hardest-to-reach MSMEs and farmers for the CST facility Programme (must meet all criteria except No. 3 as applies only to players of Agricultural sector)

No	Hardest-to-reach groups by barriers	Risks and barriers (see B.1 and B.2 for more details)
1	MSMEs and farmers with no access to financing for CSTs adoption	Low-income MSMEs and farmers have limited credit access and face high borrowing costs, no credit history or lack of additional collateral (B.1.1 - Limited access to climate-focused CSTs financing, B.1.2 - Financing terms remain not adjusted to promote CSTs adoption, B.1.3 - Challenging risk/return profile of agricultural lending in B.2). Distance from urban centers or major transport corridors increases costs of CST delivery (B.3.4 Geographical barriers, B.1.4 - No economy of scale and high transaction costs serving hardest-to-reach).
2	Operating in sectors severely affected by climate change (Agriculture, Energy, Industry, Water and Waste management)	Increased flooding, prolonged droughts, extreme weather patterns disrupting food security, transport, infrastructure, energy access, industrial processes, and livelihoods (Section B.1).
3	Farming activities in arid and semi-arid lands (ASALs) – only applies to farmers	Water scarcity, poor soil fertility, harsh climate limiting productivity and access (B.1.3 - Challenging risk/return profile of agricultural lending in B.1).

4	Region with underdeveloped market access & linkages to CSTs	Reliance on intermediaries, low farmgate prices, inadequate storage, and inefficient supply chains (B.3 – Market linkage barriers in B.2).
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111. This Programme aims to have national coverage in Kenya with different credit terms for each of the three Clusters based on the barriers and climate vulnerability described. The has national coverage for the following reasons:

- A. National coverage imperative for KCB: As a partially state-owned commercial bank, KCB has a strategic and public mandate to promote inclusive development across all counties. Excluding regions from CST financing - particularly those with high vulnerability and limited access to structured finance - could undermine national equity goals and trigger political sensitivities.
- B. Learning curve on CST loan origination for hardest to reach: One of the Programme's key objectives is to enable CST loan origination for the hardest-to-reach populations, with priority given to the most challenging counties - those facing significant social and security barriers and elevated administrative costs.
- C. Complementarity with other programmes: A national mandate allows the Programme to complement other GCF, DFIs and Government initiatives, rather than being geographically constrained. This enhances strategic coherence and maximizes impact across counties.

112. This CST facility Programme will be dedicated to adoption of CSTs flashed out in the NDCs as that can be supported by MSMEs and smallholder farmers participation in agricultural, water and waste management, energy access and energy efficiency in manufacturing as listed in the Table B.2.4 below.

Table B.2.4: List of eligible CSTs for the CST Facility, non-exhaustive

Sector	CST (Climate Smart Technology)	Technologies Applicable by MSMEs and Farmers
1. Agriculture	1.1 Climate-resilient agricultural solutions - ARA2	<p>Working capital and investments for crop, livestock production, and fisheries with integration of climate resilient solutions:</p> <ul style="list-style-type: none"> • climate-resilient seeds • biochar application • agroforestry systems • intercropping • cover cropping • compost and organic fertilizers • conservation agriculture equipment (jab planters, mulching equipment, residue management tools, soil aerators) • IoT solutions for improved agricultural practices (soil moisture sensors, smart irrigation controllers, automated valve control, crop monitoring with drone imagery and analysis, field sensors (temperature, humidity, light), plant health monitoring devices, sensors for animals, automated feeding systems, environmental monitoring in barns, automated lighting and shading, etc.) • post-harvest management efficient technology (cold chains only with low-GWP or natural refrigerants, dryers, food processing equipment) • greenhouse systems (modular polycarbonate greenhouses, automated climate-controlled farming units, vertical farming infrastructure) • improved livestock management with methane emission reduction (dietary additives, forage quality improvement, feed efficiency optimization, genetic selection, animal health management, anaerobic digestion of manure, composting of manure, rotational grazing) • improved fisheries production techniques (Recirculating Aquaculture Systems (RAS), Integrated Multi-Trophic Aquaculture (IMTA), organic aquaculture, water quality management, feed management, health management, etc.) • climate-responsible food supply chain support (logistics - linkage of farmers with market) <p>Screening Criteria</p> <ul style="list-style-type: none"> • Feedstock must be sustainable and non-GHG-intensive • Must demonstrate additionality and measurable GHG reduction or resilience <p>Exclusions</p> <ul style="list-style-type: none"> • Conventional seeds/fertilizers

		<ul style="list-style-type: none"> • Generic compost • Livestock intensification • IoT for productivity only • Open burning/unmanaged animal waste <p>Operational Requirements</p> <ul style="list-style-type: none"> • Require proof of climate rationale (e.g., drought-resilient, GHG-reducing) • Only fund livestock/fisheries tech with proven methane/GHG reduction • Document measurable impact (tCO₂e, resilience metrics) • Require regular monitoring and reporting
	<p>1.2 Solar and wind-powered solutions and bio-composting in agriculture - MRA3</p>	<p>CSTs include:</p> <ul style="list-style-type: none"> • Solar and wind-powered cold storage units with low-GWP or natural refrigerants • hybrid solar dryers • solar and wind-powered grain processing mills • bio-composting units for fertilizer production • solar and wind water pumps for irrigation • solar and wind -powered livestock watering systems • solar and wind -powered incubators for poultry farming • solar and wind -powered milk chillers • solar and wind-powered lighting for farms and processing facilities • solar and wind -powered insect traps • solar and wind -powered fencing • small and wind-scale anaerobic digesters for biogas production (using agricultural waste) • vermicomposting systems • composting toilets (for sanitation and fertilizer production) • solar-powered sprayers for crop protection • other solar and wind powered solutions in agriculture without additional GHG emissions. <p>Screening criteria</p> <ul style="list-style-type: none"> • Solar/wind only; digesters/composting must use sustainable, non-food, non-deforestation feedstock • Must replace fossil/inefficient tech and reduce GHGs/increase resilience <p>Exclusions</p> <ul style="list-style-type: none"> • Tech using food crops • Deforestation • Open burning • Digesters with unsustainable biomass • Poorly managed composting toilets <p>Operational Requirements</p> <ul style="list-style-type: none"> • Only fund digesters/boilers using crop waste or sustainable by-products • Require documentation of feedstock source and sustainability • Monitor for ecosystem and water impacts, with ongoing verification
<p>2. Water Management</p>	<p>2.1 Integrated water management - ARA2</p>	<p>Integrated water management solutions:</p> <ul style="list-style-type: none"> • irrigation systems (drip irrigation systems, low-pressure irrigation systems, micro-sprinkler systems, etc.) • irrigation management and control (smart irrigation controllers, soil moisture sensors, water flow meters, etc.) • water harvesting and storage (rainwater harvesting tanks, farm ponds, subsurface water storage, etc.) • solar-powered water pumps • atmospheric water generation: • atmospheric water generators <p>Screening criteria</p> <ul style="list-style-type: none"> • Must not increase water stress or use fossil energy • Must be a significant upgrade over BAU and improve water efficiency/resilience

		<p>Exclusions</p> <ul style="list-style-type: none"> • Inefficient irrigation • Fossil-fuel pumps <p>Operational Requirements</p> <ul style="list-style-type: none"> • Require water efficiency and sustainability assessment • Monitor for groundwater depletion risks • Document adaptation impact (water saved, resilience) • Require regular assessment
3. Clean Cooking	3.1 Systems for clean cooking - MRA3	<p>Clean cooking systems including based on renewable energy including (firewood fueled stoves are not eligible for CST facility):</p> <ul style="list-style-type: none"> • steam cookstoves for social institutions • biogas cookstoves • solar cookers • biogas digesters of different scale • pellet stoves. <p>Screening criteria</p> <ul style="list-style-type: none"> • Feedstock must be sustainable (crop/livestock waste, not firewood/food crops) • Must replace traditional/inefficient stoves and reduce GHGs/improve health <p>Exclusions</p> <ul style="list-style-type: none"> • Firewood • LPG/diesel stoves <p>Operational Requirements</p> <ul style="list-style-type: none"> • Only fund tech using sustainable feedstock • Require health and climate impact documentation <p>Periodic verification of feedstock sustainability</p>
4. Waste Management / Energy	4.1 Biomass waste for energy - MRA3	<p>Acquisition/conversion of boilers that are designed to use biomass waste:</p> <ul style="list-style-type: none"> • grate biomass boilers • stoker biomass boilers • biomass collection and handling systems (baling equipment for agricultural residues, chippers/shredders for waste, storage facilities for biomass, biomass pre-treatment (dryers, briquetting machines. • cyclones for particulate matter removal. • heat distribution systems incl. piping for hot water distribution. • systems for biomass processing. <p>Screening criteria</p> <ul style="list-style-type: none"> • Only crop waste/sustainable by-products; no food competition/deforestation • Must be new/additional, reduce GHGs, not cause ecosystem harm <p>Exclusions</p> <ul style="list-style-type: none"> • Unsustainable biomass • Ecosystem harm • Open burning • Landfill gas without capture <p>Operational Requirements:</p> <ul style="list-style-type: none"> • Only fund tech using crop waste, not food crops or deforestation • Require lifecycle GHG assessment and sustainability certification, updated and reviewed regularly.
5. Energy	5.1 Renewable energy for Cooperative working in Food Security - MRA1	<p>Solar systems for Cooperatives working in food security:</p> <ul style="list-style-type: none"> • Rooftop solar on rooftops. • Ground-mounted solar for processing facilities. • Solar carports for clean energy and shade for vehicles. • Building-integrated photovoltaics (BIPV): building facades or windows. • Solar water heating. • Solar process heat for processing applications such as driers, etc. • Solar space heating to reduce heating loads in buildings.

		<ul style="list-style-type: none"> • Solar pumps. • Solar ventilation systems. • Solar lighting. • Solar PV for powering machinery, lighting, and HVAC systems. • Other solar PV powered technology application without additional GHG emissions. <p>Screening criteria</p> <ul style="list-style-type: none"> • Solar only; not for fossil extraction • Must replace fossil/inefficient tech, reduce GHGs/increase resilience <p>Exclusions</p> <ul style="list-style-type: none"> • Solar tech used for fossil extraction <p>Operational Requirements:</p> <ul style="list-style-type: none"> • Only fund tech replacing fossil or inefficient systems <p>Require documentation of GHG reduction and additionality, with periodic review</p>
6. Processing	6.1 Energy efficiency in Cooperatives working in Food Security processes - MRA3	<p>Energy efficiency interventions to offset high energy costs - installation of efficient motors, retrofitting/installation of equipment components to improve energy efficiency, installation of smart energy efficiency monitors and supporting ICT systems:</p> <ul style="list-style-type: none"> • High-efficiency motors. • Variable speed drives (VSDs) for pumps, fans, and compressors. • Motor management systems. • Heat recovery systems. • Process optimization technologies. • Upgrading to energy-efficient equipment with more energy-efficient models (e.g., boilers, furnaces, chillers). • Improved insulation. • Smart meters. • Energy management systems (EMS) software platforms. • Building automation systems (BAS). • Sensors and IoT devices. • Other cost-effective and energy efficient process technologies without additional GHG emissions. <p>Screening criteria</p> <ul style="list-style-type: none"> • Must be additional, not routine replacement • Must deliver substantial, measurable GHG reduction <p>Exclusions:</p> <ul style="list-style-type: none"> • Routine replacements • Upgrades without measurable climate benefits <p>Operational Requirements</p> <ul style="list-style-type: none"> • Only fund upgrades that deliver substantial GHG reduction

Programme description for Outputs and Activities

113. Component 1 of the Programme aims to establish a dedicated blended finance CST Facility within KCB Bank with de-risking tools for direct lending to MSMEs and farmers through KCB network and digital solutions. This component directly contributes to the Programme Outcomes:

- Outcome 1 - Increased climate resilience, food security and water security among targeted hardest-to-reach MSMEs and smallholders in priority counties
- Outcome 2 - Reduced lifetime GHG emissions from targeted MSMEs and agricultural activities through adoption of renewable energy and energy-efficient CSTs.

114. The CST facility will be established by KCB to provide concessional finance to the hardest-to-reach MSMEs and farmers as listed in the Table B.2.3 in Kenya, promoting the adoption of CSTs listed in Table B.2.4. The CST facility will address specific financial barriers such as high collateral requirements and high-interest rates and arrangement fee, which have historically hindered access to financing for climate-adaptive investments. The facility will be designed to de-risk lending, expand access to credit, and ensure affordability, for MSMEs and farmers, including women-led businesses.

115. The CST Facility will operate as a blended finance model, with the GCF contributing a USD15M concessional senior loan and KCB providing a USD50M senior loan, ensuring the long-term sustainability of climate finance for MSMEs and farmers (Output 1.1). Additionally, a USD 20.3112M GCF-backed guarantee mechanism (Output 1.2) will be implemented to reduce perceived credit risks, enabling KCB to lend to high-risk borrowers who traditionally lack access to formal financing and cover losses of CST facility due to non-repayment.

116. The CST Facility is designated to:

- A. Promote adoption of CSTs as listed in Table B.2.4 through credit products, technical assistance and market linkage
- B. Aim allocating at least 31% of CST financing to women-led enterprises to promote gender equality in climate finance through incremental lower interest rate for women managed and women led MSMEs.
- C. Ensure that 232 thousand CSTs are adopted through CST loans with over 112,145 direct and 823,547 indirect beneficiaries (935,692 in total) accessing climate finance while contributing to 3,928,727 tCO₂e GHG emission reduction over the 10-year project lifetime.
- D. Strengthen KCB's climate risk assessment, monitoring, and reporting systems, ensuring transparency and impact measurement.

Output 1.1 - A Climate-Smart Technology Facility (CST Facility) is established and operationalized by KCB for inclusive on-lending to hardest-to-reach MSMEs and smallholder farmers.

117. This output focuses on the design, implementation, and long-term sustainability of the Climate-Smart Technology Facility (CST Facility or Facility), ensuring that climate finance remains accessible, affordable, and scalable for high-risk, underserved market segments. CST Facility implementation will span Years 1 to 10, leveraging blended finance comprising a **USD 15M senior loan from GCF** and a **USD 50M senior loan from KCB**. This phase will operationalize the CST Facility, demonstrate proof of concept, and establish the enabling environment required for future scale-up.

118. To respond to this vulnerability landscape, the CST Facility allocates at least 50% of its total USD 65M budget - USD 32.5M - exclusively to Cluster 1, 40% for Cluster 2 – USD 26M, and not more than 10% for Cluster 3 – USD 6.5M.

Table B.2.5. CST Facility allocation

	Sector for CST	% of Budget	Cluster 1 (USD)	Cluster 2 (USD)	Cluster 3 (USD)	Total (USD)
1	Agriculture	45%	14,625,000	11,700,000	2,925,000	29,250,000
2	Solar-Powered Solutions in Agriculture	5%	1,625,000	1,300,000	325,000	3,250,000
3	Integrated Water Management	7%	2,275,000	1,820,000	455,000	4,550,000
4	Clean Cooking Systems	10%	3,250,000	2,600,000	650,000	6,500,000
5	Biomass Waste for Energy CSTs, bio composting	3%	975,000	780,000	195,000	1,950,000
6	For Cooperatives - Renewable Energy (Industrial)	25%	8,125,000	6,500,000	1,625,000	16,250,000
7	For Cooperatives - Energy Efficiency (Industrial)	5%	1,625,000	1,300,000	325,000	3,250,000
Total		100%	32,500,000	26,000,000	6,500,000	65,000,000
% out of Total 65M CST Facility			50%	40%	10%	10%

119. The Programme aims to deploy tailored financial solutions to address barriers for CST adoption by the hardest to reach, who would not be able to access financing otherwise without market distortion as described below per Cluster:

Table B.2.6. Barriers and financial solutions of CST Facility per Cluster

Cluster / Allocation	Counties	Population	Selection Criteria	Barriers addressed	Tool / Concessionalit y for end beneficiaries

1 At least US\$ 32.5M (50%)	19	17.4M (33%)	CVI Score > 0.5. These are the counties facing the most severe and complex vulnerability challenges in the nation.	Interventions required are foundational and multi-sectoral. This large and diverse cluster requires long-term "Resilience Building" programs that integrate humanitarian assistance with transformative development. For the ASAL counties, this means focusing on drought resilience, water infrastructure, and peace-building. For the coastal counties, the focus should be on managing coastal erosion and supporting blue economy livelihoods. For the Lake Victoria basin counties, intervention is limited to investments in flood management and sustainable fisheries are paramount.	Blended Loan + Guarantee targeting all CSTs / Lower than market interest rate, reduced fees, better access due to guarantee
2 / US\$ 26M (40%)	15	15.4M (29%)	CVI Score between 0.3 and 0.5. This group comprises counties with significant vulnerabilities that require targeted adaptation and resilience-building interventions.	Intervention will be focused on food security for the most underserved in this transitional group, the focus should be on strengthening social safety nets, improving public service delivery, expanding access to financial services, and promoting climate-smart agricultural extension to prevent them from slipping into higher vulnerability.	Blended Loan + Guarantee targeting all CSTs / Lower than market interest rate, reduced fees, better access due to guarantee
Not more than US\$ 6.5M (10%)	13	20.4M (38%)	CVI Score < 0.3. These counties exhibit comparatively higher resilience but still face climate risks that warrant attention, particularly in green growth and mitigation efforts.	The Programme will focus on the hardest to reach who would not be able to access financing within other facilities - counties and peri-urban zones where structured CST financing is absent and other on-lending programmes have limited reach or impact. This targeting approach ensures that GCF resources are deployed where they are most needed- in areas with high climate vulnerability, low financial penetration, and minimal overlap with existing interventions. Nairobi county is limited to peri-urban and underserved sub-counties within Nairobi.	Blended Loan Lower interest rates, reduced fees
Total US\$ 65M	47	53.2M			

Activity 1.1.1 - Establishing an inclusive CST Facility by blending \$15M loan from the GCF and \$50M loan from KCB for the adoption of CSTs by farmers and MSMEs.

120. This activity focuses on establishing an inclusive CST to drive the adoption of eligible CSTs among MSMEs and farmers. This will be achieved through a strategic blending of a \$15M loan from the Green Climate Fund (GCF) with a \$50M loan from KCB, creating a substantial pool of affordable financing for hardest-to-reach beneficiaries. The primary goal is to provide accessible credit products with concessional terms, enabling hardest-to-reach beneficiaries to invest in a broad range of qualified CSTs that can enhance their productivity and resilience to climate change tackling both mitigation and adaptation climate objectives. Operational framework document and guidelines for the CST facility and CST Facility Implementation and Operational Readiness Report will be financed by the GCF grant in the amount of USD 90K.

121. US\$65M CST facility aim to serve several sectors as defined in the Table B.2.4 and will be distributed among the Sectors and CSTs categories with 45% allocated to support Agriculture sector, 25% for Renewable energy for Cooperatives working in food security use, 10% Systems for clean cooking, 7% for integrated water management, 5% for energy efficiency for Cooperatives and solar-powered solutions and bio-composting in agriculture each, and 3% for Biomass waste for energy CSTs. More detailed breakdown for CSTs is listed in the Table B.2.7. The CST Facility allocates 52% of its funding to adaptation CSTs and 48% for mitigation result areas as per the GCF framework. CST Facility capital is allocated as 53% for micro & farmers with 47% to SMEs:

122. 53% Micro & Farmers → 79% for Adaptation CSTs | 22% for Mitigation CSTs

123. 47% SMEs → 78% for Mitigation CSTs | 22% for Adaptation CSTs

Table B.2.7: CST Facility allocation per Sector and CSTs Grouped by the GCF Result Areas

No	Sectors, subsectors	Climate Smart Technologies supported	GCF Result Area	% Allocation in total 65M facility	% Allocation in sector subcategory	Amount in USD million
1	Climate-resilient agriculture - crop breeding, cultivation, and regenerative agricultural technologies, climate-controlled agricultural infrastructure - ARA2		ARA2	45%		\$29.25
	Agriculture	Working capital for crop production with integration of climate resilient seeds, biochar, agroforestry system, intercropping, cover cropping, compost and organic fertilizers	ARA2		45%	\$13.16
	Agriculture	Conservation agriculture equipment (jab planter, mulching, residue management tools, soil aerators, etc.)	ARA2		10%	\$2.93
	Agriculture	Promotion of post-harvest management efficient technology including cold chains, dryers, and food processing equipment to reduce losses	ARA2		30%	\$8.78
	Agriculture	Greenhouse systems (modular polycarbonate greenhouses, automated climate-controlled farming units with or without IoT integration, vertical farming infrastructure)	ARA2		6%	\$1.76
	Agriculture	Application of climate resilient livestock production technics- support farmers on technologies for methane reduction.	ARA2		5%	\$1.46
	Agriculture	Improved fisheries production technics resilient to climate change, as well as incorporating innovative adaptation practices and technologies	ARA2		3%	\$0.88
	Agriculture	Support of climate responsible food supply chain for green production (logistics - linkage of farmers with market)	ARA2		1%	\$0.29
2	Solar-powered solutions and bio-composting in agriculture - MRA3		MRA3	5%		\$3.25
	Agriculture	Solar-powered cold storage units, hybrid solar dryers, solar-powered grain processing mills, etc.	MRA3		60%	\$1.95
	Agriculture	Bio-composting units for fertilizer production, etc.	MRA3		40%	\$1.30
3	Integrated water management - ARA2		ARA2	7%		\$4.55
	Water management	Solar-powered or other drip irrigation systems, smart irrigation controllers, etc.	ARA2		50%	\$2.28
	Water management	Rainwater harvesting tanks and other infrastructure	ARA2		25%	\$1.14
	Water management	Solar-powered atmospheric water generators (AWGs)	ARA2		25%	\$1.14
4	Systems for clean cooking (using renewable energy) - MRA3		MRA3	10%		\$6.50

	Clean cooking	Solar and steam powered cookstoves for social institutions	MRA3		30%	\$1.95
	Clean cooking	Household biogas digesters	MRA3		40%	\$2.60
	Clean cooking	Portable biogas cookstoves	MRA3		30%	\$1.95
5	Biomass waste for energy - MRA3		MRA3	3%		\$1.95
	Waste management / Energy	Acquisition/ conversion of boilers that are designed to use biomass waste.	MRA3		100%	\$1.95
6	Renewable energy for Cooperatives working in food security - MRA1		MRA1	25%		\$16.25
	Energy	Installation of solar systems for industrial processes other than agriculture and food production	MRA1		100%	\$16.25
7	Energy efficiency for Cooperatives working in food security - MRA3		MRA3	5%		\$3.25
	Processing	Energy efficiency interventions to offset high energy costs: installation of efficient motors, retrofitting/ installation of equipment components to improve energy efficiency, installation of smart energy efficiency monitors and supporting ICT systems	MRA3		100%	\$3.25
TOTAL					100%	\$65.00
Mitigation result areas					48%	\$31.20
Adaptation result areas					52%	\$33.80

124. The operationalization of the CST Facility Programme will be managed through the KCB's existing infrastructure along with its digital platform, the largest national footprint and regional presence in Kenya. to directly extend concessional CST blended financing to the hardest-to-reach MSMEs and smallholders. This approach ensures streamlined implementation, enhanced accountability, and accelerated uptake of CSTs across priority counties while working with the most underserved vulnerable communities. This initiative aims to significantly increase the accessibility of affordable finance for CST adoption, ultimately leading to positive climate and socio-economic impacts, with a strong emphasis on the project's Gender Plan to promote equitable benefits.

Activity 1.1.2: On-lending to MSMEs and farmers with concessional terms.

125. This activity is pivotal for the CST facility Programme implementation, directly addressing barriers faced by the hardest-to-reach MSMEs and farmers to ensure their equitable participation in CSTs adoption with significant climate impact. KCB will perform direct lending, using \$65M blended capital from the GCF (\$15M senior loan) and KCB (\$50M senior loan), leveraging its own extensive national branch network and its existing digital platforms for direct lending to these targeted beneficiaries. This ensures both concessional credit terms and application requirements are attractive for vulnerable hardest-to-reach groups, promoting the adoption of CSTs to meet the Programme climate and sustainability goals.

126. The Portfolio Loan Coverage for Sub-Loans will be maintained as follows:

- A. Cluster 1: Exposure shall represent at least fifty percent (50%) of the total Sub-Loan portfolio;
- B. Cluster 2: Exposure shall represent at least forty percent (40%) of the total Sub-Loan portfolio
- C. Cluster 3: Exposure shall not exceed ten percent (10%) of the total Sub-Loan portfolio;
- D. Agriculture (KeSIC Section A) Exposure shall represent at least fifty percent (50%) of the total Sub-Loan portfolio;
- E. Renewable Energy: Exposure shall not exceed ten percent (25%) of the total Sub-Loan portfolio; and
- F. Energy Efficiency: Exposure shall not exceed ten percent (5%) of the total Sub-Loan portfolio;

Eligibility Criteria for borrowers to participate in the CST Facility Programme:

127. Based on the Programme objectives to support Kenya updated NDC through CSTs adoption by hardest-to-reach MSMEs and farmers through tailored KCB concessional credits, the following eligibility criteria are defined for MSMEs and farmers seeking financing from the CST facility:

128. Mandatory eligibility criteria (must meet each criterion):

129. Business type and scale:

A. A Sub-Borrower under a Sub-Loan must either qualify as MSME (Micro, Small & Medium Enterprise) or as Farmer.

A.1. An “MSME” means a local enterprise that simultaneously meets both of the following criteria: (i) Annual Turnover and (ii) Number of Employees, in accordance with the classifications set out below

Category	Annual Turnover (KES)	Number of Employees
Micro Enterprise	Up to Kes 10Million (USD ~77,000)	Less than 10
SME	up to KES 1Billion (USD ~7.7 million)	10 to 49

A.2. A “Farmer” means any person or entity engaged in agricultural or fisheries production who falls within one of the following categories:

- i. Registered Producers:
An individual, cooperative, or producer organization formally registered as a farmer or fisher; or
- ii. Informal Producers:
An informal agricultural or fisheries producer with two (2) or more consecutive years of verified productive activity; or
- iii. Smallholders and Artisanal Fishers:
(a) A smallholder cultivating between 0.2 and 3.0 hectares of land; or
(b) An artisanal fisher operating a vessel of less than ten 10 metres in length, or engaged in aquaculture on less than one 1 hectare of production area.

130. Sector of operation: Funded Climate Smart Technology and process must represent at least one of the following sectors to contribute to the CST facility climate-smart objectives:

- i. agriculture (including but not limited to crop production, agroforestry, livestock, fisheries),
- ii. water management for agricultural, residential, and other business purposes,
- iii. waste management for agricultural, residential, and other business purposes,
- iv. energy and energy access for Cooperatives working in food security,
- v. energy efficiency for Cooperatives working in food security.

B. **Geographic location of CST Facility borrowers:** A Sub-Borrower’s activity should be physically located in one of the 47 Counties of Kenya, as listed below:

Cluster 1	Cluster 2:	Cluster 3:
1. Turkana	20. Busia	35. Uasin Gishu
2. Mandera	21. Makueni	36. Tharaka-Nithi
3. Wajir	22. Taita Taveta	37. Machakos
4. Marsabit	23. Bungoma	38. Embu
5. Garissa	24. Kakamega	39. Meru
6. Samburu	25. Kisumu	40. Nakuru
7. Tana River	26. Laikipia	41. Nyandarua
8. Baringo	27. Elgeyo-Marakwet	42. Mombasa
9. West Pokot	28. Nyamira	43. Murang'a
10. Isiolo	29. Kisii	44. Kirinyaga
11. Lamu	30. Trans Nzoia	45. Nyeri
12. Kilifi	31. Vihiga	46. Kiambu
13. Kwale	32. Kericho	47. Nairobi
14. Kajiado	33. Bomet	
15. Narok	34. Nandi	
16. Kitui		

17. Migori		
18. Homa Bay		
19. Siaya		

131. To avoid conflict with other programmes and ensure focus on the most vulnerable groups, the CST Facility will apply the following sectoral limitations in the specified counties:

- With respect to the following fourteen (14) Counties - Migori, Homa Bay, Siaya, Busia, Bungoma, Kakamega, Kisumu, Nyamira, Kisii, Trans Nzoia, Vihiga, Kericho, Bomet, and Nandi - eligibility shall be strictly limited to Sub-Borrowers carrying out Fisheries activities classified under Kenya Standard Industrial Classification.

132. Sub-Loans for renewable energy and energy-efficiency investments shall be strictly limited to Sub-Borrowers operating within the food-security value chain. For the purposes of this Agreement, the 'food-security value chain' comprises the following activities as classified under the Kenya Standard Industrial Classification

133. **Definition of hardest-to-reach category:** Applicant must identify and describe barriers encountered that will be addressed by the CSTs adoption as listed in Table B.2.3, including these categories of barriers with more details to be provided in the credit application: severely affected by climate change, facing geographical barriers, being located in arid and semi-arid lands (ASALs), existing in remote locations, experiencing economic and financial barriers, having a high dependency on subsistence agriculture, encountering poor market access and linkages, dealing with limited energy and digital access, facing socio-cultural barriers such as low awareness and gender exclusion, and encountering security barriers.

134. CSTs adoption plan:

- A. Applicant must have a clear plan to adopt one or more of the eligible Climate-Smart Technologies (CSTs) listed in Table B.2.4 List of eligible CSTs for the CST Facility, non-exhaustive relevant to their sector and business needs using CST facility financing. The applicant must provide quotation(-s) for the chosen CSTs with vendor contacts for verification.
- B. The CST adoption must be outlined in the credit application:
 - i. Specific CST(s) to be adopted and justification for their relevance to the business operations with specification.
 - ii. Expected climate impact (GHG emission reduction, climate resilience enhancement, water/food security improvement, waste management).
 - iii. Implementation timeline.

135. Financial Viability & Repayment Capacity:

- A. Applicant must demonstrate the financial viability of their business/farm and the capacity to repay the concessional loan according to applicable tenor.
- B. KCB's standard credit assessment procedures, adapted for the context of "hardest-to-reach" groups and incorporating the Risk Mitigation Mechanism, will be applied.
- C. 5-20% Equity contribution towards CST investment serves as a demonstration of commitment and financial capacity.

II. Desirable Eligibility Criteria (Meeting these will be advantageous but not mandatory):

136. Women-Led MSMEs and Youth Entrepreneurs:

- A. Preference will be given to MSMEs that are majority-owned and managed by women with 0.25% lower interest cost.
- B. Outreach activities will encourage youth entrepreneurs' participation but not limit other categories from participation.

137. Higher Climate Impact Potential:

- A. Projects demonstrating higher potential for GHG emission reduction and/or climate resilience co-benefits will be prioritized.
- B. Projects contributing to multiple Programme objectives (climate resilience, food security, water security, GHG reduction) will be favored.

138. **Participation in Capacity Building Programmes:** Applicants who have participated in relevant capacity building programmes on CSTs, or climate-smart agriculture, or willing to participate in CST-provided capacity building programmes will be favourably considered.

139. Market Linkage Potential: Projects with strong potential to create or strengthen market linkages for CSTs or climate-smart products and services will be viewed favourably.

GCF concessionality pass to hardest-to-reach MSMEs and farmers

140. KCB will ensure that the financial benefits arising from the GCF concessional loan and the GCF Guarantee are fully transmitted to all eligible Sub-Loans. This will be operationalized through tangible improvements in lending terms, including:

- lower interest rates,
-

relative to KCB's standard commercial terms for borrowers with comparable profiles, sectors, and risk characteristics.

141. The credit terms of the CST facility loans are tailored for the hardest-to-reach MSMEs and farmers from the baseline terms. An additional element of this mechanism is a gender-inclusive approach, aiming at least 31% of the CST loans benefiting women-led MSMEs and farms. The financing terms of the CST facility aim to provide interest rate lower than the baseline for hardest-to-reach representing high-risk profile segment. To further empower borrowers, the Programme will develop targeted financial literacy programs to enhance their understanding of loan terms and improve their overall repayment capacity. A robust monitoring system will track loan performance and inform potential adjustments to credit terms through annual reviews, maximizing climate impact while avoiding market distortions. Continuous feedback from borrowers will ensure the financing effectively meets their evolving needs in adopting climate-smart solutions.

142. The loan terms are more attractive for MSMEs and farmers with GCF support primarily due to lower costs and potentially more suitable repayment structures. Specifically, with GCF support, borrowers benefit from reduced interest rates for both micro and SME loans. Women owned and managed MSMEs and farms get additional discount on interest rates. These improved terms make accessing finance for climate-smart technologies more affordable and manageable for MSMEs and farmers.

Activity 1.1.3: Use improved Climate Impact and Risk Assessment Framework (CIRAF), data for CAFI tool and GHG tracking systems to measure mitigation outcomes and adaptation results.

143. KCB will enhance the CIRAF and data for Climate Assessment for Financial Institutions (CAFI) tool and integrate GHG tracking systems to quantify adaptation and mitigation outcomes of its lending portfolio under the CST facility. The enhanced tool will ensure that financing provided under the CST is aligned with climate objectives while improving transparency, accountability, and impact measurement.

144. Key Enhancement of CST data for the CAFI Tool:

- Sector-specific climate metrics for CSTs: The current CAFI tool is not tailored for CSTs because each CST has a unique climate impact that must be assessed swiftly during direct lending. The enhanced internal version will integrate descriptions of eligible CSTs, estimated GHG reduction potential, and resilience benefits into the assessment process.
- Automated climate risk scoring: The tool will categorize loans based on adaptation and mitigation impacts, using climate risk exposure levels per borrower with minimum CSTs specification information provided and data confirmed over the credit product tenor, while hardest-to-reach MSMEs and farmers will not have complications in accessing CST facility funding.
- Dynamic tracking dashboard: Real-time monitoring of climate impact per \$ disbursed, showing trends in GHG reductions, water efficiency improvements, and renewable energy adoption.
- Integration with digital lending platforms: KCB's digital platforms will incorporate automated climate impact tracking, streamlining reporting for concessional loans under CST.

Current Reporting Indicators (IFC Loan to KCB)

145. Currently, KCB tracks climate finance transactions under its IFC CAFI Tool, but these metrics are not designed for CST-specific monitoring. The following indicators are used and are subject for CAFI strengthening:

Table B.2.10: Existing KCB Green Loans Framework to be refined by CST Facility Programme

Sector	Transaction Requirements	Impact Reporting KPIs
Blue Finance	Total Blue Finance Project	MSC Certified sales volume per year

	Production, trade, or retail of seafood with blue marine certification	Number of projects registered under the international seafood sustainability foundation
	Cold chain investments for seafood	Cold storage capacity added
Agriculture	Total Agri Project	Certification standard adopted (e.g., Rainforest Alliance, Better Cotton Initiative)
	Investments in sustainable agriculture	Number of smallholder farmers supported, GHG reduction potential
	Sustainable irrigation infrastructure	Water savings per ha, % of efficiency improvement
Water Efficiency	Total water efficiency project size	Pre-loan and post-loan water consumption reduction
	Sustainable industrial processes	Volume of total water use (liters/year), % reduction

146. These indicators are not sufficient for KCB's climate-smart lending portfolio, as each CST investment type has a distinct climate impact.

How the CAFI tool will be enhanced for CST

147. The new internal CAFI tool version will integrate CST-specific climate impact estimation, ensuring accurate tracking for concessional lending. Table B.2.11 presents examples but not exhaustive suggestions for how the enhanced tool will assess CST-funded investments:

Table B.2.11: Preliminary suggestions for CAFI tool enhancement to monitor CSTs climate impact

No	CSTs Category	Climate Assessment	Impact	Adaptation Indicator	Mitigation Indicator
1	Climate-resilient agriculture	Climate-resilient crop breeding, intercropping, regenerative agriculture		Increased crop yield stability in drought/flood-prone areas	Reduced emissions from chemical fertilizers
2	Solar-powered irrigation	Drip irrigation, atmospheric water generators		Improved water access for hardest-to-reach farmers	Reduced diesel generator dependency
3	Clean cooking renewable energy technologies / waste management	Biogas digesters, portable cookstoves		Household air quality improvement	Reduction in firewood/charcoal use
4	Renewable energy for MSMEs	Solar energy for agri-processing, industrial biomass boilers		Reduced reliance on grid electricity	CO2 savings per MWh generated
5	Post-Harvest Management	Cold chains, automated food drying		Reduction in food loss	Lower emissions from food spoilage, GHG emission from low-GWP or natural refrigerants

148. The Climate Impact Monitoring Enhancement

- **Accountability & transparency:** The enhanced CAFI tool will ensure KCB accurately tracks GCF-financed loans for both mitigation (GHG reductions) and adaptation (resilience-building).
- **Enabling GCF oversight:** The improved system will provide GCF with clear evidence of climate benefits, ensuring concessional funds are effectively deployed.
- **Scaling climate finance:** By embedding climate risk assessment in loan origination, KCB will mobilize additional private sector finance, crowding in more investment in CSTs.

- This enhanced tracking system will ensure that every dollar disbursed under the CST facility contributes to measurable climate action, positioning KCB as Kenya's leading climate finance institution.

149. Annual climate impact assessments will be conducted to systematically track both mitigation outcomes, measured in tCO₂e reduced, and adaptation outcomes, such as improved water security and crop resilience. These assessments will also ensure compliance with Kenya Updated NDC goals and the reporting requirements of the GCF.

150. Annex 3 documents provide further details and justification of planned concessionality from the CST facility investors (GCF and KCB) and for the MSMEs and farmers perspective to confirm the financial viability and attractiveness of the Programme for upstream and downstream uses.

Output 1.2 - Risk mitigation mechanism (RMM) for CST Facility is deployed.

151. Output 1.2 aims to de-risk CST facility loans and improve access to financing for the hardest-to-reach beneficiaries by tapping into a new market niche of borrowers facing high risks due to existing and exacerbating climate risks, in so-called ASALs and high climate risk counties with no or limited access to structure finance and no CST tailored long term loans.

152. The USD 20.3112M GCF 7-year Guarantee is a critical de-risking instrument designed to unlock CST financing for the most vulnerable MSMEs and farmers in Kenya.

Justification for the GCF Guarantee

153. **High credit risk among target borrowers due to climate vulnerability.** Financial institutions face elevated risk in these areas due to low agricultural returns due to climate impact, high administrative costs, and security concerns. Without a GCF guarantee, KCB and other lenders cannot absorb this level of risk while maintaining inclusive eligibility and affordable interest rates.

154. KCB's extensive national branch network and its long-standing role in supporting Government programmes give it a unique risk appetite to serve underserved markets. However, without the guarantee lending would be severely constrained by the Bank, contradicting GCF's strategic priorities on gender equity and inclusive finance.

Activity 1.2.1 - Leverage a \$20.3M guarantee from the GCF to underwrite the CST Facility Loans, reducing insurance costs and enabling broader access to financing.

155. A 2,640,456,000 Kenya Shillings (Two Billion Six Hundred Forty Million Four Hundred Fifty Six Thousand), which is currently equivalent to US\$20.3112M guarantee from GCF for seven years of the programme implementation will be critical for unlocking credit access for high-risk borrowers, particularly first-time borrowers, women, and MSMEs among the hardest-to-reach groups in ASALs counties and other most vulnerable to climate change as per Annex 26. The guarantee will:

- A. Increase KCB appetite to high-risk segment where interest rates remain high due to risk profile of the borrower.
- B. Through the guarantee, the CST facility will have reduced collateral requirements and enabling lending to non-registered farmers.
- C. Lower financing costs, allowing KCB to offer lower interest rates.
- D. Incentivize potential private sector participation in the CST facility through proof of concept and enabling the scaling of climate-smart investments.

156. The primary purpose of the \$20.3112M guarantee is to reduce additional security requirements and to mitigate the losses from loan defaults to encourage private sector capital (both KCB and MSMEs and farmers) to participate in CST adoption, thereby encouraging increased lending to hardest-to-reach MSMEs and farmers. By providing a financial security, the guarantee reduces the potential losses that CST facility might incur due to non-repayment of loans. This risk mitigation is crucial for fostering needs of the hardest-to-reach groups where lending to traditionally underserved or higher-risk borrowers becomes more attractive.

Component 2 of the CST Facility Programme aims to strengthen climate impact assessment and enabling CST Facility uptake and directly contributes to **Outcome 3 - Strengthened institutional and financial systems that enable sustainable market transformation.**

157. Effective dissemination of the CSTs among the hardest-to-reach MSMEs and farmers will be ensured by leveraging the GCF technical assistance support in the grant amount of \$2.96M (out of the total \$8.332M grant by the GCF) and in-kind \$0.43M support from KCB earmarked for Component 2. This technical assistance will aim knowledge dissemination and capacity building among the vulnerable groups of MSMEs and farmers while creating a market linkage to make CSTs accessible and affordable for them. The effectiveness of these objectives will be measured by enhanced Climate Impact and Risk Assessment Framework (CIRAF) within KCB tailored for CST facility operations. Sharing results of these initiatives will support replication of CST facility Programme across sectors.

Output 2.1 Climate Impact and Risk Assessment Framework (CIRAF) is strengthened in KCB and promoted across Kenya's banking sector.

Activity 2.1.1 Enhance CIRAF, data for CAFI tool for climate impact and risk assessment for evaluating climate risks and development of CST screening tool (CST-ST) for CST eligibility in KCB operations.

158. The Central Bank of Kenya (CBK) is actively working to incorporate climate-related risks into the country's banking sector. Recognizing the potential impacts of climate change on financial stability, the CBK has taken significant steps to promote sustainable finance practices. This includes the issuance of the Sustainable Finance Guiding Principles, which provide a framework for financial institutions to assess and manage environmental, social, and governance (ESG) risks, including climate risks. The CBK is encouraging banks to integrate climate risk assessments into their lending and investment decisions, aligning with international best practices and frameworks such as the TCFD. This effort aims to ensure that the Kenyan banking sector is resilient to climate-related shocks and contributes to the country's sustainable development goals. By emphasizing the integration of climate risk into financial operations, the CBK is fostering a more robust and sustainable financial system that can effectively support Kenya's transition to a low-carbon economy¹⁹².

159. CAFI (Climate Assessment for Financial Institutions) is a specialized tool designed to assist financial entities in evaluating and managing climate-related risks and opportunities within their investment and lending portfolios. It emphasizes the integration of climate considerations into financial decision-making, focusing on both physical and transition risks. CAFI supports portfolio-wide analysis and scenario planning, aligning with standards like the Task Force on Climate-related Financial Disclosures (TCFD) to promote transparency and resilience. Key resources for CAFI include materials from UNEP FI, which actively develops and promotes climate risk assessment methodologies, and the TCFD recommendations themselves, which provide a framework for climate-related financial disclosures^{193,194}.

160. The CAFI tool is a climate finance assessment platform used by KCB to classify, measure, and report climate-related lending activities. It aligns with global frameworks such as the MDB-IDFC Common Principles, IFC Climate Metrics, and GCF's Integrated Results Management Framework. For mitigation, it estimates GHG emissions avoided through activities like renewable energy and energy efficiency. For adaptation, it tracks resilience outcomes such as beneficiaries reached or infrastructure protected. The existing CAFI tool operates by screening each financial transaction to determine its eligibility as climate finance, using globally recognized frameworks such as the MDB-IDFC Common Principles and IFC Climate Definitions. For mitigation activities, it applies a positive list of eligible technologies and calculates expected GHG emissions reductions using embedded sector-specific calculators. For adaptation, it uses a three-step screening approach - identifying climate vulnerability, confirming adaptation intent, and establishing a logical link between the activity and resilience outcomes. Once classified, CAFI quantifies impact metrics and aggregates them across portfolios, enabling standardized reporting aligned with GCF's Integrated Results Management Framework. However, the tool is not yet tailored to CST lending for MSMEs and farmers, especially in high-risk counties. It lacks modules for small-ticket loans, informal borrowers, and gender-responsive metrics. Currently, CAFI operates separately from KCB's digital platforms and loan origination systems, limiting its integration and scalability. Enhancements are planned to enhance CAFI system into KCB's online systems, enabling real-time tracking and portfolio-level impact reporting.

161. **CIRAF (Climate Impact and Risk Assessment Framework)** is a broader, multi-sectoral framework that encompasses the comprehensive evaluation of both climate impacts and risks. It extends beyond financial

¹⁹² <https://www.greenfinanceplatform.org/policies-and-regulations/sustainable-finance-guiding-principles-adopted-kenyas-banking-industry>

¹⁹³ [TCFD Recommendations](#)

¹⁹⁴ [UNEP FI Website](#)

institutions to include diverse sectors, integrating data from climate models, socio-economic analyses, and sector-specific information. CIRAF aims to provide a holistic understanding of climate-related challenges and opportunities, supporting the development of resilient strategies and policies aligned with national and international climate objectives, such as the Paris Agreement and NDCs. The IPCC, which provides comprehensive climate change assessments, and the UNDP, which focuses on climate change adaptation and mitigation, are vital sources for understanding CIRAF^{195,196}.

162. In essence, CAFI is tailored for financial institutions to assess financial climate risk, while CIRAF provides a broader, multi-sectoral approach to measuring and understanding both the impacts and risks of climate change. Both frameworks are essential for promoting climate action and sustainable development, with CAFI providing the financial lens, and CIRAF the broader impact and risk context. National climate change directorates, like Kenya's, also provide sector-specific guidance and policies crucial for implementing both CAFI and CIRAF¹⁹⁷.

163. KCB will enhance the CAFI tool to align with Kenya's specific climatic and socio-economic context. This will involve integrating CST indicators into the tool to measure the climate impact of CSTs during the Programme's implementation period. The enhanced CAFI tool will enable KCB to accurately assess climate risks associated with potential investments in CSTs, ensuring that these investments are both impactful and aligned with GCF's adaptation and mitigation goals. This aligns with the need for financial institutions to integrate climate risk into their assessments, as highlighted by the **Central Bank of Kenya's Sustainable Finance Guiding Principles**¹⁹⁸.

164. Hybrid stakeholder workshops will be conducted with a wider range of participants, aiming engagement with sector proponents and potential stakeholders, including but not limited to Kenya Association of Manufacturers, Kenya National Chamber of Commerce and Industry (KNCCI), Agricultural Sector Network, Micro and Small Enterprises Authority (MSEA), Kenya Meteorological Department, National Environment Management Authority (NEMA).

165. These workshops will validate the tool and incorporate feedback on sector-specific climate risks and CST eligibility criteria, ensuring alignment with Kenya's **National Climate Change Action Plan (NCCAP) 2018-2022**¹⁹⁹. User guidelines and training materials will be developed to facilitate the effective deployment of the CAFI tool across KCB's diverse lending portfolio.

166. The Climate-Smart Technology Screening Tool (CST-ST) will serve as the core operational mechanism that ensures every CST financed under the Programme is climate-rational, technically viable, environmentally safe, and appropriate for the borrower's local context. Building on the enhancements to the CAFI tool for climate-risk and climate-impact assessment, the CST-ST will translate CAFI's analytical outputs into clear, transaction-level eligibility criteria that KCB staff can apply consistently across branches and digital lending channels. Its development will be led by specialized experts contracted under the Programme, who will design the tool's climate-hazard profiling, dependent-infrastructure checks, maladaptation screening, financial-additionality logic, and inclusion parameters. Once developed, the CST-ST will be integrated into KCB's digital lending systems and operational procedures, supported by targeted training for loan officers and agents to ensure uniform application. This approach embeds climate-risk intelligence directly into KCB's credit processes, strengthens CST eligibility assessment, and enables the CST Facility to reach high-risk, underserved borrowers with confidence and environmental integrity.

Activity 2.1.2 Train KCB personnel and agents to apply climate risk assessment frameworks and CAFI tool for financing decisions, ensuring effective deployment of CST-linked credit lines.

167. The training program will be tailored to address the diverse sectors of CST facility Programme. It will include modules on:

- Sector-specific climate risk assessment methodologies.
- Integration of climate risk into credit scoring for various sectors.
- Use of GHG tracking systems applicable to different industries.
- Methods to assess climate resilience and mitigation impacts in diverse sectors.

¹⁹⁵ [UNDP Climate Change](#)

¹⁹⁶ [IPCC Website](#)

¹⁹⁷ <https://www.climatechange.go.ke/>

¹⁹⁸ <https://www.centralbank.go.ke/wp-content/uploads/2021/11/Sustainable-Finance-Guiding-Principles.pdf>

¹⁹⁹ <https://www.climatechange.go.ke/wp-content/uploads/2020/09/NCCAP-2018-2022>.

168. The training will cover the regulatory framework in Kenya, including the Climate Change Act (2016) and relevant sector-specific regulations, along with the **Kenya Vision 2030** goals for sustainable development²⁰⁰. The training will include KCB staff from various departments: Agricultural lending, MSME lending, corporate lending, risk management, and sustainability. The training program is designed to ensure the effective application of the enhanced CAFI tool and the successful deployment of Climate Smart Technology Facilities. The trainings will be conducted by climate impact assessment experts onboarded by the KCB.
169. These capacity building sessions will be tailored for KCB personnel especially involved in CST facility lending operations, assessment, and reporting. Also, the training s will be held for the Programme agents like private sector representing CSTs supply chain, representatives of the hardest-to-reach categories among farmers cooperatives, CSOs representing youth and women, authorities' representatives, community leaders. The trainings will take place centrally to kick-off and assess efficiency of the session. In-person trainings will be also conducted in many targeted counties aiming to engage KCB bank personnel and local Programme agents.
170. Initially, the CAFI tool undergoes a rigorous enhancement process, tailored to Kenya's specific climate and economic context, and validated through stakeholder workshops. This ensures the tool accurately measures climate impacts and aligns with national climate goals. Following this, comprehensive training materials are developed, based on a thorough needs assessment, covering climate risk assessment, CAFI tool utilization, and relevant regulatory frameworks. Training sessions, combining online and in-person formats, are then conducted by expert trainers, focusing on practical application and knowledge sharing. To gauge the program's efficacy, pre- and post-training assessments, alongside practical exercises and participant feedback, are utilized. Finally, a sustainable approach is adopted through ongoing support, knowledge repositories, and refresher training, ensuring that KCB staff and agents maintain and enhance their climate risk assessment capabilities, thereby establishing a strong proof of concept for future climate-focused lending in Kenya.
171. Training sessions will be conducted by climate experts in collaboration with experts from institutions like the Climate Innovation Centre Kenya and research institutions focusing on climate and sector specific analysis, to ensure the training is based on current climate science and policy.

Activity 2.1.3 Digital Lending Solutions (DLS) are integrated for CST Facility in KCB platforms with real-time climate impact monitoring, compliance tracking, and reporting.

172. The primary objective of Activity 2.1.3 is to integrate Digital Lending Solutions (DLS) into KCB platforms to facilitate the seamless disbursement of credit under the CST facility, specifically targeting hard-to-reach borrowers. This integration is justified by the need to improve the efficiency of CST operations and enhance accessibility and user experience for MSMEs and farmers who may face traditional barriers to accessing financial services. Ultimately, this activity aims to promote the adoption of digital solutions for reaching underserved beneficiaries by financial institutions across Kenya.
173. The DLS integration will embrace all sectors that the CST facility Programme tackles (agriculture, energy and energy access, water and waste management, energy efficiency in manufacturing). It will include features relevant to MSMEs and farmers in various sectors, such as:
174. Digital tools for assessing energy efficiency in manufacturing, aligning with **Kenya's National Energy Efficiency and Conservation Strategy**²⁰¹.
- Platforms for tracking sustainable supply chains in trade, addressing the growing demand for sustainable sourcing practices.
 - Mobile applications for accessing climate information relevant to specific sectors, leveraging the high mobile penetration rate in Kenya²⁰².
 - The compliance tracking mechanisms will be designed to monitor adherence to sector-specific environmental and social safeguards, ensuring alignment with NEMA regulations.
 - Pilot testing will be conducted with a diverse range of MSMEs and farmers, ensuring the platform meets the needs of various user groups.

²⁰⁰ <https://vision2030.go.ke/>

²⁰¹ https://www.energy.go.ke/index.php%3Foption%3Dcom_content%26view%3Darticle%26id%3D102%26Itemid%3D194

²⁰² <https://www.ca.go.ke/>

- The integration and its effectiveness will be monitored through several key steps and deliverables. This includes upgrading KCB's digital lending platforms to incorporate features tailored for CST credit products, including tools for real-time climate impact and sustainability monitoring, as well as compliance tracking. The design of intuitive user interfaces will be prioritized, and compliance monitoring mechanisms will be embedded to track loan performance and ensure alignment with climate goals. A pilot phase with a sample of borrowers will be conducted to gather feedback, refine platform features, and ensure the platform effectively meets user needs. The success of this activity will be assessed through an operational digital lending framework, a user interface and compliance tracking report, and an analysis report evaluating the effectiveness and efficiency of CST adoption via DLS, providing recommendations for optimization and enhanced climate impact.

Activity 2.1.4 Identify and develop mechanisms to address credit risk of CST Facility portfolio throughout Programme implementation period

175. This activity aims to strengthen the design and performance of CST Facility sub-loan products so that they are both accessible to vulnerable borrowers and financially sustainable for long-term scaling. It will focus on developing dedicated CST Facility lending products with tailored eligibility criteria, pricing structures, and risk-mitigation features that improve repayment performance while enabling KCB to serve high-risk MSMEs and smallholders.
176. To achieve this, the activity will begin with a comprehensive diagnostic of the CST Facility portfolio by KCB team, including an assessment of underwriting practices, operational processes, systemic and external risk drivers, and stakeholder insights to identify the root causes of non-performing loans. Building on this analysis, the Programme will evaluate KCB's existing Climate Risk Management and Impact Reporting tools and associated credit-risk mitigation mechanisms to determine where adjustments are needed - whether in pricing, climate-risk scoring, collateral requirements, or other sub-loan terms.
177. The activity will generate a comprehensive CSTF Portfolio Review Report, produced annually and integrated into the APRs from Years 2 to 6 and a Gap Analysis and TA Implementation Results Assessment, integrated into the Mid-Term Evaluation and Completion Evaluation reports between Years 2 and 6. This self-assessment will examine the effectiveness of technical assistance activities, identify remaining gaps in product design, risk assessment, and operational processes, and provide evidence-based recommendations to further strengthen the CSTF's performance and scalability. Together, these deliverables ensure continuous learning, adaptive management, and the institutionalization of improved lending practices across the CST Facility.

Output 2.2 CSTs are promoted among hardest-to-reach MSMEs and farmers through establishing system for climate information dissemination, capacity building and improved market linkage.

178. Output 2.2 will result in knowledge shared and capacity built for MSMEs and farmers, along with CSTs supply chain and relevant proponents. It will also create market linkage between the hard-to-reach MSMEs and farmers and CSTs suppliers to ensure access to the climate solutions.

Activity 2.2.1 Provide technical assistance to MSMEs, farmers, and local authorities to support CSTs adoption, focusing on the efficiency, cost-benefit, and climate impact benefits of CSTs, promoting youth participation.

179. This activity will deliver sector-specific technical support designed to meet the unique needs of hardest-to-reach beneficiaries for CSTs adoption. The objective will be to present climate smart solutions to tackle climate risks as well as socio-economic barriers for the eligible groups. The outreach will be tailored to the targeted groups through local authorities, CSOs, community, CSTs supply chain players, research organizations, and cooperatives representatives supporting CSTs adoption.
180. Every CSTs armers will receive training on climate-smart agricultural practices, such as the implementation of drought-resistant crops and efficient irrigation techniques, in line with the expertise of the Kenya Agricultural and Livestock Research Organization (KALRO)²⁰³. Manufacturing MSMEs will be equipped with knowledge on energy efficiency and waste management strategies, directly contributing to the objectives of Kenya's Sustainable Manufacturing Strategy. Similarly, trade MSMEs will gain expertise in sustainable supply chain management, focusing on responsible sourcing and distribution practices. This outreach will be achieved through strategic collaborations with relevant sector-specific associations and organizations. Furthermore, the delivery of technical assistance will be strengthened by partnerships with specialized institutions such as the Kenya Industrial Research

²⁰³ <https://www.kalro.org/>

and Development Institute (KIRDI) for manufacturing-related support and the Kenya Bureau of Standards (KEBS) for guidance on relevant certifications.

181. Technical assistance will be tailored to the specific needs of different sectors. For example:

- Farmers will receive training on climate-smart agricultural practices, such as drought-resistant crops and efficient irrigation, in line with the Kenya Agricultural and Livestock Research Organization (KALRO)²⁰⁴ work.
- Manufacturing MSMEs will receive training on energy efficiency and waste management, supporting the goals of Kenya's Sustainable Manufacturing Strategy.
- Trade MSMEs will receive training on sustainable supply chain management, addressing the need for responsible sourcing and distribution.

182. The outreach strategy will include partnerships with sector-specific associations and organizations.

183. The TA will be conducted in partnership with organizations like Kenya Industrial Research and Development Institute (KIRDI) for manufacturing, and Kenya Bureau of Standards (KEBS) for certifications.

Activity 2.2.2 Strengthen market linkages and partnerships to ensure CST supply chains reach underserved regions, addressing logistical barriers, improving affordability.

184. This activity is designed to create robust and efficient supply chains for CSTs, ensuring they effectively reach hardest-to-reach MSMEs and farmers. It addresses logistical barriers, improves affordability, and fosters an enabling environment for widespread CST adoption. This activity is closely integrated with knowledge dissemination initiatives focused on climate risk management and capacity building programs aimed at introducing climate-smart solutions eligible for financing through the CST facility.

185. The core objective extends beyond simply introducing available CSTs to eligible MSMEs and farmers. It aims to make these technologies affordable, promote their uptake by demonstrating their proof of concept, and set the stage for scaling up CST adoption beyond the program's duration. To achieve this, CST supply chain players will be encouraged to get accredited for the CST facility, which will, in turn, incentivize CSTs adoption throughout both the supply chain and KCB network.

186. The objective will be achieved through:

- **Organizing trade fairs and exhibitions along with capacity building for MSMEs and farmers:** Platforms will be created for showcasing a diverse range of CSTs directly to MSMEs and farmers. These events will facilitate interaction between technology providers, financial institutions, and end-users, fostering awareness and generating demand.
- **Developing CSTs online platforms connecting vendors and users:** Digital platforms will be established to connect MSMEs and farmers with CST vendors. These platforms will provide information on product availability, pricing, technical specifications, and vendor credentials, streamlining the procurement process and enhancing market transparency.
- **Establishing partnerships with logistics providers:** Collaborations with logistics companies will be pursued to reduce transportation costs, particularly in reaching remote and underserved regions. This will improve the affordability of CSTs and expand their accessibility to a wider range of beneficiaries.
- **Developing a vendor Accreditation Framework:** A rigorous vendor accreditation framework will be developed, incorporating sector-specific quality standards for CSTs. This framework will ensure that only high-quality, reliable technologies are promoted through the program, building trust and confidence among MSMEs and farmers.
- **Collaboration with County Governments:** Partnerships with county governments will be established to support the development of local distribution hubs for CSTs. This decentralized approach will strengthen local economies, create employment opportunities, and ensure the sustainable availability of CSTs within specific regions.

Activity 2.2.3 Identify, assess, and integrate existing donor-funded initiatives within Cluster 1 and Cluster 2 into Project implementation.

²⁰⁴ [KALRO](#)

187. Activity 2.2.3 plays a central role in ensuring that the Programme does not operate in isolation but instead builds on, strengthens, and connects the climate-related initiatives already active in Kenya's most vulnerable counties. The focus is on systematically identifying and integrating donor-funded programmes, GCF-supported interventions, and DFI-backed efforts that are already delivering climate information services, market linkages, and resilience-building support in Cluster 1 and 2.
188. A particular emphasis is placed on early-warning system integration, working closely with the Kenya Meteorological Department (KMD) and the National Drought Management Authority (NDMA) to embed localized drought, flood, and seasonal climate advisories directly into KCB's lending processes and borrower support systems. This ensures that MSMEs and farmers receive actionable climate information that reduces operational risk and strengthens repayment capacity.
189. At the same time, the activity promotes alignment with other GCF programmes operating in Kenya—such as those focused on climate-resilient agriculture, adaptation planning, or climate-information services—as well as initiatives financed by DFIs, FAO, IFC, AfDB, Proparco, and FMO and other active players. By mapping and integrating these complementary efforts, the Programme enhances pipeline development, avoids duplication, and channels lessons learned into community engagement and capacity-building activities.
190. Overall, this activity ensures that the CST Facility is fully anchored within Kenya's broader climate-resilience ecosystem by integrating early-warning systems and lessons learned from existing donor-funded, GCF-supported, and DFI-backed initiatives. By working closely with KMD, NDMA, and other partners, the Programme leverages established investments and institutional capacities to enhance the use of drought, flood, and climate advisories, de-risk MSME and farmer operations, and deliver deeper, more sustainable impact in the highest-risk counties.

Component 3 of the CST Facility Programme focuses on strengthened financial and institutional frameworks sustaining scaled CSTs financing and market uptake beyond the Programme period. Same as the Component 2, Component 3 directly contributes to the **Outcome 3 - Strengthened institutional and financial systems that enable sustainable market transformation for scaling up CST Facility adoption.**

191. This Component aims to create an enabling environment that fosters the long-term adoption and impact of CSTs by strengthening regulatory frameworks and ensuring effective knowledge dissemination among key stakeholders. It recognizes that technological solutions alone are insufficient; supportive policies and widespread awareness are crucial for achieving sustainable climate impact. This initiative leverages technical assistance from the GCF in the grant amount of \$0.925M (out of the total \$8.332M grant by the GCF) and in-kind support from KCB valued at \$0.16M earmarked for Component 3.

Output 3.1 Institutional capacity is strengthened for origination of equitable CST financial products to scale up CST Facility adoption. This output focuses on building institutional capacity to originate CST loans among MSMEs and farmers while promoting gender inclusive approach addressing barriers for women's participation.

Activity 3.1.1 Collaborate with Financial Institutions (FIs) and market actors to originate tailored, equitable CST credit products that scale up access to finance for the most underserved MSMEs and farmers.

192. This activity promotes the adoption of CSTs for food security, climate resilience, and low-carbon development among vulnerable populations by sharing lessons learned and KCB's climate risk-integrated lending mechanisms. It strengthens the enabling environment by fostering market development and building institutional capacity across financial institutions to support effective implementation and systemic transformation.
193. The activity will be implemented in collaboration with the Kenya Bankers Association, which will co-lead efforts through a signed Memorandum of Understanding (MOU). This MoU will formalize joint efforts to promote CST financing among financial institutions and facilitate peer learning across the sector. As part of this collaboration, KCB will share its experience in CST credit product origination, including barriers encountered and solutions developed to serve high-risk and underserved segments.
194. To build momentum and ensure broad uptake, targeted trainings will be conducted for financial institutions and market actors. These sessions will focus on CST credit product design and origination practices, with an emphasis on improving access for the hardest-to-reach MSMEs and farmers. A validation workshop report will capture feedback from these sessions and document institutional commitments to CST replication.

195. To guide long-term scale-up, the activity will produce a country baseline brief, a set of recommendations, and a Roadmap for CST credit product development and uptake. These outputs will draw on KCB's climate risk-integrated lending framework and lessons learned, and will outline practical steps to strengthen institutional capacity and mainstream CST financing across the sector.

196. Together, these efforts will support the integration of climate risk assessment into financial portfolios in alignment with Government of Kenya initiatives, including the Climate-Smart Agriculture Strategy, the CSA Investment Plan, and emerging efforts to embed climate risk into financial sector operations.

Output 3.2 Knowledge systems and collaboration enhanced for CST Facility uptake and climate impact tracking.

Activity 3.2.1 Knowledge dissemination on CST Facility, climate impact data collection, and information management.

197. This activity contributes to strengthening knowledge systems and institutional capacities for climate impact tracking and inclusive climate finance. It supports strategic programming directions that prioritize transformative planning, data-driven decision-making, and multi-stakeholder collaboration to accelerate low-emission, climate-resilient development.

198. Robust mechanisms for data collection, management, and dissemination will be established under the CST Facility within KCB Bank. These systems will promote transparency, enable climate impact tracking, and facilitate replication of climate-smart lending practices. The activity leverages partnerships, digital platforms, and communication frameworks to ensure that knowledge products are accessible, inclusive, and responsive to stakeholder needs. Knowledge dissemination efforts will include development of sector-specific case studies showcasing successful CST adoption, webinars and workshops on climate-smart practices across industries, collaboration with researchers, including the University of Nairobi's Institute for Climate Change and Adaptation, to co-develop sector-specific knowledge products, establishment of a channel to share CST Facility data, tools, and best practices.

199. To inform broader uptake and replication, KCB Bank will produce a report on CST Facility performance and investment strategies for scaling climate impact assessment of credit products in Kenya, based on consultations and lessons from the first-year CST cycle. Over the implementation period, four knowledge products will be issued, including case studies and strategy briefs that document lessons learned and showcase successful CST adoption among MSMEs and farmers.

200. A multi-stakeholder workshop will be convened to share investment strategies and gather feedback from financial institutions, policymakers, business associations, and other relevant actors. The resulting workshop report will summarize key insights and recommendations for scaling climate impact assessment practices across credit portfolios. The knowledge dissemination will be within the MOU scope with the Kenya Bankers Association.

Activity 3.2.2 Facilitate engagement with financial market actors to institutionalize CST Facility credit products and align climate impact assessment practices in line with CBK initiatives.

201. KCB Bank, with the support of local and international experts, will facilitate the scaling up of the CST facility Programme by engaging other commercial banks in Kenya to replicate the model leveraging stock of lessons learned. This strategic transition is designed to ensure the long-term sustainability and maximize the impact of the CST initiative, particularly as the GCF gradually concludes its direct support role.

202. The activity will focus on two key sub-activities:

- KCB Bank will develop comprehensive operational guidelines for CST replication within financial sector to adopt CSTs. These guidelines will provide detailed instructions and standards for other FI seeking to implement similar credit lines, covering essential aspects such as eligibility criteria for borrowers, the integration of de-risking tools, a result measurement framework, and the use of standardized climate impact tracking tools for the replicated credit lines.
- KCB Bank will conduct stakeholder consultations to promote the replication of the CST model. These consultations will involve presenting the established CST model and its outcomes to potential partner banks, highlighting its successes and lessons learned. The consultations will also serve as a platform to establish

formal partnership frameworks with interested commercial banks throughout Kenya, fostering collaboration and wider adoption of climate-smart lending practices.

203. Recognizing the importance of a robust regulatory environment, this activity will also actively support and align with the ongoing efforts of the Central Bank of Kenya (CBK) in strengthening the green finance ecosystem. Notably, the CBK has been actively working on a framework for measuring climate risks within the banking sector, including the recent issuance of a draft Climate Risk Disclosure Framework for public consultation. This framework aims to enable banks to consistently and comparably gather and disclose climate-related information, providing investors with crucial insights and promoting transparency. Furthermore, KCB Bank will explore opportunities to collaborate with the National Treasury's initiative to seek partnerships with banks for providing credit guarantees in rural areas. This collaboration can further de-risk lending for climate-smart agriculture and other green initiatives in underserved regions, complementing the CST replication efforts. The expected outputs of this activity include: a complete set of operational guidelines and tools designed to facilitate effective CST replication by other financial institutions; a detailed workshop report documenting the consultations held to promote CST replication; and at least three letters of interest from Kenyan commercial banks, demonstrating their commitment to replicating the CST model and potentially leveraging the evolving regulatory landscape and guarantee mechanisms.
204. To further institutionalize climate risk practices, a technical working group will be established within the Kenya Bankers Association, comprising commercial banks and FI members. This group will co-develop climate risk screening protocols, portfolio-level impact metrics, and reporting templates aligned with CBK's disclosure standards.

B.4. Implementation arrangements (max. 1500 words, approximately 3 pages plus diagrams)

Provide a description of the project/programme implementation structure, outlining legal, contractual, institutional and financial arrangements from and between the GCF, the Accredited Entity (AE) and/or the Executing Entity(ies) (EE) or any third parties (if applicable) and beneficiaries.

- *Provide information on governance arrangements (supervisory boards, consultative groups among others) set to oversee and guide project implementation. Provide a composition of the decision-making body and oversight function, particularly for Enhanced Direct Access (EDA) proposals.*
- *Provide information on the financial flows and implementation arrangements (legal and contractual) between the AE and the EE, between the EE or any third party and beneficiaries. For EEs that will administer GCF funds, indicate if a Capacity Assessment has been carried out. Where applicable, summarize the results of the assessment.*
- *Describe the experience and track record of the AE and EEs with respect to the activities (sector and country/region) that they are expected to undertake in the proposed project/programme.*

Provide a diagram(s) or organogram(s) that maps such arrangements including the governance structure, legal arrangements, and the flow and reflow of funds between entities.

205. The implementation of the CST Facility Programme will be led by KCB Bank Limited (KCB), serving as both the Accredited Entity (AE) and Executing Entity (EE) for the entire Programme. KCB will oversee the program's governance, financial flows, and risk management while ensuring compliance with GCF standards. In its role as the Executing Entity, KCB will be responsible for day-to-day implementation of the CST Facility Programme, including originating and managing Sub-Loans, applying the agreed eligibility criteria, administering the GCF concessional resources and guarantee, integrating Programme requirements into its credit processes and systems, and coordinating technical assistance activities. KCB will also lead monitoring, reporting, and adaptive management at the operational level to ensure that the Facility delivers climate-aligned, gender-responsive, and inclusive financing to the targeted borrowers.
206. The enabling-environment Components 2 and 3 will be executed directly by KCB Bank, drawing on its established sustainability and climate-finance expertise. For specific technical and community-level activities, KCB Bank will engage the KCB Foundation solely as a contracted implementation partner. This arrangement does not confer Executing Entity status on the KCB Foundation; no decision-making authority, fiduciary responsibility, or financial-management functions will be transferred. These role distinctions are fully detailed in the Operations Manual for the GCF grant included in the Annexes.
207. Moreover, the KCB Foundation's legal status and the limited scope of its Programme support do not meet the requirements for designation as an Executing Entity. KCB Bank retains full authority over operational decisions, resource allocation, and Programme oversight - functions that are integral to its core banking operations and are regulated by the Central Bank of Kenya under national banking laws and regulations. This structure ensures clear

accountability, regulatory compliance, and alignment with GCF fiduciary standards. KCB Bank Limited in Kenya is a recognized leader in sustainable finance and climate-focused investments, with a well-established sustainability team that spearheads climate initiatives across its operations. The Sustainability and Climate Finance Unit within KCB plays a pivotal role in integrating green finance into the bank's core business, ensuring compliance with Environmental, Social, and Governance (ESG) principles and supporting Kenya's Updated NDC. KCB was among the first banks in Kenya to adopt the Principles for Responsible Banking and has successfully implemented green lending frameworks for sustainability-linked loans for renewable energy, water conservation, and climate-smart agriculture projects. In 2021, KCB became the first bank in Kenya to commit to Net Zero by 2050, reinforcing its leadership in climate resilience and sustainability. By 2023, KCB had approved green loans worth KES 21.4 billion, accounting for 15.5% of its total loan portfolio, directed towards projects in e-mobility, climate change adaptation, energy efficiency, and renewable energy²⁰⁵.

208. KCB's digital banking platforms provide last-mile access to financing, allowing underserved MSMEs and farmers to obtain credit through mobile-based solutions. In contrast to other banks that primarily focus on large-scale infrastructure or corporate finance, KCB has actively expanded its climate financing which position in the best way to implement the CST facility Programme to serve hardest-to-reach communities, leveraging concessional funding and guarantees to de-risk lending to smallholder farmers and MSMEs.
209. KCB's track record in implementing climate programs includes partnerships with international organizations such as the International Finance Corporation (IFC)²⁰⁶ and the African Development Bank (AfDB)²⁰⁷, demonstrating its ability to manage large-scale climate finance initiatives. The KCB Green Finance Strategy, introduced in 2022, set a target of allocating at least 25% of its loan portfolio to climate-related projects by 2025, positioning it as the leading financial institution in climate-smart lending in East Africa.
210. The Sustainability and Climate Finance Unit leading this CST program is represented by a team of professionals, including environmental economists, climate risk analysts, green finance experts, and impact investment specialists, ensuring technical capacity, risk assessment, and financial sustainability throughout the program's lifecycle.
211. The KCB Bank, with a dedicated sustainability team and a proven track record in community-driven climate initiatives, will serve as EE for Components 2 and 3, for capacity building, enhancing climate impact monitoring tools, improving market linkage, enhanced regulatory frameworks and effective knowledge dissemination.
212. Established in 2007, the KCB Bank serves as the corporate social investment arm of KCB Bank Group, focusing on sustainable development to alleviate poverty and enhance well-being across communities in Kenya and the broader East African region. With a mission to "build communities to bank on themselves" and a vision "to transform lives to enable progress," the KCB Group has invested approximately KES 3 billion in community programs spanning Kenya, South Sudan, Rwanda, Tanzania, Uganda, and Burundi²⁰⁸.
213. The KCB Group's initiatives have been structured around key thematic areas that strengthen institutional capacity for climate and social initiatives, with these efforts extending directly to KCB Bank. :
- Enterprise Development: 2Jiajiri program aiming to catalyze job and wealth creation by providing vocational and entrepreneurial skills to youth and informal sector entrepreneurs²⁰⁹.
 - Environment and Natural Resources: Through various programs, the KCB promotes environmental conservation and sustainable use of natural resources, aligning with broader goals of ecological preservation.
 - Health: Initiatives under this pillar address health inequities by supporting projects that enhance access to quality healthcare services in underserved communities.
 - Humanitarian Aid: The KCB and its Group members responds to emergencies and provides aid to communities affected by natural disasters or other crises.

²⁰⁵ <https://group.preprod.kcbgroup.com/storage/kcb-sustainability-report-2023.pdf>

²⁰⁶ <https://www.ifc.org/en/pressroom/2022/ifc-kcb-partnership-to-boost-access-to-climate-finance-in-kenya>

²⁰⁷ <kenya - kenya commercial bank limited - project summary note.pdf>

²⁰⁸ <https://foundation.kcbgroup.com/about-us/>

²⁰⁹ <ke.kcbgroup.com>

214. In collaboration with international partners, the KCB Bank has expanded its impact. For instance, a partnership with the Bill & Melinda Gates Foundation in November 2023²¹⁰ aims to provide access to productive credit for low-income women in Kenya, addressing barriers such as lack of collateral that hinder access to commercial credit.
215. The KCB Bank will competitively procure experts firms with extensive expertise in implementation climate programmes and with local presence for technical assistance, specifically for capacity building of MSMEs, farmers, and value chain players, enhancing climate impact monitoring tools, improving market linkage market linkage development, knowledge sharing, and building institutional capacity for CST loans uptake.

Institutional and Implementation Structure

216. A **Programme Management Unit (PMU)** will be established within KCB Bank as EEs ensuring smooth coordination, implementation, and monitoring of the program. The CST Facility Programme PMU will comprise Programme Manager, Financial Manager, Climate and Environmental Specialist, CST Technical Lead, Gender & Inclusion Specialist, Agriculture and SME Specialist, Monitoring & Evaluation Specialist. PMU Operations Manual and profiles of the PMU members are attached as Annex to this funding proposal.
217. The PMU will report to the **Programme Steering Committee (PSC)**. The PSC will provide strategic oversight, ensuring alignment with Kenya's national policies and GCF investment criteria, and will include representatives from KCB and Kenya NDA - the National Treasury of the Republic of Kenya. PSC will remain in collaboration with organizations for strategic advice to effectively tackle the Programme objectives. Such stakeholders will include Micro and Small Enterprises Authority (MSEA)²¹¹, Farmers Cooperatives Eastern Africa Farmers Federation²¹², the Kenya Bankers Association, and other as part of stakeholders' engagement to ensure Programme sustainability and scaling up.
218. The PSC will serve as a strategic advisory and oversight body for the CST Program. The PSC will ensure that the program aligns with national climate finance strategies, banking sector priorities, and MSME development goals. The committee will provide high-level guidance, facilitate stakeholder coordination, and oversee progress toward program objectives. The PSC will be established as a non-permanent body for the duration of the CST program implementation phase. It will convene annual meetings (or as needed) to review progress, address challenges, and provide strategic direction.
219. At the end of the implementation phase, the PSC will transition responsibilities to an institutionalized climate finance coordination unit within KCB. A final report will document lessons learned, recommendations, and pathways for long-term sustainability. The PSC will formally dissolve after five years, with select members continuing as advisors for long-term climate finance strategy development.

²¹⁰ [gatesfoundation.org](https://www.gatesfoundation.org)

²¹¹ [Home | State Department for Micro, Small and Medium Enterprises \(MSMEs\) Development](#)

²¹² [Eastern Africa farmers' federation – Voice of all farmers in Eastern Africa](#)

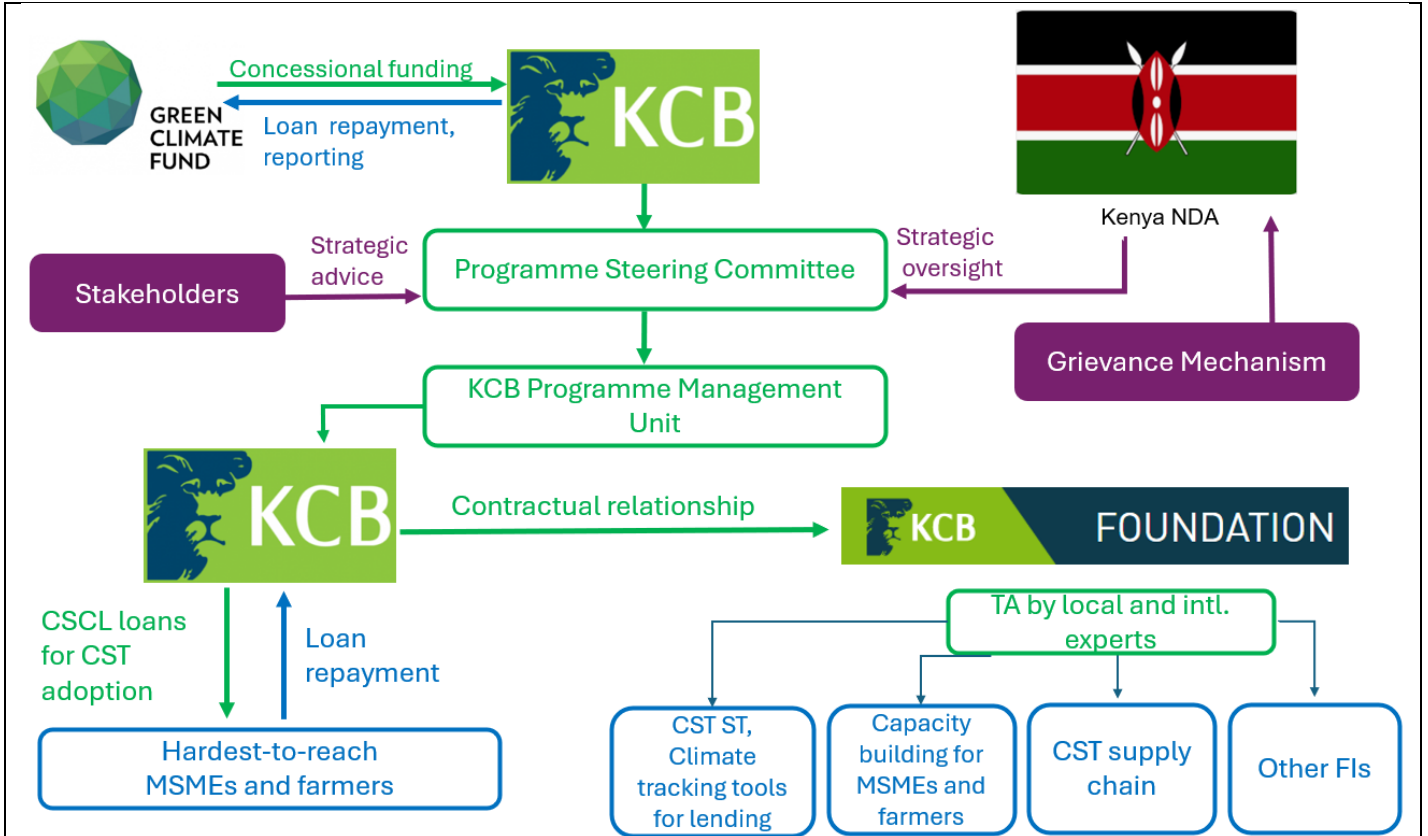


Figure 2: Governance structure of the CST Facility Programme

Governance summary

220. The implementation structure of the CST Facility Programme is designed to ensure strategic oversight, financial accountability, and effective execution of both financial and technical assistance components. The GCF will provide concessional funding and investment framework to KCB, serving as the Accredited and Executing Entity, overseeing direct loan disbursement and repayment to MSMEs and farmers through its national branch network and digital platform. The PSC offers strategic direction and coordination, integrating advice from stakeholders and national authorities while maintaining a grievance mechanism for transparency and accountability.

221. The PMU will be housed within KCB Bank and will operate under KCB’s management systems. While the PMU may include KCB Foundation staff seconded for specific tasks, these personnel will operate strictly under KCB Bank’s authority. No decision-making, fiduciary, or financial-management responsibilities will be transferred to the KCB Foundation, and the Foundation will not hold Executing Entity status.

222. KCB Bank will directly channel CST loans to the hardest-to-reach MSMEs and farmers, who will repay the loans to sustain the revolving facility. The KCB Foundation will act solely as a contracted implementation partner for enabling-environment activities, leveraging its network of local and international experts to deliver technical assistance such as climate-impact tracking tools, MSME and farmer capacity building, market linkages for CST supply chains, and institutional strengthening. All such activities will be procured and implemented under the supervision and fiduciary control of KCB Bank.

Roles and responsibilities of key institutions of the Programme

223. KCB Bank Limited (AE and EE for Financial Components)

- Ensures adherence to GCF accreditation standards and fiduciary policies.
- Manages concessional lending and financial disbursements under CST.
- Administers loan applications, due diligence, and credit risk assessments.
- Implements digital lending solutions, expanding access to last-mile borrowers.
- Ensures capital recycling through repayment mechanisms.
- Retains full fiduciary responsibility, decision-making authority, and programme-level management for all components.

224. The KCB Foundation operates strictly as a contracted implementation partner under a legal agreement with KCB Bank. It does not hold Executing Entity status and does not assume any fiduciary, financial management, or decision-making responsibilities:

- Delivers training and capacity building programmes for farmers, MSMEs, and financial institutions.
- Strengthens market linkages by facilitating engagement between CST providers and MSMEs.
- Supports institutional capacity building and knowledge sharing to promote climate smart financing across Kenya's financial sector.
- Implements activities under the supervision and fiduciary control of KCB Bank, in line with the Operations Manual.

225. National Designated Authority (NDA)

- Provides strategic oversight, ensuring program alignment with Kenya's Updated NDC.
- Engages with regulatory bodies to promote climate finance policy adoption.
- Supports coordination with Kenya's GCF Country Programme and private sector stakeholders.

226. Programme Stakeholders

- Farmers and MSMEs: Primary beneficiaries of concessional loans and technical support.
- CSTs Providers: Partner with KCB to ensure an accessible supply chain for CSTs.
- Financial Institutions: Share knowledge and engage in potential replication of climate finance models.
- Business Associations and Cooperatives: Assist in outreach, raising awareness, knowledge sharing, training, and ensuring market access.

Financial Flow and Legal Arrangements

227. The CST Facility operates as a blended finance model, integrating concessional funding from the GCF with co-financing from KCB to pass concessionality to end borrowers with lower interest rates, and reduced fees and hence, attract private sector participation among MSMEs and farmer for CST adoption. The GCF provides a \$15M senior loan for national application for 10 years and a \$20.3M) guarantee for 7 years to reduce the credit risk associated with lending to hardest-to-reach MSMEs and farmers in Cluster 1, so-called ASALs counties, and Cluster 2 with high climate risk impact. KCB complements this with a \$50M senior loan, ensuring financial sustainability and scale. Additionally, technical assistance and Programme implementation are funded through a \$11.60M grant, of which \$8.332M comes from the GCF and \$3.263M from KCB as in-kind, supporting capacity-building initiatives, regulatory improvements, and market linkage activities.

228. Loan disbursement is facilitated through KCB's branch network and digital lending platforms, ensuring accessibility for MSMEs and farmers. Borrowers receive concessional credit to adopt CSTs, while technical assistance is provided to strengthen their financial literacy and enhance climate risk management. To ensure long-term sustainability, loan repayments are reinvested into the CST facility, allowing continuous financing for CST adoption over a 10-year period. This recycling mechanism maximizes climate impact and enables the program to expand its reach without additional concessional funding.

229. KCB will begin repaying the GCF loan from Year 6 to Year 10. A legal agreement between GCF and KCB defines fiduciary responsibilities, compliance requirements, and reporting obligations.

230. KCB Bank will enter into contractual arrangements with implementation support partners - including the KCB Foundation and specialized consulting firms - to support the delivery of selected activities under Components 1 and 2. These partners will be engaged strictly through service contracts to provide technical expertise or logistical support for technical assistance and outreach. All such engagements will be governed by KCB Bank's procurement and contracting procedures, and KCB Bank will retain full fiduciary control and decision-making authority.

231. These contractual arrangements do not constitute Subsidiary Agreements, and none of the partners - including the KCB Foundation - will assume Executing Entity functions. No fiduciary, financial-management, or Programme-level decision-making responsibilities will be transferred. All implementation support will be carried out under the supervision and authority of KCB Bank, in line with GCF requirements and the Programme's Operations as shown in Figure 3.

CST Facility Programme - Implementation Chain

KCB Bank (Accredited Entity and Executing Entity)

KCB Foundation (Contracted Implementation Partner)

↓ operates under KCB Bank's authority and supervision; no transfer of EE functions

Consultants and Technical Experts

↓ procured by KCB Bank to deliver specialised technical inputs

Figure 3: Implementation Chain

232. KCB Bank serves as both AE and EE for the CST Facility Programme. It retains full fiduciary responsibility, procurement authority, and decision-making power across all components. All Programme resources - financial and technical - are managed, supervised, and accounted for through KCB Bank's systems, in line with GCF fiduciary standards and national banking regulations.
233. KCB Foundation (Contracted Implementation Partner). The KCB Foundation is engaged solely as an implementation partner through a service contract with KCB Bank. It supports delivery of selected activities under Components 2 and 3, particularly those related to capacity building, outreach, and market linkages. The Foundation does not hold Executing Entity status and does not assume fiduciary, financial-management, or Programme-level decision-making responsibilities. All activities implemented by the Foundation are carried out under the direction, oversight, and procurement controls of KCB Bank, as stipulated in the Programme Operations Manual.
234. Consultants and Technical Experts (Specialised Service Providers). Consultants, firms, and technical experts will be procured by KCB Bank in accordance with its procurement procedures and GCF requirements. They will provide specialised technical assistance for Components 2 and 3, including climate-impact tracking, CST market development, MSME capacity building, and institutional strengthening. These providers operate strictly as service contractors, with no fiduciary authority or implementation autonomy.
235. PMU will implement a robust risk mitigation framework, ensuring compliance with: GCF Environmental and Social Safeguards, Gender Action Plan, Kenyan regulatory frameworks, regular audits and performance evaluations to ensure transparency.
236. With a proven track record, Kenya's most extensive banking network, and pioneering climate finance initiatives, KCB Bank is well-positioned to implement the CST Facility Programme, ensuring effective on-lending, capacity-building, and knowledge dissemination to drive long-term climate resilience in Kenya's MSME and agricultural sectors.

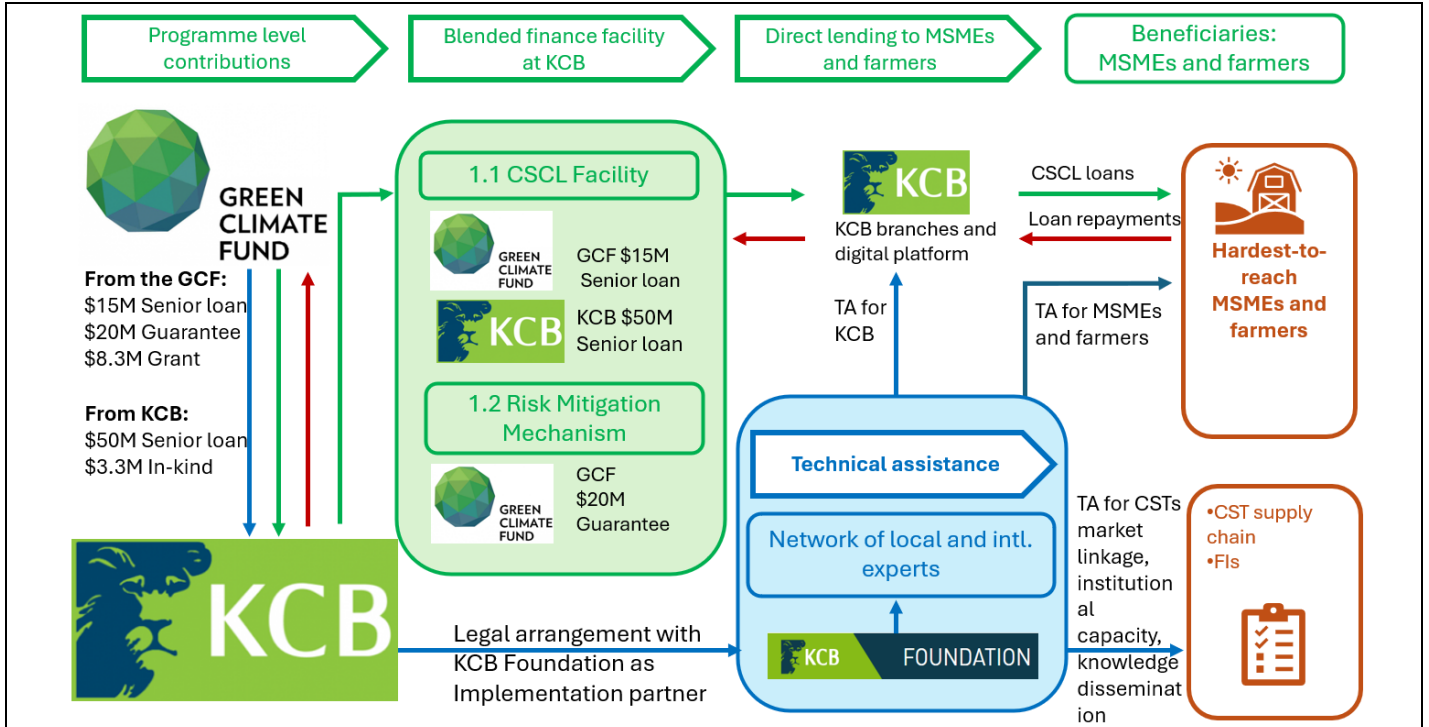


Figure 3: Flow of Funds of the CST Facility Programme

B.5. Justification for GCF funding request (max. 1000 words, approximately 2 pages)

Explain why the project/programme requires GCF funding to address mitigation or adaptation measures, i.e. Why is the project/programme not currently being financed by public and/or private sector? Which market failure is being addressed with GCF funding? Are there any other domestic or international sources of financing?

Explain why the proposed financial instruments were selected in light of the proposed activities and the overall financing package. i.e. What is the coherence between activities financed by grants and those financed by reimbursable funds? How were co-financing amounts and prices determined? How does the concessionality of the GCF financing compare to that of the co-financing? If applicable, provide a short market read on the prevailing of the pricing and/or financial markets for similar projects/programmes.

Justify why the level of concessionality of the GCF financial instrument(s) is the minimum required to make the investment viable. Additionally, how does the financial structure and the proposed pricing fit with the concept of minimum concessionality? Who benefits from concessionality?

In your answer, please consider the risk sharing structure between the public and private sectors, the barriers to investment and the indebtedness of the recipient. Please reference relevant annexes, such as the feasibility study, economic analysis or financial analysis when appropriate.

237. Kenya's commitment to addressing climate change is evident through its Updated NDC (2020), which outlines the need for approximately USD 62 billion between 2020 and 2030 to implement both mitigation and adaptation actions. This includes USD 17.7 billion for mitigation and USD 43.9 billion for adaptation efforts. Despite these ambitious targets, there remains a significant financing gap, particularly in adaptation sectors. In 2018, only 11.7% of climate finance in Kenya was directed towards adaptation, with the largest shortfall observed in the water and blue economy sector²¹³.

238. In March 2021, the International Finance Corporation (IFC), in collaboration with partners such as the SANAD Fund for MSMEs, the Belgian Investment Company for Developing Countries (BIO), and Symbiotics, extended a loan of up to USD 150 million to KCB Bank Kenya. This funding aimed to bolster KCB's capital base to finance climate-friendly projects and support SMEs, with a particular focus on businesses owned by women. The loan facilitated investments in areas like clean energy, green buildings, and climate-smart agribusinesses, aligning with Kenya's climate objectives.

²¹³ [The-Landscape-of-Climate-Finance-in-Kenya.pdf](#)

239. Building upon this foundation, KCB Bank Kenya is developing this specific Programme to further enhance the adoption of CSTs among hardest-to-reach MSMEs and farmers in an inclusive and equitable manner with priority given to women and youth, which are not served by other programmes due to high risk profile of the targeted beneficiaries. This initiative seeks to address persistent barriers that hinder the most vulnerable - hardest-to-reach MSMEs and smallholder farmers from accessing and implementing CSTs. GCF intervention creates a unique opportunity not only to serve the most vulnerable but to create a sustainable impact of the program through technical assistance by building capacity, strengthening market linkages for a sustainable CSTs supply chain, and improving MSMEs and farmers access to markets. Additionally, it focuses on building institutional capacity and the revision of tools and standards, promoting the integration of climate-smart solutions into MSME operations.
240. Both the IFC loan and this CST facility Programme are designed to promote sustainable economic growth by financing climate-friendly projects and supporting MSMEs in adopting green technologies. Bother initiatives emphasizes the importance of empowering MSMEs, recognizing their critical role in driving economic development and innovation in climate-smart solutions. Also, both efforts aim to enhance climate resilience by facilitating investments in renewable energy, energy efficiency, and climate-smart agricultural practices.
241. While the IFC loan provided essential capital to initiate green financing, the CST facility Programme introduces several additional elements that enhance its impact:
- The GCF provides concessional funding that enables KCB to offer **more favorable loan terms and easier access to financing for the most vulnerable MSMEs and farmers as compared to the baseline**, promoting the adoption of CSTs compared to standard market terms.
 - The program leverages the GCF grant to fund comprehensive **capacity-building components** aimed at strengthening the technical and climate risk management skills of hardest-to-reach MSMEs and farmers, ensuring they can effectively implement and benefit from CSTs sustainably.
 - **Active knowledge sharing** of the project's progress and lessons learned will be catalytic in replicating KCB's example within the financial sector, extending its impact beyond this initiative.
 - GCF intervention is crucial in **addressing the barrier of limited or no equitable market access to CSTs** for the hardest-to-reach MSMEs and farmers. The planned activities, supported by the GCF grant, will ensure private sector participation in building a sustainable supply chain, enabling vulnerable MSMEs and farmers to access and adopt CSTs.
 - By focusing on **building institutional capacity and the creation** of an enabling environment, the program addresses systemic barriers that have historically impeded MSMEs from adopting climate-smart solutions.
 - The program specifically targets the development of **gender-sensitive financial products**, ensuring that hardest-to-reach women-owned businesses have equitable access to resources and opportunities in the green economy. **Youth** will also be promoted in accessing capacity-building opportunities.
242. **The World Bank has committed substantial resources, including a USD 250 million program**, to support climate-related projects in Kenya. While this investment is significant, it primarily addresses large-scale infrastructure and policy reforms. However, the unique challenges faced by MSMEs and farmers, especially those that are hardest-to-reach, require tailored interventions that this CST facility Programme offers leveraging its network and digital on-lending platform with concessional funding, capacity building, and market linkage support specifically designed for MSMEs and farmers, ensuring that the benefits of climate finance reach the grassroots level.
243. The co-financing amounts and pricing for the CST facility were determined based on the financial needs of MSMEs, the affordability of CSTs, and prevailing market conditions for green finance in Kenya. The total financing package includes a USD 15 million concessional loan from GCF, a USD 50M commercial loan from KCB, and a USD 20.3112M guarantee from GCF to de-risk lending to hardest-to-reach MSMEs and farmers. KCB has identified the facility size based on the potential pipeline among the hardest-to-reach MSMEs and farmers. Justification of the guarantee size is explained in the section B.3: The concessional funding will be passed to the beneficiaries through concessional funding and ensures that hardest-to-reach MSMEs and farmers, particularly those operating in high-risk environments, can access affordable credit that would otherwise be unavailable through commercial lending.
244. In Kenya, MSMEs face significant challenges in accessing affordable financing, with prevailing **interest rates often posing a substantial barrier**. According to the 2022 MSME FinAccess Business Survey Report by the Central Bank of Kenya, commercial banks charged average interest rates ranging from 12.6% to 13.9% on MSME loans,

with microfinance banks (MFBs) charging between 20% and 21%.²¹⁴ Specifically, micro enterprises faced the highest rates, averaging 15.8% from commercial banks and up to 32% from MFBs. Individual financial institutions offer varying rates. These prevailing market rates highlight the financial burden on MSMEs, underscoring the necessity for concessional funding. The CST facility Programme aims to alleviate this burden by providing more favorable loan terms, thereby enhancing the accessibility and affordability of climate-smart technologies for MSMEs.

245. The GCF guarantee is essential to catalyze the CST Facility's impact, as the GCF loan alone cannot sufficiently de-risk lending to the most vulnerable MSMEs and farmers. This structure ensures affordability, expands outreach to underserved populations, and sustains financial viability with a positive NPV and robust portfolio performance. While previous initiatives - such as IFC and World Bank green finance programs - have supported climate-related lending in Kenya, the CST Facility uniquely targets the highest-risk, climate-vulnerable MSMEs and farmers with tailored financial products, capacity-building, and strengthened market linkages, ensuring that climate finance reaches those who need it most.

246. The Programme's financial structure blends a GCF concessional loan and guarantee, each providing distinct concessional value. The USD 15 million concessional loan yields a grant equivalent of approximately USD 1.8 million (12.2%). Together, the GCF instruments deliver a total grant equivalent of USD 10.2 million (43.5%), significantly improving the risk-return profile of the CST Facility, mobilizing private capital, and enabling climate-resilient investment at scale. The Programme is designed to deliver significant climate impact relative to the scale of investment, with an estimated lifetime reduction of 3,928,727 tonnes of CO₂ equivalent and improved climate resilience for 935,692 total beneficiaries. Based on the allocation of GCF resources - 48% toward mitigation and 52% toward adaptation - the cost of climate impact is calculated at approximately USD 5.33 per tonne of CO₂ reduced (48% of GCF total funding / 3,928,727 tCO₂e) and USD 24.25 per beneficiary (52% of GCF total funding / 935,692 total beneficiaries). The higher adaptation costs are justified by the Programme's unique and unprecedented role in Kenya in tailoring structured finance to enable access for the hardest-to-reach MSMEs and farmers. By addressing systemic barriers including technical assistance that have historically excluded these segments from commercial lending, the Programme ensures that climate-smart technologies become accessible to those most in need of resilience-building support. The financing structure reflects a mobilization ratio of 1:1.22, meaning that the USD 43.643 million GCF contribution is expected to leverage USD 53.263 million in co-financing from KCB.

B.6. Exit strategy (max. 500 words, approximately 1 page)

Explain how the project/programme will successfully exit once implementation is completed, including how results and benefits will continue beyond the project/programme period and how the contribution to paradigm shift will be maintained.

Include information pertaining to the longer-term ownership, project/programme exit strategy, operations and maintenance of investments (e.g. key infrastructure, assets, contractual arrangements). In case of private sector, please describe the GCF's financial exit strategy through Initial Public Offerings, trade sales, etc.

Provide information on additional actions to be undertaken by public and private sector or civil society as part of the project/programme to ensure sustainability of the results attained.

247. The CST facility is designed to ensure long-term financial sustainability and continued impact beyond the GCF funding period. The facility will be structured to recycle funds over a 10-year period, with loan repayments beginning from year 6 and continuing until year 10, after 5 years of a grace period. This flow of funds plan allows for maximizing reinvestment into climate-smart on-lending during implementation period aiming to realize high climate impact potential of the GCF concessional funding. This revolving financial model ensures that eligible categories of MSMEs and smallholder farmers continue accessing concessional CST funding for CSTs adoption. By recycling the GCF concessional funding several time the CST facility will maximize CSTs adoption through tailored financing which allows to demonstrate proof of concept of CSTs benefits to wider number of farmers and MSME. Therefore, the Programme's impact will be maintained even after GCF funding is phased out.

248. Under the current Programme structure, the CST Facility will be capitalized through equal drawdowns from GCF (USD 15 million) and KCB (USD 50M) over the implementation period. Loan repayments to the GCF will commence in Year 6 and continue through Year 10, following a schedule predefined in the FAA. The financial model confirms

²¹⁴ [2022 Survey Report on MSME Access to Bank Credit](#)

- the feasibility and robustness of full loan repayment to both GCF and KCB by Year 10 under this Programme, with KCB bearing full responsibility for repayment of the GCF loan.
249. The GCF Guarantee is proposed for a 7-year tenor as it is intended to provide temporary, targeted de-risking during the initial market-building phase. During implementation, KCB will progressively reduce portfolio risk through capacity building, strengthened market linkages, and - most importantly - Activity 2.1.4, which focuses on identifying the drivers of non-performance, refining underwriting processes, and continuously adjusting pricing, eligibility criteria, and sub-loan terms. As these risk-mitigation mechanisms are integrated into KCB's credit policy, lending guidelines, core banking systems, and TA activities, the CST Facility portfolio is expected to become increasingly resilient, thereby reducing the need for guarantee support beyond the initial 7-year period.
250. A key aspect of the CST facility is a proof of concept to stimulate the Commercial Bank to scale up CST adoption by the most vulnerable and underserved MSMEs and farmers. As the Programme demonstrates the viability of lending to the hardest-to-reach MSMEs and farmers, other commercial lenders and financiers will be encouraged to join or replicate the model beyond this Programme. The use of KCB's extensive branch network and digital lending platform for on-lending will further enhance the attractiveness of the facility to new financial players. Over time, this transition will ensure that climate finance solutions become mainstream within Kenya's financial ecosystem, scaling up access to CSTs through commercial markets.
251. While the successful demonstration of the CST Facility may generate interest from other financial institutions (FIs) to co-finance or replicate similar programmes, such future participation lies outside the scope of the current GCF-KCB initiative. All repayment obligations under this Programme - both to GCF and KCB - are fully defined and will be executed as planned, irrespective of any future co-financing. Should additional appetite emerge, KCB remains open to supporting similar facilities with other partners following the completion of this proof-of-concept.
252. To ensure long-term sustainability, the Programme integrates comprehensive knowledge retention and institutional capacity-building measures. The GCF grant will be utilized for training KCB staff on climate-smart lending, digital lending solutions, and climate risk management, ensuring that institutional knowledge is embedded within the financial system. In addition to internal capacity building within KCB, the Programme will conduct targeted training for hardest-to-reach farmers, MSMEs, business associations, and financial institutions to enhance their understanding of CSTs and climate risk assessment tools. Capacity-building activities will include climate finance literacy, application of digital credit platforms, CSTs business case development, and technical support for CSTs vendors and cooperatives. These interventions will strengthen the knowledge base of all stakeholders involved in climate finance, ensuring sustained impact and institutional resilience. Training materials and capacity-building resources will be made available in both digital and printed formats, allowing continued access for farmers, MSMEs, and financial sector stakeholders beyond the project's timeline.
253. The Programme will also focus on strengthening market linkages to ensure the sustainability of the CSTs supply chain. By identifying and collaborating with CSTs vendors, manufacturers, farmer cooperatives, and technology providers, the Programme will enhance access to quality CSTs for hardest-to-reach MSMEs and farmers. The initiative will also support CSTs vendors in scaling up their distribution networks by integrating them into KCB's digital lending platform and knowledge-sharing mechanisms. These efforts will improve CSTs affordability by increasing demand which will reduce cost for CSTs providers, streamline distribution channels, and enhance the overall efficiency of the market, ensuring long-term availability and accessibility of climate-smart solutions.
254. The Programme's knowledge-sharing component will ensure that lessons learned, best practices, and financial models developed under the CST facility are widely disseminated. KCB will actively share Programme outcomes with other financial institutions, policymakers, and development partners, fostering replication of climate-smart lending practices across Kenya's financial sector. This knowledge exchange will promote the adoption of concessional finance models and encourage other banks to integrate CSTs lending into their portfolios, catalyzing a broader paradigm shift in sustainable finance. Through continuous engagement with regulators, financial market representatives, and international development partners, the Programme will drive long-term change in climate finance accessibility and climate resilience across Kenya.
255. In summary, the CST facility is structured to ensure long-term sustainability by establishing a revolving lending model, attracting private sector investment, embedding climate finance expertise within Kenya's financial sector, and fostering widespread knowledge sharing. These elements will enable the continued expansion of climate-smart financing, ensuring lasting benefits for MSMEs, farmers, and Kenya's broader transition to a low-carbon, climate-resilient economy.

C. FINANCING INFORMATION						
C.1. Total financing						
(a) Requested GCF funding (i + ii + iii + iv + v + vi + vii)	Total amount			Currency		
	43.6432			million USD (\$)		
GCF financial instrument	Amount	Tenor	Grace period	Pricing		
(i) Senior loans	15.00	as per TS	as per TS	as per TS		
(ii) Subordinated loans	Enter amount	Enter years	Enter years	Enter %		
(iii) Equity	Enter amount			Enter % equity return		
(iv) Guarantees	20.3112	as per TS				
(v) Reimbursable grants	Enter amount					
(vi) Grants	8.332					
(vii) Results-based payments	Enter amount					
(b) Co-financing information	Total amount			Currency		
	53.263			million USD (\$)		
Name of institution	Financial instrument	Amount	Currency	Tenor & grace	Pricing	Seniority
KCB	Senior Loans	50.00	million USD (\$)	as per TS years Enter years	Enter%	senior
KCB	In kind	3.263	million USD (\$)	Enter years Enter years	Enter%	Options
Click here to enter text.	Options	Enter amount	Options	Enter years Enter years	Enter%	Options
Click here to enter text.	Options	Enter amount	Options	Enter years Enter years	Enter%	Options
(c) Total financing (c) = (a)+(b)	Amount			Currency		
	96.9062			million USD (\$)		
(d) Other financing arrangements and contributions (max. 250 words, approximately 0.5 page)	<p>Please explain if any of the financing parties including the AE would benefit from any type of guarantee (e.g. sovereign guarantee, MIGA guarantee).</p> <p>Please also explain other contributions such as in-kind contributions including tax exemptions and contributions of assets.</p> <p>KCB will provide an in-kind contribution valued at up to \$3.263 million, covering overhead costs associate with the project implementation, such as costs office space and equipment, transportation, staff salaries, and conference facilities. Of this total, \$0.763 million will be allocated to Programme output activities, while \$2.50 million will support Project Management Costs (PMC).</p> <p>Please also include parallel financing associated with this project or programme (refer to the co-financing policy).</p> <p>The blended financing from KCB's senior loan and the GCF will be used for on-lending to farmers and MSMEs, who will also provide equity contributions to the CSTs, thereby investing in both the climate and socio-economic impacts envisioned. The required equity</p>					

contribution will vary based on the loan type, ranging from 5% to 30%, in accordance with specific financing requirements.

C.2. Financing by component

Please provide an estimate of the total cost per component and output as outlined in section B.3. above and disaggregate by source of financing. More than one co-financing institution can fund a single component or output. Provide the summarised cost estimates in the table below and the detailed budget plan as annex 4.

This table should match the one presented in the term sheet and be consistent with information presented in other annexes including the detailed budget plan and implementation timetable.

In case of a multi-country/region programme, specify indicative requested GCF funding amount for each country in annex 17, if available.

Component	Output	Indicative cost million USD (\$)	GCF financing		Co-financing		
			Amount million USD (\$)	Financial Instrument	Amount million USD (\$)	Financial Instrument	Name of Institutions
1. Establishment of dedicated blended finance CST Facility with de-risking tools for direct lending to MSMEs and farmers through KCB network and digital solutions.	1.1 CST Facility is established operationalized	<u>65.00</u>	<u>15.00</u>	<u>Senior loans</u>	<u>50.00</u>	<u>Senior loans</u>	<u>KCB</u>
		<u>0.11</u>	<u>0.09</u>	<u>Grants</u>	<u>0.02</u>	<u>In-Kind</u>	<u>KCB</u>
	1.2 Risk mitigation mechanism (RMM) for CST Facility is deployed	<u>20.31</u>	<u>20.3112</u>	<u>Guarantees</u>	-	<u>NA</u>	
2. Strengthening climate impact assessment and enabling CST uptake	2.1 CIRAF is strengthened in KCB and promoted across Kenya's banking sector	<u>1.15</u>	<u>0.81</u>	<u>Grants</u>	<u>0.34</u>	<u>In-Kind</u>	<u>KCB</u>
	2.2 CSTs are promoted through capacity building and improved market linkage	<u>2.25</u>	<u>2.16</u>	<u>Grants</u>	<u>0.09</u>	<u>Choose an item.</u>	<u>Click here to enter text.</u>
3. Institutional capacity, partnerships, and knowledge systems for scaling up CST Facility adoption.	Output 3.1 Institutional capacity is strengthened for origination of equitable CST financial products to scale up CST Facility adoption.	<u>0.41</u>	<u>0.41</u>	<u>Grants</u>	-	<u>Choose an item.</u>	<u>Click here to enter text.</u>
	Output 3.2 Knowledge systems and collaboration enhanced for CST Facility uptake and climate impact tracking.	<u>0.68</u>	<u>0.52</u>	<u>Grants</u>	<u>0.16</u>	<u>In-Kind</u>	<u>KCB</u>
Gender Action Plan		<u>0.60</u>	<u>0.60</u>	<u>Grants</u>	-	<u>NA</u>	
ESS Safeguards		<u>1.00</u>	<u>0.85</u>	<u>Grants</u>	<u>0.15</u>	<u>In-Kind</u>	<u>KCB</u>
Monitoring Costs		<u>0.86</u>	<u>0.86</u>	<u>Grants</u>	-	<u>NA</u>	
PMC		<u>4.545</u>	<u>2.045</u>	<u>Grants</u>	<u>2.50</u>	<u>In-Kind</u>	<u>KCB</u>

Indicative total cost (USD)	<u>96.9062</u>	<u>43.6432</u>	<u>53.263</u>
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C.3 Capacity building and technology development/transfer (max. 250 words, approximately 0.5 page)

C.3.1 Does GCF funding finance capacity building activities?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
C.3.2. Does GCF funding finance technology development/transfer?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

If the project/programme is expected to support capacity building and technology development/transfer, please provide a brief description of these activities and quantify the total requested GCF funding amount for these activities, to the extent possible.

256. Capacity building and technology transfer are at the core of this programme, as they are essential for overcoming the key barriers to reaching the hardest-to-reach farmers and MSMEs and enabling their adoption of CSTs. The lack of technical knowledge, access to finance, and market linkages has slowed the uptake of climate-resilient solutions, limiting progress toward Kenya's NDCs. This project directly tackles these challenges by strengthening the capacity of financial institutions, beneficiaries, and stakeholders, ensuring a systemic shift toward low-carbon, climate-smart agriculture and business practices.

257. Through targeted training and technical assistance, financial institutions - particularly KCB - will be equipped to develop and manage green finance products, assess climate risks, and ensure compliance with GCF environmental, social, and gender policies. Farmers and MSMEs will receive hands-on training on adopting climate-smart solutions, such as efficient water use, sustainable soil management, and clean energy technologies, which will enhance climate resilience and economic stability.

258. Technology transfer plays a pivotal role in ensuring that the hardest-to-reach communities can effectively transition to climate-smart practices. The adoption of digital lending solutions (DLS) and the Climate Assessment for Financial Institutions (CAFI) tool will integrate real-time climate impact monitoring and compliance tracking into KCB's lending platforms. This will enhance financial accessibility, ensure transparency, and create a scalable model for expanding green finance.

259. This programme is built on the concept that access to finance must be coupled with capacity building and market linkages to effectively reach underserved farmers and MSMEs. Without GCF grant support, these essential components cannot be implemented at scale, and the hardest-to-reach populations will remain excluded from the transition to climate-smart economic opportunities. By bridging knowledge and financial gaps, this project catalyses a paradigm shift, ensuring that Kenya's most vulnerable communities can access, implement, and sustain climate-smart technologies, in direct alignment with Kenya's NDCs and long-term sustainability goals.

D. EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

This section refers to the performance of the project/programme against the investment criteria as set out in the GCF's [Initial Investment Framework](#).

D.1. Impact potential (max. 500 words, approximately 1 page)

Describe the potential of the project/programme to contribute to the achievement of the Fund's objectives and result areas. As applicable, describe the envisaged project/programme benefits for mitigation and/or adaptation. Provide the intended outcomes for mitigation by elaborating on how the project/programme contributes to low-emission sustainable development pathways. Provide the intended outcomes for adaptation by elaborating on how the project/programme contributes to increased climate-resilient sustainable development. Calculations should be provided as an annex. This should be consistent with section E.3 reporting GCF's core indicators.

Contribution to GCF's Objectives and Result Areas

260. This program directly supports GCF's strategic priorities (2024-2027) by establishing greenfield financial facilities, scaling climate-smart financing for MSMEs and rural farmers, and enhancing climate resilience and low-emission development. The program aligns with Kenya's NDC and NAP by promoting renewable energy, climate-smart agriculture, sustainable water management, and circular economy innovations to reduce GHG emissions and strengthen adaptive capacity.

261. This initiative will expand access to concessional finance through the Climate Smart Technology Facility (CST) facility, facilitating on-lending for farmers and MSMEs investing in renewable energy, climate-resilient agriculture, water management technologies, and waste-to-energy solutions. Additionally, digital lending solutions will be deployed to reach remote areas, ensuring financial inclusion for marginalized groups, particularly women, youth, and hardest-to-reach farmers and MSMEs. It will also strengthen local climate entrepreneurship through expanded market linkages and blended finance mechanisms.

Mitigation Impact

262. The program will drive GHG emissions reductions across renewable energy, energy efficiency, clean cooking, and waste management sectors, aligning with Kenya's NDC commitment to a 32% reduction in emissions by 2030. The estimated GHG emission reduction is 3,928,727 tCO_{2e}.

263. Key mitigation actions (MRA1 and MRA3):

1. Renewable energy for Cooperatives working in food security – 25% of resources will be allocated to solar and biogas energy adoption in MSMEs.
2. Energy efficiency Cooperatives working in food security – 5% of resources will support the adoption of energy-efficient technologies in MSMEs.
3. Waste management – 8% of resources will be dedicated to biodigesters for waste-to-energy conversion, particularly in agriculture and fisheries, reducing methane emissions. This will also include livestock brought under sustainable management and fish stock managed under climate-resilient practices.
4. Solar-powered solutions and bio-composting in agriculture – 5% of resources will support the adoption of solar-powered cold storage, hybrid dryers, and agro-processing units to reduce food waste emissions.
5. Systems for clean cooking based on renewable energy – 10% of resources will be allocated to the distribution of solar and steam-powered cookstoves, household biogas digesters, and portable biogas stoves.

Adaptation Impact

264. Kenya's NAP prioritizes climate-proofing agriculture, water security, and financial systems to enhance resilience against climate shocks. This program will enable MSMEs and smallholder farmers to adopt climate-resilient technologies, reducing exposure to droughts, floods, and erratic rainfall patterns. The total number of the beneficiaries is 935,692, of which 112,145 direct and 823,547 indirect beneficiaries.

265. Key adaptation actions and expected outcomes (ARA2):

1. Climate-resilient agriculture – 45% of CST resources will be allocated to support the expansion of climate-resilient crop production, including agroforestry, drought-resistant seeds, and biochar application. This will also include the integration of sustainable livestock and fisheries management techniques, improving food security in a sustainable way.
2. Integrated water management – 7% of resources will be allocated to solar-powered irrigation systems, rainwater harvesting, and atmospheric water generators, ensuring reliable water access.

3. Climate-resilient fisheries (blue economy integration) – 3% of resources will be dedicated to the adoption of sustainable fisheries management practices, improving resilience to ocean temperature fluctuations and habitat degradation.

266. This initiative is scalable and replicable, setting a model for future climate-smart finance and MSME-led economic growth in Kenya and beyond.

D.2. Paradigm shift potential (max. 500 words, approximately 1 page)

Paradigm shift potential is defined as 'degree to which the proposed activity can catalyse impact beyond a one-off project or programme investment'. In this section, elaborate on the contribution to paradigm shift and how the proposed project/programme aims to contribute towards it based on the theory of change described in section B2(a). Also describe how and to what extent the project/programme will be able to promote or contribute to paradigm shift through the below.

- Potential for scaling up and replication
- Potential for knowledge sharing and learning
- Contribution to the creation of an enabling environment
- Contribution to the regulatory framework and policies
- Overall contribution to climate-resilient development pathways consistent with relevant national climate change adaptation strategies and plans

267. The CST facility program in Kenya is designed to catalyze a paradigm shift by transforming access to CSTs for the hardest-to-reach MSMEs and farmers. The program will enable systemic market transformation by addressing financial, technological, market, and gender barriers that have historically limited CST adoption by the vulnerable category of MSMEs and farmers.

268. The hardest-to-reach MSMEs and farmers in Kenya face multiple challenges that hinder their participation in climate finance and sustainable economic growth. These include geographical barriers (remote locations, lack of infrastructure), economic constraints (high cost of capital, limited financial literacy), technological gaps (low access to modern CSTs), and socio-cultural factors (limited participation of women, youth, and marginalized groups in climate finance). By integrating concessional financing, digital lending solutions, technical assistance, and strengthened market linkages, the program will expand CST adoption beyond a one-off investment, fostering a self-sustaining, climate-resilient MSME ecosystem in Kenya.

269. To ensure equitable outreach and product-market fit, the program will deploy a tailored digital platform designed specifically for CST products, enabling remote MSMEs and farmers to access climate-smart technologies, financing options, and market linkages in real time. The platform will be customized to reflect the three regional clusters identified through a compound climate vulnerability index, developed using the IPCC framework. These clusters reflect differentiated exposure to climate hazards, food insecurity, and socio-economic exclusion. Cluster 1, comprising counties with the highest vulnerability, faces chronic underinvestment and minimal presence of structured finance. As a result, many existing climate programs and technologies cannot be deployed in these areas due to lack of financing and market infrastructure. The CST Facility directly addresses this gap by introducing regionally tailored credit products, concessional financing, and bundled technical assistance - unlocking CST adoption where commercial banks and development programs have historically been absent. This approach ensures that climate finance reaches the most vulnerable, catalyzing inclusive resilience and enabling the operationalization of national climate strategies in underserved regions.

Potential for scaling up and replication

270. The program establishes a dedicated Climate Smart Technology Facility (CST) within KCB, the bank with the biggest network across the country, ensuring sustained financial access for MSMEs and smallholder farmers to adopt CSTs. This facility is structured to leverage blended finance from the GCF and KCB. The CST facility Programme has a potential to stimulate other FIs to replicate CST financing for underserved communities after the demonstration of the proof of concept. By sharing knowledge about the CST facility lessons learned and results and stakeholder engagement activities, the program will promote from replication of the on-lending for CSTs adoption, ensuring its long-term sustainability and expansion.

271. Promoting the adoption of CSTs by MSMEs is even more attractive for Kenyan financial institutions, as the Central Bank of Kenya aims to enhance climate risk management in the banking sector through the draft Climate Risk Disclosure Framework. This framework will help Kenyan commercial banks standardize climate-related

disclosures, improve investor decision-making, and foster accountability and sustainability in the financial system²¹⁵.

272. The program's design ensures that successful models can be replicated in Kenya and other African countries facing climatic challenges coupled with financial, technological, market, and gender barriers. By embedding CSTs financing within the formal banking sector of Kenya, the initiative mainstreams climate finance for MSMEs and small-holder farmers creating a scalable blueprint that other financial institutions can adopt.

273. Additionally, the program's focus on climate impact tools and digital lending solutions facilitates broader outreach to remote areas with effective climate impact assessment, reducing operational costs and enhancing accessibility for marginalized communities. This digital-driven approach is scalable and adaptable for replication in other markets with limited banking infrastructure.

Potential for building institutional capacity, knowledge sharing and learning

274. The program places a strong emphasis on knowledge dissemination and capacity building to empower MSMEs and farmers with the skills necessary to adopt, implement, and maximize the benefits of CSTs. By fostering continuous learning and innovation, the program ensures that CSTs are not only accessible but also sustainably integrated into local business and agricultural practices supported by sustainable market linkage.

275. To achieve this, the program integrates:

- Extensive training programs on CST application, financial literacy, and climate risk management, equipping MSMEs and farmers with the technical expertise needed to adopt and sustain CST use.
- Training KCB staff to become effective agents in promoting the adoption of CSTs.
- A climate impact and risk assessment framework (CIRAF) within KCB Bank, standardizing climate risk assessment tools to improve MSME financing decisions and risk management strategies.
- A digital knowledge-sharing platform, facilitating peer-to-peer learning, best practice exchange, and real-time CST market intelligence to strengthen market linkages and drive wider adoption of CSTs.
- Partnerships with technology providers, research institutions, and policy experts, ensuring continuous knowledge flow on emerging CST innovations and best practices.

276. Sharing knowledge on the program's progress and lessons learned will be catalytic in replicating KCB's example within the financial sector, extending its impact beyond this initiative and fostering a broader transformation in climate finance across Kenya and beyond.

Contribution to the creation of an enabling environment

277. The hardest-to-reach MSMEs and farmers in Kenya face persistent financial, technological, market, and regulatory barriers that limit CSTs adoption. The program directly removes these barriers by:

- Tailored capacity building for MSMEs and farmers to benefit from use of CSTs and climate information.
- Providing concessional loans to hardest-to-reach MSMEs and farmers by simplifying access to financing and improving affordability for climate investments.
- Strengthening market linkages, connecting MSMEs to climate-conscious buyers, technology suppliers, and logistics providers.
- Deploying improved digital lending solutions, enhancing financial inclusion in remote and underserved regions.
- Supporting institutional capacity for tailored credit products.

278. The planned activities, supported by the GCF grant, will ensure private sector participation in building a sustainable supply chain, enabling vulnerable MSMEs and farmers to access and adopt CSTs.

D.3. Sustainable development (max. 500 words, approximately 1 page)

²¹⁵ [Public Notice – Issuance of the Draft Climate Risk Disclosure Framework for the Banking Sector | CBK](#)

Describe the wider benefits and priorities of the project/programme in relation to the Sustainable Development Goals and provide the potential in terms of:

- *Environmental co-benefits*
- *Social co-benefits including health co-benefit*
- *Economic co-benefits*
- *Gender-sensitive development benefit*

279. The Programme delivers multidimensional climate and development impact, aligned with the Sustainable Development Goals and GCF investment criteria. Through blended finance and inclusive outreach, it generates environmental, social, economic, and gender-responsive co-benefits across Kenya's climate-vulnerable regions.

Environmental Co-Benefits

280. The Programme is expected to reduce 3,928,727tCO₂e over its lifetime, contributing directly to SDG 13 (Climate Action). It promotes climate-smart technologies, sustainable land use, and regenerative practices that enhance ecosystem services and biodiversity. Notably, 118,242 livestock units and 11,375 tonnes of fish stocks are projected to transition to sustainable management, supporting SDG 15 (Life on Land) and SDG 14 (Life Below Water). Additionally, 66,263 hectares of natural resources will be placed under improved, low-emission, and climate-resilient management practices.

281. Adoption of clean cooking technology also contributes to Environmental, Social, and Health Benefits that reduce PM2.5 air pollution exposure.

Social Co-Benefits

282. The Programme will contribute to social empowerment and inclusive participation via improved access to clean water, clean cooking, and solar-powered technologies, with targeted support for women and youth through capacity building and concessional credit. The Programme is expected to create 473,495 additional jobs, while improving food and water security for millions. Specifically:

- 814,052 beneficiaries will experience improved food security, including 97,567 direct and 716,486 indirect beneficiaries
- 175,477 individuals will benefit from more climate-resilient water security, including 26,186 direct and 149,291 indirect beneficiaries
- 76,279 households and MSMEs will adopt clean cooking technologies, reducing indoor air pollution and improving health outcomes.

283. These interventions contribute to SDG 2 (Zero Hunger), SDG 3 (Good Health and Well-being), and SDG 6 (Clean Water and Sanitation) by enhancing nutrition, reducing exposure to climate-related health risks, and improving access to safe water and energy.

Economic Co-Benefits

284. With a 1:1.22 mobilization ratio, the Programme leverages USD 53.263 million in private capital co-financing alongside the USD 43.643 million GCF investment. The Programme supports MSMEs, farmers, and pastoralists through concessional loans and guarantees, unlocking private capital and expanding access to finance. It also enhances productivity and market access for livestock and fisheries, contributing to SDG 8 (Decent Work and Economic Growth) and SDG 9 (Industry, Innovation and Infrastructure).

The GCF intervention improves income and productivity gains for hardest-to-reach – the most vulnerable MSMEs and farmers through adoption of CSTs, improving operational efficiency and resilience to climate risks.

Gender-Sensitive Development Benefit

285. The Programme embeds gender-responsive design, targeting women-led MSMEs and female farmers and pastoralists. Tailored financial products, inclusive outreach, and capacity-building ensure equitable access to climate finance and decision-making. Gender-disaggregated tracking and safeguards reinforce accountability, advancing SDG 5 (Gender Equality) and promoting women's leadership in climate adaptation and sustainable resource management.

D.4. Needs of recipient (max. 500 words, approximately 1 page)

Describe the scale and intensity of vulnerability of the country and beneficiary groups and elaborate how the project/programme addresses the issue (e.g. the level of exposure to climate risks for beneficiary country and groups, overall income level, etc.). Describe how the project/programme addresses the following needs:

- Vulnerability of the country and/or specific vulnerable groups, including gender aspects (for adaptation only)
- Economic and social development level of the country and the affected population
- Absence of alternative sources of financing (e.g. fiscal or balance of payments gap that prevents government from addressing the needs of the country; and lack of depth and history in the local capital market)
- Need for strengthening institutions and implementation capacity

286. Kenya faces severe climate vulnerabilities, with over 80% of its landmass classified as arid and semi-arid lands (ASALs)²¹⁶. These **regions are highly susceptible to climate-induced hazards**, including prolonged droughts, erratic rainfall, and extreme flooding, which significantly disrupt agricultural productivity, water availability, and economic stability²¹⁷. Climate variability, particularly frequent droughts and floods has reduced crop yields, increased livestock mortality, and degraded water resources, exacerbating economic insecurity while Kenya's economic growth is heavily reliant on agriculture, which contributes 33% to GDP and employs over 60% of the workforce²¹⁸.

287. Smallholder farmers and MSMEs in Kenya face significant challenges that hinder their ability to adopt CSTs and sustain resilient livelihoods. These challenges include **economic and financial constraints** like limited access to affordable credit, and infrastructural deficits including unreliable energy and digital connectivity, geographical barriers such as rugged terrain and remote locations. The combined effects of climate variability threaten food security, livelihoods, and energy access, particularly for smallholder farmers and MSMEs that form the backbone of Kenya's rural economy. Economic challenges of MSMEs in Kenya are compounded by the effect of the COVID-19 pandemic²¹⁹ and the war in Ukraine, resulting in price increase on fuel, food, critical inputs for Kenya's manufacturing and agriculture sector.

288. **Women and youth**, who make up a significant portion of the agricultural workforce, face additional barriers to finance, land ownership, and technology access, limiting their ability to adopt climate-resilient practices²²⁰. Only 29% of women are considered empowered in Kenya²²¹.

289. Kenya's energy costs remain high, disproportionately affecting rural MSMEs that lack access to **affordable renewable solutions**. This project aligns with Kenya National Energy Efficiency and Conservation Strategy²²² by financing cooking stoves, renewable energy adoption for food security, ensuring that Cooperatives can transition to clean energy alternatives, reducing their reliance on fossil fuels and lowering operational costs. The Kenya Energy Transition & Investment Plan²²³ highlights the urgent need to expand renewable energy access to support economic resilience and decarbonization efforts, including clean cooking technology.

290. Furthermore, **water and waste management** are essential components of Kenya's climate adaptation strategy. The Kenya Water Act (2016)²²⁴ emphasizes the need for expanded water infrastructure, including solar-powered irrigation, rainwater harvesting, and efficient water use technologies to safeguard livelihoods and ecosystems. The Kenya Sustainable Waste Management Policy (2021)²²⁵ underscores the importance of waste-to-energy initiatives, circular economy models, and improved industrial resource efficiency. The CST facility promotes biomass waste-to-energy solutions, reducing waste-related emissions and supporting sustainable business operations.

291. Despite the critical role of agriculture and MSMEs in Kenya's economy, **access to financial solutions for the hardest-to-reach remains limited**. The high cost of operational expenses and logistical constraints discourage commercial lenders from offering tailored financial products for climate adaptation. Commercial banks often perceive lending to smallholder farmers and MSMEs as high-risk due to climate variability, lack of collateral, and

²¹⁶ [World Bank Document](#)

²¹⁷ [Kenya - Vulnerability | Climate Change Knowledge Portal](#)

²¹⁸ [Kenya at a glance | FAO in Kenya | Food and Agriculture Organization of the United Nations](#)

²¹⁹ [UNDP MSEA MSME Recovery and Resilience Report.pdf](#)

²²⁰ [NAP_Final-Signed_22022017.pdf](#)

²²¹ [UN Women: Kenya](#)

²²² [kenya-national-energy-efficiency-and-conservation-strategy-2020-1.pdf](#)

²²³ [energy.go.ke/sites/default/files/KAWI/Other Downloads/Kenya ETIP 2050 - full doc. final 231023.pdf](#)

²²⁴ [Water Act, 2016 \(No. 43 of 2016\). | UNEP Law and Environment Assistance Platform](#)

²²⁵ [National Sustainable Waste Management Policy 2021](#)

uncertain returns²²⁶. This has resulted in a significant financing gap, hindering the adoption of CSTs. The project's concessional credit facility under KCB's CST will bridge this gap by providing affordable, accessible financing tailored to the needs of underserved farmers and MSMEs.

292. Kenya has secured a \$250 million credit from the World Bank for the National Agricultural Value Chain Development Project (NAVCDP)²²⁷. But despite this significant investment, **the funding is insufficient to meet the extensive needs** of Kenya's MSMEs and smallholder farmers, especially in adopting CSTs and enhancing climate resilience. The scale of climate-related challenges necessitates additional targeted programs to bridge the existing financial and technical gaps.

293. The Central Bank of Kenya (CBK) aims to enhance climate risk management in the banking sector and working on Climate Risk Disclosure Framework supported by EIB²²⁸. This program will support these efforts by showcasing climate assessment best practices through the enhanced **Climate Assessment for Financial Institutions (CAFI)** tool and integrated assessment solutions within KCB's digital lending platform, further strengthening climate risk analysis. And this program's knowledge-sharing component will facilitate scaling these innovations across Kenya's financial sector, promoting data-driven climate finance solutions.

294. Also, effective implementation of climate adaptation strategies requires **robust institutional frameworks and capacity building** within KCB, supply chain, smallholder farmers and MSMEs. The project will work with the financial sector, government agencies, and community organizations to strengthen institutional readiness for climate finance and CST adoption. Key interventions include training MSMEs on climate risk management and CSTs, developing a road map to support CST adoption through financial solutions, enhancing market linkages for MSMEs through technology providers and supply chain financing.

295. To address these pressing vulnerabilities, the CST facility is designed to provide financial and technical support for the adoption of CSTs across key sectors: agriculture, water and waste management, clean energy, and processing efficiency by Cooperatives. This initiative directly aligns with Kenya's Updated NDCs, which call for climate-resilient development, renewable energy expansion, and sustainable agriculture, with a goal of reducing GHG emissions by 32% by 2030. Also, these efforts align with Kenya's Vision 2030²²⁹, the Green Economy Strategy²³⁰, and sectoral policies, ensuring a sustainable and inclusive approach to climate resilience.

D.5. Country ownership (max. 500 words, approximately 1 page)

Please describe how the beneficiary country takes ownership of and implements the funded project/programme. Describe the following:

- Existing national climate strategy
- Existing GCF country programme
- Relevance to and alignment with existing policies such as Nationally Determined Contributions (NDCs), Nationally Appropriate Mitigation Actions (NAMAs), and National Adaptation Plans (NAPs)
- NDCs, NAMAs, and NAPs
- Capacity of Accredited Entities or Executing Entities to deliver
- Role of National Designated Authority
- Engagement with civil society organizations and other relevant stakeholders, including indigenous peoples, women and other vulnerable groups

296. Kenya demonstrates strong ownership and commitment to the CST facility Programme, ensuring alignment with Nationally Determined Contributions (NDCs), Nationally Appropriate Mitigation Actions (NAMAs), National Adaptation Plans (NAPs), national climate strategies, financial sector initiatives, and global climate commitments. The program is designed to support climate-resilient agriculture, sustainable energy access, and MSME financing, directly contributing to Kenya's Vision 2030 and Green Economy Strategy.

297. Kenya's Updated NDC (2020) targets a 32% reduction in GHG emissions by 2030, prioritizing renewable energy, climate-smart agriculture, waste management, and green industrialization. The energy sector aims to expand solar, wind, geothermal, and biogas, reducing reliance on fossil fuels while promoting energy efficiency in industries, clean cooking solutions, and off-grid electrification. Climate-smart agriculture initiatives focus on drought-resistant

²²⁶ [Kenya Economic Update: Transforming Agricultural Productivity to Achieve Food Security for All](#)

²²⁷ [Development Projects: NATIONAL AGRICULTURAL VALUE CHAIN DEVELOPMENT PROJECT \(NAVCDP\) - P176758](#)

²²⁸ <https://www.centralbank.go.ke/2024/09/18/10758/>

²²⁹ [Kenya Vision 2030 \(Popular Version\) | Kenya Vision 2030](#)

²³⁰ [GESIP0310201601.pdf](#)

crops, improved irrigation, agroforestry, and methane reduction in livestock, strengthening food security and rural resilience. The waste sector will promote waste-to-energy solutions, circular economy practices, and landfill methane capture to reduce emissions and enhance urban sustainability.

298. The program objectives align with Kenya's National Adaptation Plan (NAP) (2015-2030), which prioritizes climate-proofing agriculture, promoting climate-resilient infrastructure, and strengthening financial resilience. The NAP supports sustainable agriculture through climate-smart practices, improved irrigation, and drought-resistant crops, helping mitigate climate risks in the sector. Additionally, water resource management, resilient fisheries, and infrastructure upgrades are key NAP priorities, ensuring adaptation to climate-induced shocks.
299. Other strategic national plans reinforce priorities congruent with the CST Facility's objectives (Kenya Vision 2030,²³¹ the Green Economy Strategy and Implementation Plan (GESIP)²³²). Kenya's NAMA framework promotes energy efficiency, biogas expansion, and industrial decarbonization, facilitating the transition to a green economy (Kenya NAMA Registry). The Kenya GCF Country Programme prioritizes climate resilience, sustainable finance, and private sector engagement in climate action (Kenya NDA-GCF Country Programme²³³). The CST facility aligns with these priorities, integrating blended finance mechanisms to mobilize private sector capital for CST adoption. Through digital lending solutions, concessional financing, and risk-sharing mechanisms, the program expands financial inclusion for Kenya's hardest-to-reach MSMEs and farmers, reinforcing the government's climate finance strategy.
300. The CST facility is managed by KCB Bank, a GCF-accredited entity and Executing Entity with extensive expertise in sustainable finance, MSME lending, and climate investments. KCB was selected by the International Finance Corporation (IFC) to scale up green lending in Kenya and has over KES 1.1 trillion in assets, ensuring financial strength for program implementation. KCB's nationwide network enables financial inclusion in rural and underserved areas, and the bank has a strong track record in climate finance, including green loans for renewable energy, agriculture, and energy efficiency (KCB Sustainability Report²³⁴). KCB will collaborate with government ministries, farmer cooperatives, technology providers, and financial regulators to ensure efficient delivery and long-term sustainability.
301. The CST facility promotes equitable and inclusive development, prioritizing vulnerable groups, including hardest-to-reach farmer cooperatives, micro-businesses, indigenous communities, women, and youth entrepreneurs, which is critical for socio-economic progress²³⁵. It actively engages civil society organizations to ensure transparent governance and inclusive decision-making. By fostering multi-stakeholder participation, the program ensures climate finance reaches the most vulnerable communities, promoting socio-economic resilience and sustainable development.
302. As a cornerstone of Kenya's climate finance strategy, the CST facility ensures locally owned, inclusive, and impactful climate action. By leveraging GCF support, Kenya's national policies, and strong institutional capacity, the program drives long-term sustainability and transformational change for Kenya's MSMEs and farmers.

D.6. Efficiency and effectiveness (max` . 500 words, approximately 1 page)

Describe how the financial structure is adequate and reasonable in order to achieve the proposal's objectives, including addressing existing bottlenecks and/or barriers, and providing the minimum concessionality to ensure the project is viable without crowding out private and other public investments. Refer to section B.5 on the justification of GCF funding requested as necessary.

Please describe the efficiency and effectiveness of the proposed project/programme, taking into account the total financing and mitigation/ adaptation outcome the project/programme aims to achieve, and explain how this compares to an appropriate benchmark.

Please specify the expected economic rate of return based on a comparison of the scenarios with and without the project/programme.

Please specify the expected financial rate of return with and without the Fund's support to illustrate the need for GCF funding to illustrate overall cost effectiveness.

Please explain how best available technologies and practices have been considered and applied. If applicable, specify the innovations/modifications/adjustments that are made based on industry best practices.

²³¹ [About Vision 2030 | Kenya Vision 2030](#)

²³² The Green Economy Strategy and Implementation Plan (GESIP)

²³³ [Kenya National GCF STRATEGY | United Nations Development Programme](#)

²³⁴ [Sustainability](#)

²³⁵ [Supporting Critical Reforms for Inclusive Growth: Kenya Development Policy Financing](#)

303. The financial structure of the proposed Programme ensures it is robust and well-balanced to effectively achieve its objectives while addressing key barriers. The GCF is requested to provide a \$15M concessional loan for the blended finance CST Facility, which will be combined with a \$50M senior loan from KCB for on-lending to farmers and MSMEs. Additionally, the GCF will provide a \$20.3M guarantee to improve access to the CST Facility loans for the most vulnerable farmers and MSMEs, facilitating the adoption of CSTs. The Programme's technical assistance for enabling the environment will be supported by a GCF grant and KCB's in-kind contribution amounting to \$8.332M and \$3.263M, respectively.
304. The financial structure ensures that the Programme does not crowd out existing financial flows, but rather complements and catalyzes additional investments in climate-resilient agricultural practices. The Programme is specifically designed to serve underserved, hardest-to-reach farmers and MSMEs who face barriers preventing private sector engagement without GCF-backed technical assistance and financial support.
305. The proposed Programme demonstrates high efficiency and effectiveness in achieving its climate and economic objectives, considering both the total financing required and the anticipated mitigation and adaptation outcomes. Based on the allocation of GCF resources - 48% toward mitigation and 52% toward adaptation - the cost of climate impact is calculated at approximately USD 5.33 per tonne of CO₂ reduced (48% of GCF total funding / 3,928,727 tCO₂e) and USD 24.25 per beneficiary (52% of GCF total funding / 935,692 total beneficiaries). By addressing systemic barriers including technical assistance that have historically excluded these segments from commercial lending, the Programme ensures that climate-smart technologies become accessible to those most in need of resilience-building support. The financing structure reflects a mobilization ratio of 1:1.22, meaning that the USD 43.643M GCF contribution is expected to leverage USD 53.263 million in co-financing from KCB, in addition to equity inputs from farmers and MSMEs, which are not included in this estimate.
306. The GCF intervention substantially improves access to finance for micro-businesses, farmers, and SMEs by reducing prohibitively high commercial interest rates. These improvements directly address liquidity constraints, reduce repayment pressure, and align repayment schedules with the economic life and payback periods of CSTs. As a result, MSMEs and farmers in climate-vulnerable counties gain access to affordable, longer-term financing that enables CST adoption that would otherwise remain out of reach.
307. Overall, the GCF loan and guarantee structure enhances affordability, extends loan maturity, and enables inclusive access to climate finance - unlocking systemic change and aligning with GCF priorities on adaptation, gender equity, and financial inclusion.
308. The expected economic rate of return for the Programme, when comparing scenarios with and without GCF support, underscores its financial viability and socio-economic benefits. By integrating CSTs and enhancing resilience against climate risks, the Programme is expected to increase agricultural productivity, reduce vulnerability to climate impacts, and improve livelihoods for local communities.
309. The financial rate of return highlights that the Programme is viable only with GCF intervention, as the reduction in collateral requirements for CST borrowers may lead to a higher risk of default. In such cases, the GCF guarantee will play a crucial role in covering potential loan losses, ensuring the facility remains financially sustainable while expanding access to concessional financing for vulnerable MSMEs and farmers.
310. The Programme supports the enhancement of the Climate Assessment for Financial Institutions (CAFI) tool within KCB to ensure effective impact assessment of adopted CSTs in climate-resilient agriculture, water and waste management, and energy solutions. The Programme leverages industry best practices and technological innovations to strengthen climate resilience in Kenya's financial sector. Furthermore, the Programme will expand KCB's digital on-lending solutions, ensuring that hardest-to-reach MSMEs and farmers gain access to financing and climate impact monitoring.

E. LOGICAL FRAMEWORK

This section refers to the project/programme's logical framework in accordance with the **GCF's Integrated Results Management Framework** to which the project/programme contributes as a whole, including in respect of any co-financing.

E.1. Project/Programme Focus

Please indicate whether this proposal is for a mitigation or adaptation project/programme. For cross-cutting proposals, select both.

- Reduced emissions (mitigation)
- Increased resilience (adaptation)

E.2. GCF Impact level: Paradigm shift potential (max 600 words, approximately 1-2 pages)

This section of the logical framework is meant to help a project/programme monitor and assess how it contributes to the paradigm shift described in section D.2 above by applying three assessment dimensions - scale, replicability, and sustainability.

Accordingly, for each assessment dimension (see the definition per assessment in the accompanying guidance note), describe the current state (baseline) and the potential scenario (target) and rate the current state (baseline) by using the three-point-scale rating (low, medium, and high) provided in the guidance note. Also describe how the project/programme will contribute to that shift/ transformation under respective assessment dimensions (scale, replicability and sustainability). In doing so, please refer to section B.2(a) (theory of change).

Assessment Dimension	Current state (baseline)		Potential target scenario (Description)	How the project/programme will contribute (Description)
	Description	Rating		
Scale	Kenya's MSMEs face significant barriers in accessing affordable financing for Climate and Environmental Sound Technologies (CST), resulting in limited adoption and low penetration of these solutions across key sectors. The absence of dedicated financial instruments and technical support restricts investment in CST, leading to minimal quantifiable impacts on emission	<u>Low</u>	The Programme seeks to catalyze a measurable increase in CST adoption by MSMEs, driving significant and scalable climate benefits within and beyond the program's scope. By deploying affordable, tailored financing and integrating climate risk considerations into lending practices, the program will facilitate widespread investments in low-emission and climate-resilient technologies. The enhanced availability of green finance will stimulate market demand, encouraging financial institutions to scale up climate-friendly lending even beyond the program. Additionally, by creating demonstration effects, the Programme aims to generate scalable models for CST financing,	<i>Describe key applicable outputs and or resulting outcomes relevant to increasing (scaling up) quantifiable results within and beyond the scope of the intervention.</i> The Programme will facilitate transformational change by increasing the adoption of CSTs among hardest-to-reach MSMEs and farmers through a dedicated Climate Smart Credit Line (CST) facility with concessional terms for the beneficiaries to promote adoption of CSTs, and by capacity building, strengthened market linkages, improving conducive environment. By addressing systemic financial barriers and integrating climate impact tracking tools such as the CAFI tool in Kenya financial sector and GHG tracking systems, the Programme will enable MSMEs to scale up investments in low-carbon, climate-resilient technologies,

	<p>reductions, resource efficiency, and climate resilience. Additionally, financial institutions have yet to integrate climate-focused lending at scale, limiting the potential for transformative impacts beyond isolated pilot initiatives. As a result, progress toward Kenya's climate goals remains slow, with limited measurable contributions to national mitigation and adaptation targets.</p>		<p>resulting in long-term, quantifiable improvements in emissions reductions, climate resilience, and green job creation across Kenya's economy.</p>	<p>contributing to mitigation and adaptation goals of the Country. The intervention will also strengthen financial institutions' climate-responsive lending mechanisms, fostering replication and crowding in additional climate finance beyond the immediate scope of the Programme.</p> <p>At the paradigm-shifting level, the Programme will enhance Kenya's green financial ecosystem by embedding climate risk assessment frameworks, strengthening institutional capacity for CST loans origination, and fostering multi-stakeholder collaboration to scale CSTs adoption. Through mainstreaming climate finance, integrating Digital Lending Solutions (DLS), and deploying risk mitigation mechanisms, the Programme will generate scalable models for CST financing, enabling sustained market transformation. The capacity-building components will empower the most vulnerable, hardest-to-reach MSMEs, farmers, and financial institutions to integrate climate resilient and low emission considerations into investment decisions, delivering quantifiable, long-term impacts on GHG emissions reductions, climate resilience, and economic sustainability, advancing Kenya's low-carbon development pathway.</p>
<p>Replicability</p>	<p>Currently, Kenya's financial sector has limited experience in scaling and replicating green financing mechanisms, particularly for micro, small, and medium enterprises (MSMEs) adopting Climate and Environmental Sound Technologies (CST). Existing green finance initiatives are small-scale, fragmented, and largely</p>	<p><u>Low</u></p>	<p>The Programme seeks to establish a replicable financing model that can be adopted by other financial institutions, regions, and even neighbouring countries. By developing standardized financial products, risk assessment tools, and capacity-building frameworks for green lending, the Programme will create a blueprint for integrating climate finance into mainstream banking. Additionally, partnerships with policymakers, industry associations, and regional networks will promote knowledge-sharing and institutional capacity building for CST loans, enabling the</p>	<p><i>Describe key applicable outputs and resulting outcomes that will be replicated to other sectors, markets, geographical regions, or countries.</i></p> <p>The Programme is designed to ensure replication of the outputs across sectors, markets, and regions, driving climate-smart finance beyond the immediate intervention in Kenya beyond this project:</p> <ol style="list-style-type: none"> 1. CST – a dedicated financing mechanism offering concessional lending for MSMEs adopting CSTs. This financial model can be expanded to other sectors, such as renewable energy, sustainable agriculture, energy efficiency in manufacturing, and replicated

	<p>donor-driven, lacking structured pathways for replication across regions, sectors, or financial institutions. Additionally, there is minimal institutional capacity building, and knowledge-sharing to facilitate the export of successful models. As a result, green lending remains isolated, with few opportunities for scaling beyond pilot projects or specific financial institutions.</p>		<p>expansion of green credit lines to new sectors such as renewable energy, sustainable agriculture, and circular economy initiatives. Over time, this structured approach will facilitate the replication of Kenya's green finance model in other African countries, accelerating climate-smart investments at scale.</p>	<p>across financial institutions in Kenya to mainstream climate-responsive lending.</p> <p>2. Risk Mitigation Mechanism (RMM) – A blended finance structure utilizing guarantees and de-risking strategies to enhance CST investments. This mechanism provides a scalable approach for financial institutions to expand green credit offerings while managing lending risks to high profile borrowers in high-impact sectors and vulnerable markets.</p> <p>3. Climate Impact and Risk Assessment Framework (CIRAF) – a standardized tool customized for CSTs enabling financial institutions to assess climate impact and risks systematically. Its replication will support evidence-based lending and improve the integration of climate considerations in financial decision-making across regional banking sectors.</p> <p>4. Digital Lending Solutions (DLS) – a fintech-driven approach that enhances access to green finance through digital channels for hardest-to-reach borrowers. These solutions can be replicated in mobile banking networks and adapted for remote and underserved areas or sectors, scaling green credit accessibility across multiple geographies.</p> <p>The Programme aims for:</p> <ul style="list-style-type: none"> - Expansion of CST financing beyond pilot initiatives, fostering institutional adoption across financial ecosystems. - Mainstreaming climate finance across regional and national banking systems, strengthening institutional capacity and financial sector readiness for CSTs investments. - Long-term transformation of hardest-to-reach MSME and farmers financing, improving financial inclusion and access to low-emission, climate-resilient solutions supporting NDC goals.
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				<p>By embedding structured replication pathways, the Programme will create a transferable model for climate finance integration, ensuring scalable climate impact beyond this project in Kenya.</p>
<p>Sustainability</p>	<p>Currently, the financial and structural mechanisms necessary to sustain Climate Smart Technologies (CST) adoption by micro, small, and medium enterprises (MSMEs) in Kenya are weak or non-existent. Green financing remains largely donor-dependent, with limited long-term financial instruments available for MSMEs. Additionally, there is insufficient institutional capacity to mainstream CST financing within financial institutions, and climate-resilient business practices are not widely embedded in MSME operations. Without a structured approach to financial sustainability, CST adoption risks stagnation once external funding ends, limiting long-term climate resilience and low-emission development.</p>	<p><u>Low</u></p>	<p>The Programme aims to establish a sustainable financial and institutional foundation to ensure long-term CST adoption beyond the program's completion. By integrating green lending products into financial institutions' core portfolios, strengthening MSMEs' capacity to implement climate-resilient business models, and embedding CST financing within national policies and regulatory frameworks, the Programme will create self-sustaining market dynamics. These structural and financial mechanisms will enable continued scaling of green investments, reinforcing climate resilience and Kenya's transition toward a low-emission economy well beyond the program's lifespan.</p>	<p><i>Describe key applicable outputs and resulting outcomes that will be sustained beyond the project/programme period.</i></p> <p>The Programme establishes dedicated CST to enable long-term financial inclusion for MSMEs and farmers adopting CSTs. By integrating climate risk assessments into lending operations, financial institutions will be equipped with systematic risk evaluation tools, ensuring CST financing remains institutionalized beyond the Programme's duration.</p> <p>Additionally, the Programme develops climate-smart credit products and implements climate-smart credit risk scoring frameworks, enabling financial institutions to scale tailored green financing solutions. These mechanisms will mainstream climate-responsive lending, ensuring continued CST adoption while fostering low-carbon economic growth.</p> <p>The Programme also focuses on capacity-building for MSMEs and financial institutions, providing structured training on CST investment, climate resilience strategies, and financial literacy. This knowledge-sharing approach will ensure stakeholders independently sustain climate-smart business practices, reinforcing long-term CST integration.</p> <p>Furthermore, digital lending platforms and climate information dissemination systems will ensure continued knowledge transfer, enabling MSMEs and financial institutions to access climate finance resources and best practices well beyond the Programme's timeframe.</p> <p>Through institutional capacity building and partnerships, the Programme establishes a</p>

				scalable and self-sustaining climate finance ecosystem, advancing Kenya's low-emission and climate-resilient development pathway over the long term.
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E.3. GCF Outcome level: Reduced emissions and increased resilience (IRMF core indicators 1-4, quantitative indicators)

Select appropriate IRMF core and supplementary indicators to monitor project/programme progress. More than one IRMF (core and or supplementary) indicators may be selected as applicable for each GCF results area and project/programme outcome (as defined in the table in section B.2(b)). If IRMF indicators are unable to measure any given project/programme outcomes, project/programme-specific indicators should be developed under section E.5 (project/programme specific indicators).

GCF Result Area	IRMF Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions / Note
				Mid-term	Final ²³⁶	
<u>All mitigation result areas (Core 1 indicator)</u>	<u>Core 1: GHG emissions reduced, avoided or removed/sequestered</u>	GHG ex-post surveys at mid & end term; loan disbursement records; site inspections; meter readings. Additional verification is conducted during the mid-year and final evaluations.	0	0.376 MtCO _{2e}	Y5: 1.194 MtCO _{2e} Y10: 3.929 MtCO _{2e}	Avoided, reduced or removed/sequestered GHG emissions from CSTs over the Programme lifetime. See Annex 22 for detailed calculation and methodological approach.
<u>MRA1 Energy generation and access</u>	<u>Core 1: GHG emissions reduced, avoided or removed/sequestered</u>	Loan disbursement records; site inspections; meter readings. Additional verification is conducted during the mid-year and final evaluations.	0	24,765 tCO _{2e}	Y5: 72,056 tCO _{2e} Y10: 186,252 tCO _{2e}	Based on computations for Solar-powered appliances and Solar for Cooperatives working in food security. See Annex 22 for detailed calculation and methodological approach.

²³⁶ The final target means the target at the end of project/programme implementation period. However, for core indicator 1 (GHG emission reduction), please also provide the target value at the end of the total lifespan period which is defined as the maximum number of years over which the impacts of the investment are expected to be effective.

<p><u>MRA1 Energy generation and access</u></p>	<p><u>Supplementary 1.4: Renewable energy generated</u></p>	<p>Loan disbursement records; site inspections; meter readings. Additional verification is conducted during the mid-year and final evaluations.</p>	<p>0</p>	<p>77,075 MWh</p>	<p>Y5: 224,252 MWh Y10: 579,654 MWh</p>	<p>Based on energy generation from Solar-powered appliances and Solar for Cooperatives working in food security. See Annex 22 for detailed calculation and methodological approach.</p>
<p><u>MRA3 Buildings, cities, industries and appliances</u></p>	<p><u>Core 1: GHG emissions reduced, avoided or removed/sequestered</u></p>	<p>GHG ex-post surveys at mid & end term; Loan disbursement records; site inspections; meter readings. Additional verification is conducted during the mid-year and final evaluations.</p>	<p>0</p>	<p>0.351 MtCO_{2e}</p>	<p>Y5: 1.122 MtCO_{2e} Y10: 3.742 MtCO_{2e}</p>	<p>Avoided, reduced or removed/sequestered GHG emissions from Bio-composting, Solar cooker for institutions, biodigesters use, boilers using biomass waste, and energy efficiency interventions over the Programme lifetime. See Annex 22 for detailed calculation and methodological approach.</p>
<p><u>MRA3 Buildings, cities, industries and appliances</u></p>	<p><u>Supplementary 1.1: Annual energy savings</u></p>	<p>GHG ex-post surveys at mid & end term; Loan disbursement records; site inspections; meter readings. Additional verification is conducted during the mid-year and final evaluations.</p>	<p>0</p>	<p>472,227 MWh</p>	<p>Y5: 1,374,294 MWh Y10: 3,553,340 MWh</p>	<p>Computations based on energy (wood and/or grid electricity) from Solar cooker for institutions, biodigesters use, boilers using biomass waste, and energy efficiency interventions. See Annex 22 for detailed calculation and methodological approach.</p>
<p><u>All adaptation result areas (Core 2 indicator)</u></p>	<p><u>Core 2: Direct and indirect beneficiaries reached</u></p>	<p>Beneficiary impact surveys at mid & end term; Loan disbursement records</p>	<p>0</p>	<p>13,467 direct beneficiaries incl. 4,229 women 98,898 indirect beneficiaries incl. 31,054 women</p>	<p>By Y5 53,291 direct beneficiaries incl. 16,733 women 391,347 indirect beneficiaries incl. 122,883 women</p>	<p>At least 30% of both direct and indirect beneficiaries are female. See Annex 24b for detailed calculations</p>

					<p>By Y10</p> <p>112,145 direct beneficiaries incl. 35,214 women</p> <p>823,547 indirect beneficiaries incl. 258,594 women</p>	
<p><u>ARA2 Health, well-being, food and water security</u></p>	<p><u>Core 2: Direct and indirect beneficiaries reached</u></p>	<p>Beneficiary impact surveys at mid & end term; Loan disbursement records</p>	0	<p>13,467 direct beneficiaries incl. 4,229 women</p> <p>98,898 indirect beneficiaries incl. 31,054 women</p>	<p>By Y5</p> <p>53,291 direct beneficiaries incl. 16,733 women</p> <p>391,347 indirect beneficiaries incl. 122,883 women</p> <p>By Y10</p> <p>112,145 direct beneficiaries incl. 35,214 women</p> <p>823,547 indirect beneficiaries incl. 258,594 women</p>	<p>At least 30% of both direct and indirect beneficiaries are female. See Annex 24b for detailed calculations</p>
<p><u>ARA2 Health, well-being, food and water security</u></p>	<p><u>Supplementary 2.2: Beneficiaries (female/male) with improved food security</u></p>	<p>Beneficiary impact surveys at mid & end term; Loan disbursement records</p>	0	<p>11,717 direct beneficiaries</p> <p>86,042 indirect beneficiaries</p>	<p>By Y5</p> <p>46,363 direct beneficiaries</p> <p>340,472 indirect beneficiaries</p> <p>By Y10</p> <p>97,567 direct beneficiaries</p> <p>716,486 indirect beneficiaries</p>	<p>At least 30% of both direct and indirect beneficiaries are female. See Annex 24b for detailed calculations</p>

<p><u>ARA2 Health, well-being, food and water security</u></p>	<p><u>Supplementary 2.3: Beneficiaries (female/male) with more climate-resilient water security</u></p>	<p>Beneficiary impact surveys at mid & end term; Loan disbursement records</p>	<p>0</p>	<p>3,105 direct beneficiaries 17,638 indirect beneficiaries</p>	<p>By Y5 12,438 direct beneficiaries 70,891 indirect beneficiaries By Y10 26,186 direct beneficiaries 149,291 indirect beneficiaries</p>	<p>At least 30% of both direct and indirect beneficiaries are female. See Annex 24b for detailed calculations</p>
<p><u>ARA2 Health, well-being, food and water security</u></p>	<p><u>Core 4: Hectares of natural resources brought under improved low-emission and/or climate-resilient management practice</u></p>	<p>Beneficiary impact surveys at mid & end term; field visits; satellite image analysis; Loan disbursement records</p>	<p>0</p>	<p>7820 ha</p>	<p>Y5: 32,568 ha Y10: 66,263 ha</p>	<p>Assumption: A sufficient number of relevant sub-projects that meet the Programme's investment criteria are identified, approved and funded</p>
<p><u>ARA2 Health, well-being, food and water security</u></p>	<p><u>Supplementary 4.2: Number of livestock brought under sustainable management practices</u></p>	<p>Farmer's survey at mid & end term;</p>	<p>0</p>	<p>14,199 LSU</p>	<p>Y5: 56,188 LSU Y10: 118,242 LSU</p>	<p>The estimation of cattle, goats and sheep is derived based on national statistic measures. (See Annex 24b for detailed calculations)</p>
<p><u>ARA2 Health, well-being, food and water security</u></p>	<p><u>Supplementary 4.3: Tonnes of fish stock brought under sustainable management practice</u></p>	<p>Farmer's survey at mid & end term;</p>	<p>0</p>	<p>1,421 tons</p>	<p>Y5: 2,844 tons Y10: 11,375 tons</p>	<p>Assumption: Farmers will see an improvement in their fish yields which will strengthen their food security.</p>

E.4. GCF Outcome level: Enabling environment (IRMF core indicators 5-8 as applicable)

Select at least two relevant IRMF core (enabling environment) indicators to monitor and elaborate the baseline context and project/programme's targeted outcome against the respective indicators. Rate the current state (baseline) vis-à-vis the target scenario and select the geographical scope of the outcome to be assessed. Describe how the project/programme will contribute towards the target scenario. Refer to a case example in the accompanying guidance to complete this section.

Core Indicator	Baseline context (description)	Rating for current state (baseline)	Target scenario (description)	How the project will contribute	Coverage
<p><u>Core Indicator 5: Degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low emission climate-resilient development pathways in a country-driven manner</u></p>	<p>Kenya's institutional and regulatory frameworks for low-emission, climate-resilient development remain fragmented, with limited integration of climate considerations into financial sector policies. MSMEs, which are key drivers of economic activity, face significant barriers in accessing finance for Climate and Environmental Sound Technologies (CST) due to the absence of targeted regulatory incentives, inadequate climate risk assessment frameworks, and weak coordination among policymakers, financial institutions, and private sector actors. Without a structured approach to green finance, existing financial products remain misaligned with national climate goals, slowing the mainstreaming of CST and hindering Kenya's transition to a low-emission, climate-resilient economy</p>	<p><u>low</u></p>	<p>The GCF investment will catalyze systemic reforms by strengthening Kenya's institutional and regulatory frameworks to support green finance in a country-driven manner. The program will facilitate the integration of climate-related financial risk assessments into banking regulations, enhance institutional capacity and partnerships between financial and environmental sectors, and establish incentive mechanisms that encourage MSME and farmers investments in CST. By fostering coordination among regulatory bodies, financial institutions, and private sector stakeholders, the initiative will create an enabling environment for sustained climate finance, aligning Kenya's financial ecosystem with its long-term climate resilience and low-emission development goals</p>	<p>The Programme will establish institutional and regulatory mechanisms that systematically mainstream climate-responsive finance within Kenya's financial sector. CST facility Programme will</p> <ul style="list-style-type: none"> - Integrate climate-related financial risk assessments into Kenya's banking regulations, ensuring financial institutions embed CST considerations into lending decisions. - Enhance institutional capacity on CST loans origination and climate risk assessment and partnership between FIs and CST providers aligning green finance mechanisms with Kenya's long-term climate mitigation and adaptation strategies. - Develop targeted incentive mechanisms that encourage MSMEs and farmers to invest in CST by improving access to concessional financing. - Strengthen coordination among regulatory bodies, financial institutions, and private sector stakeholders to create an enabling 	<p><u>National level (one country)</u></p>

				<p>environment for sustained green finance scaling.</p> <ul style="list-style-type: none"> - Institutionalize the CST Facility within KCB, providing long-term access to concessional green lending beyond donor funding cycles. - Support capacity-building for financial institutions, equipping them with the tools and methodologies needed to assess, structure, and finance CST investments effectively. <p>By embedding climate-smart financial policies, the Programme will accelerate Kenya's transition to a low-emission, climate-resilient economy through structured regulatory alignment and financial sector transformation</p>	
<p><u>Core Indicator 6: Degree to which GCF investments contribute to technology deployment, dissemination, development or transfer and innovation</u></p>	<p>In Kenya, the deployment and adoption of Climate and Environmental Sound Technologies (CST) by micro, small, and medium enterprises (MSMEs) remain constrained by financial barriers, limited awareness, and weak technical support systems. Existing credit facilities do not adequately cater to the specific needs of CST investments, as high interest rates, strict</p>	<p><u>low</u></p>	<p>The GCF investment will catalyze the deployment, dissemination, and scaling of CST by providing MSMEs and farmers with affordable, customized financing solutions. By partnering with financial institutions and technology providers, the program will facilitate knowledge transfer, increase market penetration of proven CST solutions, and incentivize innovation in climate-smart</p>	<p>The Programme will accelerate the scaling and adoption of CSTs by addressing critical barriers and creating an enabling environment for technology integration:</p> <ul style="list-style-type: none"> - Deploy concessional financial solutions through the CST facility credit product for the most vulnerable, ensuring MSMEs and farmers can access affordable financing 	<p><u>National level (one country)</u></p>

	<p>collateral requirements, and a lack of tailored financial products discourage uptake. Additionally, there are gaps in technology dissemination, capacity building, and linkages between financial institutions, technology providers, and end-users, slowing the transfer and scaling of innovative low-emission, climate-resilient solutions. Without targeted interventions, the market for CST remains underdeveloped, limiting Kenya's ability to meet its climate adaptation and mitigation goals.</p>		<p>technologies. Additionally, it will strengthen the enabling environment by technical assistance, and capacity-building initiatives that enhance the adoption of low-emission technologies. Over time, this will accelerate Kenya's transition to a climate-resilient economy by mainstreaming CST within key sectors and fostering a more dynamic, technology-driven green finance ecosystem.</p>	<p>tailored to CST investments.</p> <ul style="list-style-type: none"> - Strengthen partnerships between financial institutions, technology providers, and market actors to facilitate technology transfer, dissemination, and commercialization of low-emission, climate-resilient solutions. - Enhance capacity-building efforts, equipping MSMEs and financial institutions with the technical expertise required to evaluate, adopt, and implement CSTs. - Institutionalize climate-smart lending practices by integrating climate considerations into financial risk assessments and investment frameworks, enabling financial institutions to scale CST financing beyond the Programme's scope. - Embed DLS to improve access to CST financing, ensuring technology-driven green finance ecosystems emerge across Kenya's banking sector. <p>By establishing systemic mechanisms for CST deployment, the</p>	
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				<p>Programme will drive technology integration across key sectors, accelerating Kenya's transition to a low-emission, climate-resilient economy.</p>	
<p><u>Core indicator 8: Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good practices, methodologies and standards</u></p>	<p>Kenya's financial and MSME sectors currently lack structured mechanisms for generating, disseminating, and applying knowledge on Climate and Environmental Sound Technologies (CST) and green financing models. There is limited awareness among financial institutions, policymakers, and MSMEs regarding best practices, methodologies, and standards for evaluating and financing CST investments. Additionally, the absence of standardized MRV (Measurement, Reporting, and Verification) frameworks for tracking climate and financial impacts hinders data-driven decision-making. Without dedicated efforts to bridge these knowledge gaps, CST adoption remains slow, and the financial sector continues to underprioritize climate considerations.</p>	<p><u>low</u></p>	<p>The GCF investment will enhance knowledge generation and learning by embedding structured capacity-building programs, developing standardized methodologies for assessing CST investments, and fostering the exchange of good practices among financial institutions, MSMEs, farmers, and policymakers. The program will establish robust MRV systems to track financial flows and climate impacts, ensuring evidence-based decision-making and continuous learning. By integrating climate risk considerations into financial sector policies, the program will drive long-term improvements in green financing practices, enabling a sustained shift towards a low-emission, climate-resilient economy in Kenya</p>	<p>The Programme will embed structured learning processes to enhance MSMEs' and farmers' capacity to adopt CSTs while institutionalizing climate-responsive financial mechanisms. The CST facility Programme will:</p> <ul style="list-style-type: none"> - Develop and mainstream capacity-building initiatives tailored to MSMEs and farmers, equipping them with technical knowledge on CSTs, financial literacy for concessional green financing, and best practices for climate adaptation. - Strengthen MRV (Measurement, Reporting, and Verification) systems to track the financial and climate impacts of CST adoption, enabling data-driven decision-making and performance benchmarking for financial institutions and MSMEs. - Facilitate structured knowledge exchange among financial 	<p><u>National level (one country)</u></p>

				<p>institutions, policymakers, technology providers, and MSMEs to promote good practices, methodologies, and standards for CST financing and deployment.</p> <ul style="list-style-type: none"> - Institutionalize climate risk assessment frameworks across Kenya's financial sector to ensure MSMEs and farmers are supported through climate-smart lending models, reinforcing scalable and evidence-based CST financing practices. - Promote peer learning and technical assistance through digital extension services, ensuring MSMEs and farmers continuously access climate finance resources, CST investment strategies, and adaptive solutions beyond the Programme's duration. <p>By embedding systemic knowledge generation mechanisms, the Programme will ensure MSMEs, and farmers develop long-term resilience, securing sustained CST adoption and mainstreaming climate finance into Kenya's financial ecosystem beyond the initial intervention.</p>	
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E.5. Project/programme specific indicators (project outcomes and outputs)

This section should list out project/programme-specific performance indicators (outcomes and outputs) that are not covered in sections above (E.1-E.4). List down tailored indicators to monitor /track progress against relevant project/programme results (outcomes/outputs). AEs have the freedom to decide against which outcomes they would like to set project/programme specific indicators. If any co-benefits are identified in sections B.2(a)(b), and D.3, AEs are encouraged to add and monitor co-benefit indicators under the “Project/programme co-benefit indicators” section in table below. Add rows as needed.

Please number each outcome and output as shown below to indicate association of outputs to the contributing outcome. The numbering for outputs under this section should correspond to the output numbering in annex 4 (detailed budget plan).

Project/programme results (outcomes/ outputs)	Project/programme specific Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions / Note
				Mid-term	Final	
Outcome 1: Increased climate resilience, food security and water security among targeted hardest-to-reach MSMEs and smallholders in priority counties						
Outcome 2: Reduced lifetime GHG emissions from targeted MSMEs and agricultural activities through adoption of renewable energy and energy-efficient CSTs.						
1.1 A CST Facility is established and operationalized by KCB for inclusive on-lending to hardest-to-reach farmers, MSMEs, and households.	<i>Volume of financing approved and disbursed from CST Facility</i>	Programme reports (Loans disbursement records)	0	USD 13M	65M by Y5 200M by Y10	1.1 Based on CST Financial Model, recycling of principal & interest into CST Facility loans to MSMEs and farmers throughout the implementation period.
	<i>Number of loans disbursed</i>	Programme reports (Loan disbursement records)	0	10,000	30,000 by Y5 90,000 by Y10	
1.2 Risk mitigation mechanism (RMM) for CST Facility is deployed.	<i>Amount of financed guarantee available for CST facility</i>	Programme reports (Loan disbursement records)	0	USD 8M	USD 20.3M	
	<i>Value of guaranteed loans</i>	Programme reports (Loan disbursement records)	0	USD 9M	USD 44M	
Outcome 3: Strengthened institutional and financial systems that enable sustainable market transformation.						
2.1 Climate Impact and Risk Assessment Framework (CIRAF) is strengthened in KCB and	<i>Number of CST-specific indicators integrated into the KCB CAFI tool</i>	Document review (CIRAF and CAFI Tool Reports)	0	2	13	The CAFI tool replicates indicators from E.3 with gradual implementation: GHG emission reduced and avoided + number of

promoted across Kenya's banking sector.						beneficiaries by mid-term. At least eight indicators to support Programme performance: 1.Direct and indirect beneficiaries reached disaggregated by gender, youth, and PWD 2. GHG emissions reduced, avoided or removed; 3. Renewable energy generated, 4. Annual energy savings 5. Beneficiaries with improved food security 6. Beneficiaries with more climate-resilient water security 7. Number of livestock under sustainable management 8. Tonnes of fish stock brought under sustainable management
	<i>Number of CST ST with methodology</i>	Document Review	0	1	1	CST Screening Tool will be developed during first 1-2 years and updated by Yr5
	<i>Number of stakeholder workshops conducted</i>	Document review (Bank records; workshop reports)	0	2	4	At least 30% of participants are female
	<i>Number of stakeholders engaged (disaggregated by stakeholder type).</i>	Document review (Workshop reports; Attendance records)	0	50 of which 15 female, 15 youth; of which 10 CST vendors, 10 MSMEs and farmers representatives 10, 30 KCB staff	100 or which 30 female and 30 youth, 20 CST vendors, 20 MSMEs and farmers representatives, 60 KCB staff	Assuming at least 25 pax per hybrid event including CST vendors, MSMEs and farmers, local community representatives, KCB staff

	<i>Number of user guidelines and training modules developed</i>	Document review (Bank records)	0	1	1	This is meant to serve as training material for KCB staff
	<i>Number of KCB staff trained on the use of the CAFI tool</i>	Programme reports (Bank records)	0	30 of which 10 women	60 of which 20 women	At least 30% of participants are female
	<i>Percentage of CST loans assessed using the enhanced CAFI tool.</i>	Programme reports (Loan disbursement records; CAFI Tool reports)	0	1%	10%	The CAFI tool will be updated during implementation % is taken as compared to total loans quantity over 10 years
	<i>Number of loan applications processed through the upgraded digital platform</i>	Programme reports (Loan disbursement records)	0	5%	12%	Only low value loans can be eligible, suggesting 12% from total loans – these are 25% of loans for clean cooking which represent 47% of total loan number (62k out of 131k loans)
	<i>Number of MSMEs onboarded and actively using the platform for climate-smart loan applications.</i>	Programme reports	0	3,100	7,400	5% of total clean cooking loans 62k by midterm and 12 % by year 5
2.2 CSTs are promoted among hardest-to-reach farmers, MSMEs, households, and local authorities through capacity building and improved market linkage.	<i>Number of capacity-building materials designed</i>	Document review	0	2	2	Assumption: Guidelines and modules are co-designed with MSMEs, farmers, and women/ youth groups to ensure usability and uptake
	<i>Number of engagement channels utilized for CST knowledge dissemination.</i>	Programme reports	0	3	3	Assumes targeted beneficiaries have access to and actively use the identified engagement channels (digital platforms, radio, community meetings, extension services)
	<i>Number of training sessions conducted</i>	Document review (Bank records; workshop reports)	0	5	10	At least 30% of participants are female

	<i>Number of participants trained, disaggregated by gender, age, and target group</i>	Document review (Workshop reports; Attendance records)	0	240	600	Six regional hybrid training courses per year with at least 20 pax per event according to the budget
	<i>Number of partnerships established</i>	Programme reports	0	3	5	Assumption: Relevant public and private stakeholders are willing to collaborate and have the institutional capacity to formalize and sustain partnerships.
	<i>Number of CST vendors identified, vetted and accredited</i>	Programme reports	0	10	20	At least 30% are female
	<i>Number of MSMEs and stakeholders receiving technical and handholding support</i>	Programme reports	0	24	60	2 MSMEs from each capacity building event to be connected for continuous technical support
	<i>Number of vendor training sessions and workshops conducted</i>	Document review (workshop reports)	0	2	4	At least 30% of participants are female
	<i>Number of vendor-stakeholder networking forums organized.</i>	Document review	0	2	4	At least 30% of participants are female
	<i>Number of MOUs with organizations of existing initiatives in Cluster 1 -2</i>	Document review	0	2	4	This includes MOUs with state agencies active in Cluster 1-2
	<i>Implementation Report on increased use of drought, flood, and early-warning systems</i>	Document review	0	1	2	The report will reflect on progress of derisking MSMEs and farmers operations for CSTF by use of early warning systems
3.1 Institutional capacity is strengthened for origination of equitable CST financial products to scale up CST adoption.	<i>No of partnerships entered into</i>	Document review	0	1	1	MoU signed with Kenya Bankers Association (KBA), an umbrella body for financial institutions licensed and regulated by the Central Bank of Kenya (CBK). Its membership includes

						commercial & microfinance banks,
	<i>No. of workshops conducted</i>	Document review (Workshop report; Attendance report)	0	1	3	Workshop report Midterm and final results shared with FIs – at least one regional workshop by year 5
	<i>No of organizations trained</i>	Document review (Workshop report; Attendance records)	0	5	10	Assumption: FIs and financial market players are interested in CST scale up and participate in the workshops
3.2 Knowledge systems and collaboration enhanced for CST uptake and climate impact tracking.	<i>Number of publications on CST Facility, climate impact data collection, and information management</i>	Document review	0	1	2	One publication is produced at midterm and updated by end of implementation on CST Facility and climate impact data to be shared with the market players
	<i>Number of stakeholder consultation workshops conducted.</i>	Document review	0	1	2	Assuming FIs in Kenya are interested in collaborating to scale up CST financing solutions.
Project/Programme co-benefit indicators						
Co-benefit 1 - MSMEs and farmers income is improved, operations expanded	<i>Percentage increase in average annual income of participating farmers and MSMEs</i>	Beneficiary impact surveys at mid & end term; Loan disbursement records	0	10%	20%	Productivity gains (from CSTs) into real income growth is dependent on a stable macroeconomic environment.
	<i>Percentage of MSMEs that have scaled operations (e.g., expanded product lines, increased production capacity)</i>	Beneficiary impact surveys at mid & end term; Loan disbursement records	0	10%	20%	
	<i>Number of new jobs created</i>	Beneficiary impact surveys at mid & end term; Loan disbursement records	0	47,697	Y5: 188,740 Y10: 397,182	See Annex 24

Co-benefit 2 — Social empowerment is achieved through improved health outcomes and enhanced access to clean technologies for food production, water access, and biomass management for the hardest-to-reach MSMEs and farmers.	<i>Percentage of beneficiaries with improved access to clean water and clean cooking solutions</i>	Beneficiary impact surveys at mid & end term; Loan disbursement records	0	5%	20%	% driven by funds allocation to water, clean coking and RE
	<i>Percentage of beneficiaries reporting a reduction in health facility visits related to respiratory and water-borne diseases.</i>	Beneficiary impact surveys at mid & end term; Loan disbursement records	0	5%	10%	Assumption: The outcome depends on a behavioral shift - prioritizing the new technology over traditional methods - and on the absence of confounding external factors that could mask the health benefit. Less need for doctor visits for respiratory and other health issues will depend on self-assessment of beneficiaries - % is from total interviewed users
Co-benefit 3 - Women participation is ensured in CSTs adoption through easier access to concessional funding	<i>% of funding going to women entrepreneurs</i>	Loan disbursement records, Workshop reports	0	At least 30% of loan funding and 30% training participants	At least 30% of loan funding and 30% of training participants	At least 3% of CST Lending Facility proceeds finance women led businesses and/or businesses that promote women economic empowerment and gender equality

E.6. Project/programme activities and deliverables

All project activities should be listed here with a description and sub-activities. Significant deliverables should be reflected in annex 5 implementation timetable. Add rows as needed. Please number the activities as shown below to indicate association of activities to the related outputs provided above in section E.5. Similarly, please number sub-activities as shown below to associate to the related activity.

Activities	Description	Sub-activities	Deliverables
1.1.1 Establishing inclusive CST facility by blending \$15M loan from the GCF and \$50M loan from KCB for adoption CSTs by	This activity focuses on setting up and operationalizing the CST for disbursing credit products with concessional terms through KCB branches and online	1.1.1.1 Develop operational framework document and guidelines for the CST facility, including concessional credit products for the hardest-to-reach farmers,	<ul style="list-style-type: none"> 1.1.1.1 One finalized Operational framework document and guidelines for the CST facility with climate impact goals and with M&E framework user friendly (manual style) for internal and

<p>farmers and MSMEs with eligibility criteria covering a broad range of qualified CSTs.</p>	<p>platforms to farmers, MSMEs, and households ensuring effective climate and socio-economic impact, Gender Plan. The activity aims to increase the accessibility of affordable finance, enabling the adoption of CSTs by hardest-to-reach beneficiaries.</p>	<p>MSMEs, and households. (ensure at least 30% women participants). Integrate climate risk screening and impact reporting requirements into the operational framework. Include in the operational framework document “TA Business Continuity Plan” section with scenario-based responses and rapid adaptation checklists. Conduct annual simulation exercises as part of M&E.</p> <p>1.1.1.2 Set up the CST facility within KCB, ensuring readiness to distribute concessional loans through KCB branches and the online platform.</p>	<p>external users highlighting background and CST Facility objectives (and annexed gender and social inclusion provisions) delivered by the end of Year 1 of Programme implementation period.</p> <ul style="list-style-type: none"> 1.1.1.2 One CST Facility Implementation and Operational Readiness Report including readiness checklist setting readiness criteria and gender disaggregated beneficiary baseline data.
<p>Activity 1.1.2 On-lending to farmers, MSMEs, and households with concessional terms.</p>	<p>This activity focuses on implementing the on-lending process through the CST facility. KCB will disburse concessional loans to farmers, MSMEs, and households. Special emphasis will be placed on ensuring effective Gender Plan. The activity includes a rigorous assessment of credit applications based on predefined eligibility criteria, regular tracking of disbursement and repayment performance, and periodic adjustments to the CST terms to align with climate impact goals.</p>	<p>1.1.2.1 KCB assesses credit applications according to eligibility criteria. Carry out detailed technical assessment and credit risk evaluation of potential MSMEs. Selection of MSMEs according to Eligibility Criteria, technical and risk assessment evaluation.</p> <p>1.1.2.2 KCB manages CST facility on-lending and repayment ensuring paying back to GCF according to the term sheet.</p> <p>1.1.2.3 KCB issues an annual facility report on loan disbursement and repayment tracking disaggregated by gender, location, and CST type, CSTs for the GCF.</p> <p>1.1.2.4 Analyze CST facility financial results and climate impact with action plan to refine eligibility criteria to increase climate impact of the CST facility and avoid market disruption, if required every 5 years. Partner with an independent evaluator for baseline, midline, and endline assessments. Feed results into TA and product refinement cycles.</p> <p>1.1.2.5 Conduct annual end-beneficiary focus groups (minimum 50% women/youth</p>	<ul style="list-style-type: none"> 1.1.2.1 - 3 Annual facility report on loan disbursement and repayment tracking disaggregated by gender, /youth, location, and CST type, sector, and end-borrower clusters. 1.1.2.4 Three Analysis reports about credit repayment and climate impact achieved during every 5 years of the CST facility and recommendations will be developed by TA implementation team to adjust facility eligibility criteria, terms and conditions to ensure climate impact and avoid market disruption and reviewed by KCB's Programme manager. 1.1.2.5 Summary of focus group meetings, sharing findings with TA managers

		participation) to gather feedback and refine SCTF eligibility criteria and terms. Establish ongoing digital feedback (e.g., SMS/WhatsApp surveys after loan disbursement) and quarterly community listening sessions.	
Activity 1.1.3 Use improved CIRAF, data for CAFI tool, and GHG tracking systems to measure mitigation outcomes and adaptation results.	This activity focuses on operationalization and use of the enhanced Climate Assessment for Financial Institutions (CAFI) tool, coupled with the implementation of robust GHG tracking systems. These systems will provide quantitative and qualitative data to measure the climate impact of CST-funded projects, particularly in terms of GHG emission reductions and enhanced climate resilience. The activity aims to ensure the tracking framework is tailored to Kenya's unique climatic conditions and the targeted outcomes of the CST adoption initiatives.	<p>1.1.3.1 Integrate a GHG tracking module integrated into the CIRAF and CAFI tool to monitor and verify carbon reductions.</p> <p>1.1.3.2 Conduct annual assessments measuring mitigation outcomes (tCO₂e reductions) and adaptation results (enhanced resilience metrics) achieved by CST-funded projects.</p>	<ul style="list-style-type: none"> • 1.1.3.1 One CIRAF and CAFI tool customized, integrated with GHG tracking systems. • 1.1.3.2 Annual impact assessment reports on GHG emission reductions and climate resilience metrics funded by CST.
Activity 1.2.1 Leverage a \$20.3M guarantee from the GCF to underwrite the CST, reducing insurance costs and enabling broader access to financing.	This activity establishes and operationalizes a \$20.3M guarantee mechanism funded by the GCF to reduce CST credit risk and reduce or waive cost for credit insurance providers - reducing the financial burden of default risks.	<p>1.2.1.1 Draft and finalize agreements with GCF and insurance providers to structure and implement the guarantee mechanism.</p> <p>1.2.1.2 Develop risk-sharing agreements and templates ensuring clear terms for eligibility, repayment, and utilization of the guarantee facility.</p> <p>1.2.1.3 Deliver at least 3 Training sessions for KCB Staff to use CST guarantee.</p> <p>1.2.1.4 Monitor and report performance and adjust CSTF terms and conditions as well as loan underwriting practices as necessary to optimize impact and mitigate risks</p>	<ul style="list-style-type: none"> • 1.2.1.1 One signed agreement with GCF and insurance providers for the guarantee mechanism. • 1.2.1.2 One set of risk-sharing templates for borrowers. • 1.2.1.3 Training materials for KCB staff on use of guarantee for CST. • 1.2.1.4 Quarterly monitoring reports on guarantee performance, including default rates gender/youth breakdown of beneficiaries, risk assessment and adjustments made in CSTF term and conditions as well as loan underwriting practices since latest monitoring period.
Activity 2.1.1 Enhance CIRAF and data for CAFI tool for climate impact and risk assessment for evaluating climate risks and development of CST Screening Tool	CST ST aims to ensure every CST financed under the Programme has location specific climate-rational,	2.1.1.1 Develop and operationalize the CST Screening Tool (CST-ST) and its methodology to guide KCB staff and agents in determining location-appropriate CSTs	<ul style="list-style-type: none"> • 2.1.1.1 CST – ST and methodology • 2.1.1.2 One enhanced CIRAF, methodology of data improvement for

<p>(CST ST) for CST eligibility in KCB operations.</p>	<p>technically viable, environmentally safe, and appropriate for the borrower's local context. This activity focuses on customizing and enhancing the CIRAF tool, data for Climate Assessment for Financial Institutions (CAFI) tool to align with KCB's operational needs and Kenya's climatic and socio-economic context. The goal is to integrate robust climate risk and impact assessment capabilities into KCB's financial operations, enabling informed decision-making for financing CST projects. This enhancement will ensure the CST-linked credit products are both impactful and aligned with GCF's adaptation and mitigation goals.</p>	<p>and ensuring positive climate, social, and environmental impacts</p> <p>2.1.1.2 Adapt the existing KCB CIRAF and data for CAFI tool to CST Facility needs to measure CSTs' climate impact for implementation phase, ensuring alignment with Kenya's unique climatic conditions, risk profiles, and CST eligibility priorities - integrate CST indicators into current KCB CAFI tool for years 1-5 of the projects.</p> <p>2.1.1.3 Conduct hybrid stakeholder workshops with CSTs vendors, farmers cooperatives, MSMEs, CSOs, KCB staff for tool validation of the customized CAFI tool and incorporate feedback into its final version.</p> <p>2.1.1.4 Develop user guidelines and training materials - training modules to facilitate the effective deployment of the CAFI tool in KCB operations.2.1.1.4 Operationalize the final post-implementation version of CAFI tool for CST by Year 5 – KCB will use enhanced version of the CAFI tool in years 1-5 with core CST indicators.</p> <p>2.1.1.6 Develop and implement MSME sectoral adaptation and mitigation benchmarking tools.</p>	<p>CAFI tool customized for CST indicators for years 1-5 of the projects.</p> <ul style="list-style-type: none"> • 2.1.1.3 One stakeholder workshop report documenting the validation process, feedback received. • 2.1.1.4 One set of user guidelines and training materials for KCB staff and agents to ensure consistent and effective use of the CAFI tool. • 2.1.1.5 One pilot test report summarizing the outcomes of the CAFI tool's pilot implementation with recommendations for final improvement. • 2.1.1.6 One final guidelines and training materials for KCB staff and agents on CAFI tool for CST.
<p>Activity 2.1.2 Train KCB personnel and agents to apply climate risk assessment frameworks and CAFI tool for financing decisions, ensuring effective deployment of CST-linked credit lines.</p>	<p>This activity focuses on building the capacity of KCB personnel and agents to effectively utilize the CAFI tool and associated climate risk assessment frameworks. The objective is to ensure informed and consistent financing decisions for CSTs-linked credit lines, aligning with GCF adaptation and mitigation goals. The training will encompass climate risk evaluation, the use of GHG tracking systems, and methods to</p>	<p>2.1.2.1 Undertake needs assessment for KCB Staff.</p> <p>2.1.2.2 Develop training curriculum using guidelines and training materials for CAFI in collaboration with climate and financial experts for the implementation phase. The curriculum will include structured onboarding module and quarterly refresher webinars</p> <p>2.1.2.3 Conduct training sessions for KCB staff and agents in year 1 and year 5</p>	<ul style="list-style-type: none"> • 2.1.2.1-2 One comprehensive training curriculum and set of materials covering the enhanced CAFI tool for implementation phase. • 2.1.2.3 Training reports for at least 50 KCB staff, including session summaries, attendance records, and participant feedback. • 2.1.2.4 At least 10 hybrid capacity-building sessions conducted for KCB personnel and lending officers, with session summaries and participant lists.

	<p>assess climate resilience and mitigation impacts.</p>	<p>focusing on applying the CAFI tool in credit evaluations and monitoring climate impacts. Launch a “TA Champion” award for staff/partners excelling in TA delivery, innovation, or inclusion. Offer small grants for innovation pilots.</p> <p>2.1.2.4 Conduct post-training evaluations to assess participants’ understanding – refine guidelines and training materials for KCB staff and agents on CAFI tool for CST. Link TA training completion and application to HR KPIs and performance reviews. Recognize “super-users” in HR systems.</p> <p>2.1.2.5 Maintain a roster of trained staff and require new hires to complete the “TA Induction Pack.”</p>	
<p>Activity 2.1.3 Digital Lending Solutions (DLS) are integrated for CST in KCB platforms, with real-time climate impact monitoring, compliance tracking, and reporting.</p>	<p>This activity focuses on integrating DLS within KCB platforms to enable seamless credit disbursement under the CST facility for hardest-to-reach borrowers. The activity aims to improve the efficiency of CST operations while enhancing accessibility and user experience for hardest-to-reach farmers, MSMEs, and households. Finally, this activity propels digital solutions for hardest-to-reach beneficiaries by FIs in Kenya.</p>	<p>2.1.3.1 Upgrade KCB digital lending platforms to include features for CST credit products, integrating tools for monitoring climate and sustainability impacts.</p> <p>2.1.3.2 Design intuitive interfaces for end-users and incorporate compliance monitoring mechanisms to track loan performance and ensure alignment with climate goals.</p> <p>2.1.3.3 Pilot the upgraded digital lending platforms with a sample of borrowers to gather feedback, refine features, and ensure the platform meets user needs.</p> <p>2.1.3.4 Organize “Digital Days” at branches/community centers for hands-on digital skills training for MSMEs/farmers. Provide ongoing digital support.</p>	<ul style="list-style-type: none"> • 2.1.3.1 One operational digital lending framework for CST credit products tailored to KCB platforms, integrated with tools for real-time climate impact monitoring and compliance tracking. • 2.1.3.2 One user interface and compliance tracking report summarizing platform updates, key features, and user feedback from testing sessions. • 2.1.3.3 One analysis report on the effectiveness and efficiency of CST adoption through DLS, with recommendations to optimize credit products and ensure enhanced climate impact.
<p>Activity 2.1.4 Identify and develop mechanisms to address credit risk of CSTF portfolio throughout Programme implementation period</p>	<p>The Activity will focus on developing CSTF dedicated sub-loan products which ensures greater repayments under sub-loans, continuously adjusting risk mitigation</p>	<p>2.1.4.1 Undertake CSTF portfolio diagnostics, process and underwriting assessment, external/systemic drivers’ assessment, stakeholder consultations to</p>	<ul style="list-style-type: none"> • 2.1.4.1 CSTF portfolio review report (Integrated in APRs Y2-6) including: <ul style="list-style-type: none"> ○ analysis of portfolio diagnostics (segmentation, NPL analytics, vintage

	<p>mechanisms embed into tailor-made eligibility criteria and CSTF loan terms and conditions.</p>	<p>identify key drivers of NPL in CSTF exposure.</p> <p>2.1.4.2 Evaluate the existing toolbox of KCB's Climate Risk Management and Impact Reporting, along with corresponding credit risk mitigation mechanisms and define if adjustments into pricing, climate risk assessment, and other terms of sub-loan product as needed</p> <p>2.1.4.3 Integrate and implement the proposed adjustments into CSTF Programme Operations Manual, KCB's credit policy and lending guidelines, KCB's core banking channels, and TA capacity building activities.</p>	<p>analysis, repayment behaviour mapping),</p> <ul style="list-style-type: none"> ○ assessment of processes and underwriting (review of current credit policies and scorecards, field level credit process mapping, assessment of monitoring and collection practices), ○ assessment of external drivers (climate shock analysis, market/value chain risk assessment, CST specific performance review, regulatory/institutional constraint) ○ consultations with stakeholders (including 50% participation of women/youth led stakeholders) <ul style="list-style-type: none"> ● 2.1.4.2 Gap analysis, TA implementation results assessment report (Integrated in Mid-term Evaluation report and Completion Evaluation Reports.
<p>Activity 2.2.1 Provide technical assistance to farmers, MSMEs, households, and local authorities to support CST adoption, focusing on the efficiency, cost-benefit, and climate impact benefits of CSTs, promoting youth participation.</p>	<p>This activity provides targeted technical assistance to facilitate the adoption of CSTs by farmers, MSMEs, households, and local authorities in underserved regions. The assistance will tackle the barrier of lack of knowledge and skills for CSTs application, enhance beneficiaries' understanding of the efficiency, cost-benefit analysis, and climate impact of CSTs. Special emphasis will be placed on engaging women and youth groups, fostering inclusive participation in sustainable agricultural and entrepreneurial practices.</p>	<p>2.2.1.1 Design an outreach strategy and capacity-building materials tailored to engage hardest to reach MSMEs, smallholder farmers, households, and local authorities and to ensure inclusivity and effective dissemination of CST knowledge. Training curricula will be co-created with local networks, and delivered in hybrid formats (in-person, digital, mobile).</p> <p>2.2.1.2 Deliver capacity building training sessions focused on CST efficiency, cost-benefit analysis, and practical application in local contexts. Collect participant feedback after each session; use results to refine content and delivery methods</p> <p>2.2.1.3 Collaborate with representatives of hardest-to-reach farmers and MSMEs, incl. CSOs, youth and women protection organizations, farmers cooperatives, and local authorities to strengthen the outreach,</p>	<p>2.2.1.1 One outreach strategy and set of training materials tailored for hardest to reach MSMEs, and smallholder farmers, include engagement plans and capacity-building objectives.</p> <p>2.2.1.2 Signed partnership agreements with at least five hardest to reach CSOs – incl. cooperatives for promoting CSTs adoption.</p> <p>2.2.1.3 At least ten training workshop reports documenting technology selection and highlighting participation (disaggregated by gender and age), and pre-post assessment to measure knowledge gains, and CST adoption plans.</p> <p>2.2.1.4 Retaining CST application training materials and updates for MSMEs and framers at Programme webpage</p>

		<p>disseminate training materials for CSTs' adoption. Organize participatory workshops with these stakeholders to select CSTs that are aligned with the needs of Cluster 1 and 2 end-borrowers. Conduct an annual "training of trainers" workshops and organizational development sessions for local TA partners.</p> <p>2.2.1.4 Conduct a gender/inclusion barrier analysis before designing outreach. Partner with women's/youth organizations for co-designed training and mentorship. Feature success stories in knowledge dissemination.</p>	
<p>Activity 2.2.2 Strengthen market linkages and partnerships to ensure CST supply chains reach underserved regions, addressing logistical barriers, improving affordability.</p>	<p>This activity focuses on building and strengthening market linkages to ensure CSTs are accessible to underserved regions. It addresses market linkage barriers, including tackling logistical barriers, while aiming to enhance supply chain efficiency, and foster partnerships between supply chain players (vendors, cooperatives, community-based organizations, and local authorities), to promote CST adoption at scale.</p>	<p>2.2.2.1 Issue a comprehensive list of vendors in Kenya of potential CST vendors for collaboration under the CST linkage, detailing their product offerings and suitability for scaling adoption. Ensure collaboration with these vendors to integrate them into the KCB program framework for maximum impact.</p> <p>2.2.2.2 Facilitate scaling up collaboration with stakeholders beyond the program for sustainable CST adoption and expansion through consultation with key pertinent stakeholders (vendors, farmers cooperatives, CSOs, etc.). Establish clear engagement channels with CST vendors to ensure their active participation in program activities incl. digital knowledge-sharing platform.</p> <p>2.2.2.3 Establish partnerships with farmers' cooperatives, women and youth groups, farmers' CSOs, research institutions, local authorities, and private sector players. Encourage vendor involvement in these</p>	<p>2.2.2.1 A comprehensive list of KCB vetted CST vendors in Kenya, updated and published annually.</p> <p>2.2.2.2 Engagement channels (online platform launched) with CST vendors-stakeholder engagement incl. digital knowledge-sharing platform, with user analytics and feedback features</p> <p>2.2.2.3 A minimum of 20 letters of interest/MOU from vendors, CSOs, cooperatives of which 30% are women/youth focused and other organizations for promoting CST adoption.</p> <p>2.2.2.4 Collaboration workshop report with documented action plans and follow-up mechanisms.</p> <p>2.2.2.5 A final recommendations report for strengthening market linkages to hardest to reach. Action Plan incorporating vendor engagement strategies.</p> <p>2.2.2.6 Vendor accreditation framework, developed by the end of Y1 of CSTF implementation. Certification of at least</p>

		<p>partnerships to support CST supply chains and knowledge sharing.</p> <p>2.2.2.4 Provide end-to-end technical and handholding support to MSMEs & other stakeholders, and facilitate networking of technology providers. Develop training sessions for supply chain players, farmers cooperatives, and MSMEs; hold knowledge-sharing workshops to build awareness and capacity for CST adoption.</p> <p>2.2.2.5 Organize vendor-stakeholder networking forums at least 2 times a year during CSTF implementation period to enhance collaboration, share insights, and align on scaling CST solutions within the KCB program for recommendations report for strengthening market linkages to hardest to reach and develop action Plan incorporating vendor engagement strategies.</p> <p>2.2.2.6 Develop a vendor accreditation framework to ensure quality assurance and reliable supply of CSTs within the program. with the pilot framework set up by the end of 6 months after the date of the first disbursement of GCF proceeds. Train and certify local technicians (with gender/youth quota); establish regional maintenance hubs.</p> <p>2.2.2.7 Based on the data and analysis of sub-loan CSTF portfolio built, identify mechanisms which could be structured into the T&Cs of underlying CSTF loan products to improve the repayment capacity of the borrower given stronger market linkages and CST supply-chain partnerships-</p>	<p>[50] local technicians (minimum 30% women/youth) in [3] county maintenance hubs</p> <p>2.2.2.7 Annual analysis report, including the evaluation of results of adjustments, if any, of earlier undertaken activities, throughout the CSFT implementation period and until the end of Completion Date.</p> <ul style="list-style-type: none"> 2.2.2.8 Retaining CST market linkage and list of CST technologies, training materials and updates for MSMEs, farmers, and CST supply chain at Programme webpage
<p>Activity 2.2.3. Identify, assess, and integrate existing donor-funded initiatives within Cluster 1 and Cluster 2 into Project implementation.</p>	<p>Activity 2.2.3 strengthens the Programme’s ability to work through existing donor-funded initiatives in Cluster 1 and 2, ensuring that proven approaches and local</p>	<p>2.2.3.1 Identify, assess, and map existing donor-funded initiatives in Cluster 1 and 2 that support CST adoption and the use of</p>	<ul style="list-style-type: none"> 2.2.3.1 Mapping & Assessment Package of existing initiatives to support CST 2.2.3.2 Partnership & Integration Framework

	<p>systems are integrated rather than duplicated. By identifying, assessing, and partnering with these initiatives, the Programme enhances coordination with a view to supporting pipeline development, strengthening community engagement, and reducing systemic climate risks, including through early drought and flood detection and early-warning systems. This integration ensures that MSMEs and farmers benefit from established knowledge, stronger institutional linkages, and more effective climate-risk management tools.</p>	<p>early-warning systems to de-risk MSME and farmer operations.</p> <p>2.2.3.2 Formalize partnerships with relevant organizations—including State Agencies such as KMD and NDMA—to integrate complementary initiatives, strengthen pipeline development, and reduce systemic climate risks through enhanced drought, flood, and early-warning systems.</p> <p>2.2.3.3 Design and deliver a Community Engagement and Capacity-Building Package that incorporates lessons learned from existing initiatives in the target clusters.</p> <p>2.2.3.4 Analyze data and produce Implementation Reports after Year 3 and Year 5 on the uptake of drought, flood, and early-warning systems and their contribution to improved climate resilience.</p>	<ul style="list-style-type: none"> • 2.2.3.3 Community Engagement & Capacity Building Package with Lessons Learned and • 2.2.3.4 Implementation Report on increased use of drought, flood, and early-warning systems
<p>Activity 3.1.1 Collaborate with FIs and market actors to originate tailored, equitable CST credit products that scale up access to finance for the most underserved MSMEs and farmers.</p>	<p>To promote the adoption of CST for food security, climate resilience, and low-carbon development among the most vulnerable populations by sharing lessons learned and KCB's climate risk-integrated lending mechanisms. This activity strengthens the enabling environment by building institutional capacity across financial institutions to support effective implementation and systemic transformation, and aims to scale up CST uptake among other FIs operating in challenging markets - where high-risk borrowers and the complexity of capturing climate impact hinder investment. It supports the integration of climate risk assessment into financial portfolios in alignment with Government of Kenya</p>	<p>3.1.1.1 Sign MOU with the Kenya Bankers Association to promote CST financing among FIs, and collaborate with FIs, Kenya National Chamber of Commerce and Industry, Ministry of Finance, Ministry of Agriculture, Farmers Cooperatives Eastern Africa Farmers Federation, research institutions, and other pertinent stakeholders.</p> <p>3.1.1.2 Conduct targeted trainings for financial institutions and market actors on loan origination practices for tailored, equitable CST credit products, with a focus on improving access for hardest-to-reach MSMEs and farmers and improve climate resilience.</p>	<ul style="list-style-type: none"> • 3.1.1.1 MOU with the Kenya Bankers Association • 3.1.1.2 Validation workshop report • 3.1.1.3 Kenya Brief, recommendations, and Road Map to promote institutional capacity for equitable CST loan origination among MSMEs and farmers. At least [3] policy roundtables and [2] policy briefs developed [per year], with documented input from women/youth/MSME associations.

	<p>initiatives, including the Climate-Smart Agriculture Strategy, the CSA Investment Plan, and emerging efforts to mainstream climate risk into financial sector operations.</p>	<p>3.1.1.3 Develop a country baseline brief, recommendation, and a Road Map for FI sector to strengthen institutional capacity for CST financing, drawing on KCB's climate risk-integrated lending framework and lessons learned. Host roundtables with NDA, CBK, ministries to develop CST finance roadmap and to draft policy briefs.</p>	
<p>Activity 3.2.1 Knowledge dissemination on CST Facility, climate impact data collection, and information management.</p>	<p>This activity relies on robust data collection, management, and dissemination mechanisms built for CST Facility within KCB. It leverages partnerships, data systems, and communication frameworks to support climate impact tracking, promote transparency, and disseminate knowledge to stakeholders.</p>	<p>3.2.1.1 Develop reports on CST Facility for peers and investment strategies for scaling climate impact assessment of credit products in Kenya, informed by consultations based on the results of the first-year CST cycle.</p> <p>3.2.1.2 Promote the adoption of CSTs and climate impact assessment through knowledge dissemination, including lessons learned and recommended strategy reports, in Kenya's finance and agricultural sectors.</p> <p>3.2.1.3 Conduct a workshop on investment strategies for scaling climate impact assessment of credit products in Kenya with pertinent stakeholders incl. FI players, policymakers, authorities, business associations.</p> <p>3.2.1.4 Conduct regular stakeholder consultations, feedback surveys, and operate a multi-tiered GRM.</p> <p>3.2.1.5 Create a digital "TA Knowledge Hub" (e.g., SharePoint/Google Drive) for all materials, lessons, and Q&A forums. Reference this in all training and reporting activities</p>	<ul style="list-style-type: none"> • 3.2.1.1 Report on CST Facility performance for peers and investment strategies for scaling climate impact assessment of credit products in Kenya based on consultation session. • 3.2.1.2 Four reports issued every two years and published, documenting lessons learned and success case studies from CST implementation including with at least 30% featuring women/youth, disseminated within Kenya's finance and agricultural sectors. • 3.2.1.3 Workshop report summarizing lessons learned and consultations on investment strategies for scaling climate impact assessment of credit products in Kenya. • 3.2.1.4 Quarterly stakeholder feedback reports and annual GRM review with resolution statistics.
<p>Activity 3.2.2 Facilitate engagement with financial market actors to institutionalize</p>	<p>This activity focuses on scaling up the CST financing by engaging other commercial</p>	<p>3.2.2.1 Develop operational guidelines for CST replication including eligibility criteria,</p>	<ul style="list-style-type: none"> • 3.2.2.1 One set of operational guidelines and tools for CST replication.

<p>CST credit products and align climate impact assessment practices in line with CBK initiatives.</p>	<p>banks and FIs in Kenya to replicate the CST Facility model. This transition aims to ensure the long-term sustainability and impact of the CST as the GCF gradually exits its support role. KCB will facilitate structured engagement with financial market actors to embed CST credit products into mainstream lending portfolios and harmonize climate risk evaluation and reporting practices with the Central Bank of Kenya's climate finance frameworks, including its disclosure standards and green finance taxonomy.</p>	<p>RMM integration, and climate impact tracking tools for replicated credit lines.</p> <p>3.2.2.2 Conduct stakeholders' consultation to present the CST model and its outcomes and establish partnership frameworks with interested banks.</p> <p>3.2.2.3 Establish a technical working group within the Kenya Bankers Association with commercial banks and FIs members to co-develop climate risk screening protocols, portfolio-level impact metrics, and reporting templates aligned with CBK's Climate Risk Disclosure Framework and green finance taxonomy.</p>	<ul style="list-style-type: none"> • 3.2.2.2.A Workshop report on promoting CST replication. • 3.2.2.2.B At least three letters of interest from Kenyan commercial banks for CST replication. • 3.2.2.3 Memo on the CST technical Working Group establishment within the Kenya Bankers Association
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E.7. Monitoring, reporting and evaluation arrangements (max. 500 words, approximately 1 page)

Besides the arrangements (e.g. annual performance reports) laid out in Accreditation Master Agreement (AMA), please give a summary of the project/programme specific arrangements for monitoring, reporting and evaluation including a description of the monitoring and reporting system that will be used to assess the climate results of the proposed activity. Please also summarize the types of interim and final evaluations. Describe Accredited Entity (AE) project reporting relationships, including to the National Designated Authority (NDA)/Focal Point and between AE and Executing Entity (EE) as relevant, identifying reporting obligations from the EE to the AE. This should relate to the frequency of reporting on project indicators, implementation challenges and financial status. Please note that interim and final evaluations are expected to embed an assessment of project/programme's contributions to a paradigm shift and enabling environment using a three-point scale rating. Refer to the guidance note for the summary requirements and factor in additional evaluation /assessment activities under this section accordingly.

311. The Monitoring, Evaluation, and Learning (MEL) framework is anchored in a Results-Based Management (RBM) approach, ensuring a clear causal linkage between Programme resources, outputs, outcomes, and transformational impacts as articulated in the Programme's logical framework. This structure aligns with the Green Climate Fund's (GCF) mandate for results-oriented programming and accountability, emphasizing not only activity tracking but also the Programme's contribution to paradigm shifts toward inclusive, low-emission, and climate-resilient development in Kenya.

312. The MEL framework is structured as a dynamic learning loop, moving beyond compliance reporting to become a tool for adaptive management, evidence-based decision-making, and knowledge generation. Drawing on lessons from GCF portfolio evaluations in Africa, the system integrates beneficiary perspectives and "ground-level" experiences, ensuring that monitoring results are directly relevant to adaptive management. By triangulating climate, economic, and social data, the Programme will generate an evidence base that demonstrates a clear shift from business-as-usual towards resilient and inclusive development pathways.

313. The MEL system is organized into cascading levels of responsibility to safeguard data quality, enable real-time feedback, and support adaptive management:

- **Field-Level Data Collection:** At the sub-project level, MSMEs, field facilitators, and contractors will utilize standardized checklists, digital tools, and logbooks for routine data entry, incident reporting, and compliance verification. This ensures that primary data is collected consistently and in a format that allows for easy aggregation.

- **Branch and Safeguards Team Monitoring:** KCB's branch network and the central Safeguards Team will conduct routine verification of field-level data through spot checks and annual compliance reviews. They will be responsible for data quality assurance and for escalating any identified risks or instances of non-compliance to the Programme Management Unit (PMU) for corrective action.
- **Central PMU Oversight:** The PMU will be responsible for the aggregation of all Programme data into a centralized, real-time digital M&E dashboard. This platform will enable Programme-wide analytics, the tracking of Key Performance Indicators (KPIs), and the generation of early warnings for environmental and social (E&S) risks or gaps in social inclusion.

314. The M&E system will employ a data triangulation methodology to enhance the validity and reliability of its findings. This involves integrating and cross-referencing data from three primary sources: primary project-level data collected from sub-borrowers; secondary data from national statistical surveys and partner agencies; and data generated from specific studies and surveys commissioned by the Programme to measure changes at the beneficiary level.

315. An online results database will standardize data entry, archiving, and reporting, leveraging KCB's secure digital infrastructure. Customized dashboards will facilitate real-time monitoring, automated reporting, and compliance tracking. Findings will be disseminated through a results communication framework, including annual technical and financial reports to stakeholders.

316. The M&E system will employ a data triangulation methodology to enhance the validity and reliability of its findings. This involves integrating and cross-referencing data from three primary sources: primary project-level data collected from sub-borrowers; secondary data from national statistical surveys and partner agencies; and data generated from specific studies and surveys commissioned by the Programme to measure changes at the beneficiary level.

317. All beneficiary-level data will be disaggregated by gender, age, vulnerability status (including Persons with Disabilities and Indigenous Peoples), sector, and geography. This ensures compliance with the GCF Gender Policy and Revised Environmental and Social Policy, while enabling a nuanced understanding of inclusivity and equity in Programme outcomes.

318. The Programme has established a comprehensive Evaluation Plan to ensure an objective and rigorous assessment of its performance, impact, and sustainability. This plan includes a series of independent evaluations conducted by external experts at key milestones of the Programme lifecycle.

- **Baseline Evaluation:** A baseline evaluation will be conducted at the Programme's inception. This study will employ both quantitative and qualitative methods to establish and validate the pre-implementation status of all strategic objectives and outcome-level indicators. It will provide the essential benchmark against which the Programme's future performance and impact will be measured.
- **Mid-Term Evaluation:** An independent mid-term evaluation will be conducted at the midpoint of the Programme. This formative assessment will critically review the Programme's progress, effectiveness, efficiency, and continued relevance. It will identify strengths, challenges, and emerging risks, generating actionable operational and strategic recommendations to inform any necessary course corrections for the remainder of the implementation period.
- **Final Evaluation:** A summative final evaluation will be conducted upon completion of the Programme. This evaluation will assess the overall performance, relevance, sustainability, and scalability of the results. It will determine the extent to which the Programme contributed to the GCF's goal of achieving a paradigm shift in climate adaptation and mitigation in Kenya, documenting co-benefits and extracting key lessons learned to inform future project design and management.

319. A distinctive and critical component of the evaluation plan is the inclusion of two dedicated gender-sensitive impact assessments, to be conducted at the end of Year 3 and Year 5. These assessments will utilize a mixed-methods approach to analyze how the Programme is impacting men and women differently, assess progress on the Gender Action Plan, and identify any gender-based barriers or enablers to participation. This proactive commitment to measuring and

enhancing gender-transformative outcomes aligns with best practices advocated by the GCF and ensures that gender equality remains central to the Programme's impact story.

320. All findings from the M&E system and the independent evaluations will directly inform the Programme's adaptive management processes. The results will be systematically fed into annual work planning and review cycles, driving evidence-based updates to the ESMF, the Gender Action Plan, and operational procedures. This iterative learning approach, which reflects key lessons from past GCF evaluations on the importance of flexibility and continuous improvement, ensures that the Programme remains responsive, effective, and impactful throughout its lifecycle.

F. RISK ASSESSMENT AND MANAGEMENT

F.1. Risk factors and mitigations measures (max. 3 pages)

Please describe financial, technical, operational, macroeconomic/political, money laundering/terrorist financing (ML/TF), sanctions, prohibited practices, and other risks that might prevent the project/programme objectives from being achieved. Also describe the proposed risk mitigation measures. Insert additional rows if necessary.

For probability: High has significant probability, Medium has moderate probability, Low has negligible probability

For impact: High has significant impact, Medium has moderate impact, Low has negligible impact

Prohibited practices include abuse, conflict of interest, corruption, retaliation against whistleblowers or witnesses, as well as fraudulent, coercive, collusive, and obstructive practices

Selected Risk Factor 1: Credit risks

Category	Probability	Impact
<u>Credit</u>	<u>Medium</u>	<u>Medium</u>

Description

Please describe the risk to the best of your knowledge at this point in time.

Credit risks are inherent to lending activities, particularly in the agriculture and MSME sectors, where climate variability, fluctuating market prices, and lack of collateral create significant repayment challenges. Given that CST facility loans will be concessional with easier access to financing and reduced collateral requirements, borrowers' discipline might be affected and ability to repay could be impacted by market uncertainties or extreme weather events affecting agricultural and business activities output.

Mitigation Measure(s)

Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?

- ✓ Robust Credit Risk Management Framework: KCB will implement a non-performing loans (NPL) containment strategy, including enhanced risk assessments, early warning systems, and borrower monitoring.
- ✓ Strengthening Agricultural Risk Mitigation: Utilization of the GCF guarantee to mitigate risks and adjustment of the credit terms including diversification of climate risk insurance products after implementation phase analysis.
- ✓ Technical Assistance for Farmers and MSMEs: Financial literacy training, climate risk awareness, and business development support to improve repayment capacity.

Selected Risk Factor 2: Kenyan currency fluctuation risk

Category	Probability	Impact
<u>Forex</u>	<u>High</u>	<u>Medium</u>

Description

Please describe the risk to the best of your knowledge at this point in time.

Foreign exchange fluctuations pose a risk to loan repayments, particularly for CST facility KES loans denominated in USD putting burden on the hardest-to-reach borrowers. If sharp devaluation of the KES will not be passed on the borrowers (MSMEs and farmers) it will increase the risk for the loan repayment to the facility co-financiers (the GCF and KCB) and discourage the market from replicating and scaling up this Programme in the future.

Mitigation Measure(s)

Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?

- ✓ KCB will structure local lending in KES, reducing exposure to forex volatility for borrowers.
- ✓ Adaptive management strategy to adjust financing mechanisms in response to currency fluctuations.
- ✓ GCF and KCB will integrate hedging mechanisms and financial instruments to manage potential exchange rate risks.

Selected Risk Factor 3: Climate vulnerability risks

Category	Probability	Impact
<u>Other</u>	<u>Medium</u>	<u>Select</u>
Description		
<p><i>Please describe the risk to the best of your knowledge at this point in time.</i></p> <p>Kenya is highly vulnerable to climate-induced risks such as droughts, floods, and erratic rainfall. These events disrupt infrastructure, business operations, agricultural productivity, impacting borrowers' ability to repay loans with amplified risk for the targeted group of the borrower - hardest-to-reach farmers and MSMEs.</p>		
Mitigation Measure(s)		
<p><i>Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?</i></p> <ul style="list-style-type: none"> ✓ Integration of climate risk assessment tools: Strengthening KCB's Climate Assessment for Financial Institutions (CAFI) tool to incorporate risk-based lending decisions. ✓ Support for resilient business and farming practices: Encouraging investments in drought-resistant crops, efficient irrigation systems, and agroforestry, developing strategies to mitigate disruptions in MSMEs operations due to damaged infrastructure due to climate impact. ✓ Parametric Climate Insurance: Exploring options for climate-indexed insurance to safeguard against extreme weather shocks. 		
Selected Risk Factor 4: Demand risks		
Category	Probability	Impact
<u>Technical and operational</u>	<u>Low</u>	<u>Medium</u>
Description		
<p><i>Please describe the risk to the best of your knowledge at this point in time.</i></p> <p>Lack of awareness of CSTs benefits or limited uptake of CST facility loans due to perceived risks, complex loan application processes, no access to lending institutions, or low trust in financial institutions. High upfront costs and lack of access to CSTs could hinder farmers and MSMEs' ability to transition to low-emission, climate-resilient practices.</p>		
Mitigation Measure(s)		
<p><i>Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?</i></p> <ul style="list-style-type: none"> ✓ Extensive in-person awareness and capacity building campaigns will inform MSMEs and farmers about available credit facilities and CSTs benefits, extensive stakeholders' engagement for raising awareness and knowledge sharing about the Programme opportunities for farmers and MSMEs and success stories. ✓ Retaining knowledge and capacity building materials in a digital and printed form to be shared by agents of the Programme with the targeted beneficiaries. ✓ Offering concessional funding to farmers and MSMEs with affordable interest rates and reduced fees will incentivize participation. ✓ Sharing cost-benefit analysis to promote adoption of CSTs as compared to BAU technologies without adaptation to climate impact will convince farmers and MSMEs to adopt CSTs. ✓ Streamlining digital lending solutions of KCB's mobile-based lending will reach hardest-to-reach borrowers in remote areas or during disruption of operations due to climate risks. ✓ Due to KCB's extensive branch network across the country, the Programme will ensure effective outreach to potential beneficiaries to facilitate smooth implementation. ✓ Only sustainable vendors of CSTs with after-sale activities will be eligible to partner with the Programme to ensure positive outcome for the farmers and MSMEs through adoption of CSTs. 		
Selected Risk Factor 5: Supply risk		
Category	Probability	Impact
<u>Technical and operational</u>	<u>Low</u>	<u>Medium</u>

Description		
<p><i>Please describe the risk to the best of your knowledge at this point in time.</i></p> <p>Private sector actors may be reluctant to engage with hardest-to-reach MSMEs and farmers due to perceived high operational costs, logistical challenges, and financial risks. This reluctance could limit the availability of CSTs, financial services, and market linkages, hindering the Programme's objectives.</p>		
Mitigation Measure(s)		
<p><i>Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?</i></p> <ul style="list-style-type: none"> ✓ CST facility concessional funding will enhance financial capacity of the hardest-to-reach farmers and MSMEs to adopt CSTs creating incentives for the private sector supply chain players to expand their operations even in the challenging market niche (remote areas, places severely affected by climate change, etc.). ✓ CST will compile a list of potential CST vendors and conduct extensive outreach efforts from Year 1 of the Programme implementation to identify solutions for serving the hardest-to-reach farmers and MSMEs by the CSTs supply chain players. ✓ Facilitating partnerships between KCB, CSTs providers, farmers cooperatives, and MSMEs will establish supply chains and link farmers with technology solutions, ensuring accessibility and affordability. ✓ Collaborating with government agencies and industry stakeholders to create partnership that support private sector investment in climate-smart solutions for hard-to-reach populations. 		
Selected Risk Factor 6: Procurement risk (Programme activities)		
Category	Probability	Impact
<u>Technical and operational</u>	<u>Medium</u>	<u>Low</u>
Description		
<p><i>Please describe the risk to the best of your knowledge at this point in time.</i></p> <p>The Programme relies on consultants and expert firms implementing component 2 and component 3. Lack of compliance with procurement standards and limited procurement capacity among project implementers may delay the Programme progress. Limited expertise of consultants to meet the Programme objectives can delay or jeopardize quality of the Programme implementation.</p>		
Mitigation Measure(s)		
<p><i>Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?</i></p> <ul style="list-style-type: none"> ✓ All procurement will follow KCB's procurement policy and adhere to GCF-accredited standards to ensure procurement oversight mechanisms and that only experienced firms can compete for the award to support implementation of the Component 2 and 3 of the Programme. ✓ Consultant firms will be selected among local and international service providers on a competitive basis with highly elaborative selection criteria including experience in implementation of GCF Programmes in the past and local presence for work with hardest-to-reach potential beneficiaries. 		
Selected Risk Factor 7: Impact sustainability risk		
Category	Probability	Impact
<u>Other</u>	<u>Low</u>	<u>Medium</u>
Description		
<p><i>Please describe the risk to the best of your knowledge at this point in time.</i></p> <p>Farmers and MSMEs may lack the necessary climate management information or technical expertise to adopt and apply CSTs systematically in a sustainable way as required for the proof of concept to replicate and scale up the Programme.</p>		
Mitigation Measure(s)		

Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?

- ✓ Tailored training programs for financial literacy, climate risk management, and CST application training will be held on a regular basis throughout implementation of the Programme. Materials will be retained for knowledge distribution in a digital and paper form to scale up the Programme among potential beneficiaries.
- ✓ CST facility Programme will deploy integrated digital knowledge platform services and mobile learning tools to ensure last-mile access to climate knowledge.

Selected Risk Factor 8 Money laundering, terrorist financing, and illicit practices

Category	Probability	Impact
<u>Governance</u>	<u>Low</u>	<u>Medium</u>

Description

Please describe the risk to the best of your knowledge at this point in time.

Risk of Programme resources being misused for illicit financial activities, including money laundering or fraud.

Mitigation Measure(s)

Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?

- ✓ The Programme implementation objectives will include compliance with KCB's Integrity Framework through ensuring rigorous due diligence and screening for all beneficiaries.
- ✓ This risk will be mitigated through a whistleblower and reporting mechanisms, i.e. establishing hotlines and online reporting platforms for fraud detection.

Selected Risk Factor 9 Security risk

Category	Probability	Impact
<u>Technical and operational</u>	<u>Low</u>	<u>Medium</u>

Description

Please describe the risk to the best of your knowledge at this point in time.

Certain project areas face security risks from inter-communal conflicts, banditry, and instability.

Mitigation Measure(s)

Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?

- ✓ Reducing the need for physical banking visits in volatile regions through remote & digital lending solutions.
- ✓ Regular security assessments and engagement with local authorities and community leaders for risk monitoring & local partnerships.

G. GCF POLICIES AND STANDARDS

G.1. Environmental and social risk assessment (max. 750 words, approximately 1.5 pages)

Provide the environmental and social risk category assigned to the proposal as a result of screening and the rationale for assigning such category. Present also the environmental and social assessment and management instruments developed for the proposal (for example, Environment and Social Impact Assessment (ESIA), Environment and Social Management Framework (ESMF), Environment and Social Management Plan (ESMP), Environment and Social Management System (ESMS), environmental and social audits, etc.). Provide a summary of the main outcomes of these instruments. Present the key environmental and social risks and impacts and the measures on how the project/programme will avoid, minimize and mitigate negative impacts at each stage (e.g. preparation, implementation and operation), in accordance with GCF's Environmental and Social Safeguard (ESS) standards. If the proposed project or programme involves investments through financial intermediations, describe the due diligence and management plans by the Executing Entities (EEs) and the oversight and supervision arrangements. Describe the capacity of the EEs to implement the ESMP and ESMF and arrangements for compliance monitoring, supervision and reporting. Include a description of the project/programme-level grievance redress mechanism, a summary of the extent of multi-stakeholder consultations undertaken for the project/programme, the plan of the Accredited Entity (AE) and EEs to continue to engage the stakeholders throughout project implementation, and the manner and timing of disclosure of the applicable safeguards reports following the requirements of the GCF [Information Disclosure Policy](#) and [Environmental and Social Policy](#).

Describe any potential impacts on indigenous peoples and the measures to address these impacts including the development of an Indigenous Peoples Plan and the process for meaningful consultation leading to free, prior and informed consent, pursuant to the GCF [Indigenous Peoples Policy](#).

Attach the appropriate assessment and management instruments or other applicable studies, depending on the environmental and social risk category as annex 6.

321. The Programme has been assigned an Environmental and Social Risk Category B. This classification is based on a thorough assessment concluding that the Programme's activities - primarily the financing of numerous micro, small, and medium enterprises (MSMEs) and farmers for the adoption of Climate-Smart Technologies (CSTs) - are likely to have environmental and social (E&S) impacts that are limited in scope, site-specific in nature, and largely reversible. These moderate risks can be readily identified and managed through the application of established mitigation and management measures.

322. A cornerstone of the Programme's safeguard architecture is the proactive exclusion of all high-risk activities. Any sub-project that would be classified as Category A - defined as having significant, irreversible, or unprecedented adverse E&S impacts - is explicitly ineligible for financing under the Programme's comprehensive Exclusion List. This includes, but is not limited to, activities that would trigger involuntary resettlement, cause significant degradation of critical natural habitats, or involve the large-scale production or use of hazardous substances. This robust upfront screening is a fundamental best practice for financial intermediaries managing diverse portfolios and ensures that the Programme's risk profile remains within the moderate (Category B) classification.

323. To operationalize this risk management approach, KCB will apply a rigorous, multi-step Environmental and Social Due Diligence (ESDD) process to every loan application submitted for financing under the Programme. This systematic process ensures that E&S risks are identified, assessed, and categorized before any funding is committed. The ESDD process involves the following sequential steps:

1. **Initial Screening:** All potential sub-projects are first screened against the Programme's Exclusion List to identify and reject any ineligible activities at the outset.
2. **Preliminary E&S Risk Screening:** Sub-projects that pass the initial screen undergo a preliminary risk assessment using standardized checklists to capture key information on the activity's sector, location, scale, and potential social and environmental sensitivities.
3. **Risk Categorization:** Based on the screening results, each sub-project is classified as Category A (High Risk - Excluded), Category B (Moderate Risk), or Category C (Low Risk).
4. **Detailed ESDD:** For any sub-projects flagged as potentially having moderate risks (Category B), a more detailed due diligence is conducted to fully understand the nature and extent of the potential impacts and to define the required mitigation measures.

324. This structured ESDD process ensures that the Programme's safeguard requirements are applied consistently and effectively across the entire portfolio, from the earliest stages of loan application through to final approval.
325. A comprehensive, Programme-level Environmental and Social Management Framework (ESMF) has been developed to serve as the overarching safeguard instrument governing all Programme activities. The ESMF provides the institutional and procedural architecture for identifying, assessing, managing, and monitoring E&S risks and opportunities in a manner that is fully compliant with the GCF's requirements for an Environmental and Social Management System (ESMS). The framework is a "living" document, designed to be reviewed and updated annually to remain responsive to changes in the legal context, operational realities, and lessons learned during implementation.
326. The ESMF operationalizes a "higher-of" standards principle, ensuring full alignment with the most stringent requirements drawn from multiple legal and policy sources. This includes compliance with the Constitution of Kenya and the Environmental Management and Coordination Act (EMCA); the GCF's updated Environmental and Social Standards; and the International Finance Corporation (IFC) Performance Standards. This approach guarantees that the Programme adheres to international best practices while respecting and fulfilling all national legal obligations, a critical feature for managing compliance in a complex regulatory environment.
327. A central requirement of the ESMF is that for any sub-project classified as moderate risk (Category B), the development of a site-specific Environmental and Social Management Plan (ESMP) is mandatory. The ESMP is the primary tool for translating the broad principles of the ESMF into concrete, actionable mitigation measures at the sub-project level. The ESMF provides detailed sectoral guidance, templates, and a clear process for the development, review, and approval of these ESMPs, ensuring that each moderate-risk activity has a tailored plan to manage its specific E&S impacts effectively.
328. The Programme's safeguard architecture demonstrates a mature and proactive approach to risk management, moving beyond a simple "do no harm" compliance posture. The ESMF is supported by a comprehensive suite of integrated and specialized safeguard instruments, each designed to proactively plan for and manage specific, identified risks across the portfolio. This integrated system transforms the safeguard function from a mere screening exercise into a dynamic mechanism for mitigating risks and enhancing positive social and environmental outcomes, reflecting a significant institutional strength for a financial intermediary like KCB. The key integrated safeguard instruments include:
- **Indigenous Peoples Planning Framework (IPPF):** Recognizing that the Programme will operate in counties inhabited by Indigenous Peoples (such as the Maasai, Samburu, and Turkana), a dedicated IPPF has been developed. This framework guides all interventions that may affect these communities, mandating a rigorous process of screening for potential impacts, conducting culturally appropriate social assessments, and ensuring a process of Free, Prior, and Informed Consent (FPIC) is undertaken before any sub-project activities proceed in their territories.
 - **SEAH Framework:** A robust framework to prevent and respond to risks of Sexual Exploitation, Abuse, and Harassment (SEAH) is fully integrated into the ESMF. This framework establishes a clear policy, codes of conduct for all Programme personnel, and survivor-centered prevention and response protocols that apply to all Programme activities and partners.
 - **Grievance Redress Mechanism (GRM):** A multi-tiered and highly accessible GRM has been established to ensure accountability to all stakeholders. The GRM provides clear and transparent procedures for lodging complaints, with accessible channels at the local, regional, and national levels. Crucially, it includes confidential and safe reporting pathways for sensitive complaints, such as those related to SEAH, ensuring that all grievances can be raised and addressed without fear of reprisal.
 - **Thematic Management Plans:** The ESMF is further reinforced by a suite of detailed, thematic management plans that provide specific technical guidance for managing common risks within the Programme's target sectors. These include an Agrochemical Management Plan, a Biodiversity Management Plan, and an Occupational Health and Safety (OHS) Procedure.
329. This comprehensive suite of instruments ensures that KCB is equipped not just to screen out unacceptable risks, but to actively manage and mitigate the moderate risks inherent in its portfolio, thereby safeguarding communities and the environment while maximizing the Programme's development impact.

Provide a summary of the gender assessment and project/programme-level gender action plan that is aligned with the objectives of GCF's [Gender Policy](#). Confirm a gender assessment and action plan exists describing the process used to develop both documents. Provide information on the key findings (who is vulnerable and why) and key recommendations (how to address the vulnerability identified) of the gender assessment. Indicate if stakeholder consultations have taken place and describe the key inputs integrated into the action plan, including: how addressing the vulnerability will ensure equal participation and benefits from funds investment; key gender-related results to be expected from the project/programme with targets; implementation arrangements that the AE has put in place to ensure activities are implemented and expected outcomes will be achieved, monitored and evaluated.

Provide the full gender assessment and project-level gender action plan as annex 8.

330. The design of this Programme's gender and social inclusion strategy is rigorously evidence-based, grounded in the findings of a comprehensive Gender and Social Inclusion (GESI) Assessment. This assessment utilized a mixed-methods approach, combining desk reviews, perception surveys, and extensive stakeholder consultations, including Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) conducted across target counties such as Turkana, Narok, Kajiado, and Garissa. This foundational analysis aligns with the GCF's core requirement that all funding proposals be informed by a thorough gender assessment to ensure that interventions are context-specific and responsive to the differentiated needs and capacities of women and men.
331. The GESI assessment identified deep-seated, systemic, and intersecting barriers that significantly hinder the ability of women, youth, and Persons with Disabilities (PWDs) to participate in and benefit from climate finance and the adoption of Climate-Smart Technologies (CSTs). The key findings are summarized below:
- **Economic and Financial Barriers:** Women face systemic exclusion from formal finance due to a lack of traditional collateral, such as land titles, which are predominantly held by men. This is compounded by lower levels of financial literacy, limited mobility, and discriminatory lending practices. The assessment found that while women own a majority of unlicensed MSMEs (60.7%), this informal status further restricts their access to formal credit channels.
 - **Educational and Capacity Gaps:** Female MSME owners generally have lower levels of educational attainment than their male counterparts. This affects their confidence and ability to navigate complex financial application processes. A perception survey revealed that only 26.1% of female respondents expressed confidence in their financial literacy, compared to 42.9% of male respondents.
 - **Socio-Cultural Norms:** Deep-rooted patriarchal structures, particularly in pastoralist communities, limit women's decision-making power over household resources and their participation in business and leadership roles. Furthermore, women bear a disproportionate burden of unpaid care and domestic work, which severely constrains the time and energy they can dedicate to economic activities.
 - **Institutional Gaps:** The assessment identified significant gaps within KCB's own institutional frameworks. Existing credit policies and operational manuals were found to lack explicit GESI provisions, such as requirements for gender-disaggregated data collection, the development of targeted products, or the application of inclusive lending criteria. This institutional oversight inadvertently reinforces existing societal inequalities.
332. In direct response to the GESI assessment, the Programme has developed a detailed, Programme-level Gender and Social Inclusion Action Plan (GAP) designed to be gender-transformative. The GAP is not an afterthought but a central pillar of the Programme's design, providing a practical and targeted roadmap for mainstreaming gender equality and social inclusion throughout the Programme's lifecycle. Its interventions were co-developed through the stakeholder consultation process. The design of the GAP reflects established best practices and lessons learned from successful GCF-funded projects that have prioritized gender equality. Furthermore, the GAP incorporates a "credit-plus" model, which bundles the provision of finance with targeted technical assistance and capacity building. This holistic approach has been proven effective in overcoming the dual barriers of access to capital and capacity constraints.
333. This strategic design ensures that the Programme moves beyond simply being "gender-aware" to being actively "gender-transformative." It does so by implementing a dual strategy that combines top-down institutional reform with bottom-up community empowerment. The GAP pairs community-level interventions - such as financial literacy training, mentorship platforms, and support for women's savings groups - with deep, structural changes within KCB itself, including the revision of credit policies and the introduction of GESI scorecards into staff performance reviews. This creates a powerful, self-reinforcing cycle: as KCB staff are incentivized to pursue inclusive lending, they become more responsive to the needs of women entrepreneurs. Simultaneously, as women's capacity and confidence are built, they are better equipped to engage with the newly responsive institution. This dual approach,

which addresses both the supply side (KCB's products and policies) and the demand side (women's capacity), is far more likely to catalyze lasting, systemic change than a single-faceted strategy.

334. The GAP employs a multi-pronged strategy to systematically dismantle the barriers identified in the GESI assessment. This strategy is operationalized through a set of concrete interventions, each with quantifiable targets, clear timelines, and a dedicated budget, ensuring accountability for results. The core interventions of the GAP include:

- **Developing Gender-Responsive Financial Products:** The Programme will create and roll out CST loan products specifically designed to meet the needs of women and other marginalized groups. A key feature will be the acceptance of flexible collateral options, such as group guarantees, movable assets (e.g., equipment, inventory), and other non-traditional forms of security. A headline target has been set to allocate at least 30% of the total CST financing to women-led enterprises.
- **Targeted Capacity Building:** To address the identified knowledge and confidence gaps, the Programme will deliver a comprehensive capacity-building initiative. This includes financial literacy and technical CST training workshops, with a firm target that at least 50% of all participants will be women, youth, or PWDs. In addition, mentorship platforms will be established to connect aspiring female entrepreneurs with established leaders in the CST sector, fostering peer learning and leadership development.
- **Institutional Strengthening within KCB:** Recognizing that sustainable change requires institutional reform, KCB will revise its internal credit and risk policies to explicitly integrate GESI targets and principles. GESI scorecards will be introduced into the performance reviews of loan officers and relevant staff to create clear incentives for inclusive lending. The Programme's Climate Assessment for Financial Institutions (CAFI) tool will also be enhanced to systematically track and report gender-disaggregated data, enabling robust monitoring of the Programme's inclusive impact.
- **Addressing Gender-Based Violence (GBV):** The GESI assessment identified GBV as a significant underlying barrier to women's economic empowerment in the target areas. The GAP therefore includes measures to mainstream GBV risk mitigation across all Programme activities. This involves developing screening tools to identify risks at the sub-project level, raising awareness among staff and beneficiaries, and mapping referral pathways to ensure that survivors can access appropriate support services.

G.3. Financial management and procurement (max. 500 words, approximately 1 page)

Describe the project/programme's financial management including the financial monitoring systems, financial accounting, auditing, and disbursement structure and methods. Refer to section B.4 on implementation arrangements as necessary.

Articulate any procurement issues that may require attention, e.g. procurement implementation arrangements and the role of the AE under the respective proposal, articulation of procurement risk assessment undertaken and how that will be managed by the AE or the implementing agency. Provide a detailed procurement plan as annex 10.

335. The financial management structure of the CST Facility Programme ensures robust financial monitoring, accounting, auditing, and disbursement mechanisms, maintaining transparency and accountability. KCB, as the Accredited Entity (AE), will oversee all financial monitoring and reporting, ensuring compliance with GCF standards. A comprehensive financial tracking system will be integrated to monitor fund flows according to the GCF terms sheet, disbursements, and repayments, as required by the KCB's risk and compliance policies. To uphold financial integrity, independent annual audits will be conducted by external auditors with solid track record, ensuring adherence to both GCF and KCB financial regulations. Furthermore, KCB's digital lending platform will play a key role in real-time monitoring of loan performance, disbursement progress, and repayment trends, thereby improving financial reporting accuracy.

336. The disbursement structure follows a blended finance model, where the GCF concessional loan and KCB's co-financing will be disbursed in phased tranches based on predefined milestones. This mechanism de-risks lending for hardest-to-reach MSMEs and farmers, ensuring capital efficiency in achieving targeted climate and socio-economic impact. CST loans will be issued through KCB's extensive branch network and digital lending channels, leveraging its financial inclusion infrastructure to facilitate access to funding for the hardest-to-reach. Additionally,

the GCF guarantee mechanism will play a critical role in mitigating non-repayment risks of hardest-to-reach borrowers, thereby incentivizing private sector participation in financing CSTs.

337. All goods and services procured under the Programme will follow KCB's procurement policy, ensuring transparent, competitive, and efficient procurement in congruence with the GCF guidelines. KCB will retain full oversight of procurement activities: the procurement process will begin with the preparation of Terms of Reference (ToR), which will clearly define specifications, objectives, and expected outcomes for procured goods and services. This will be followed by an Expression of Interest (EOI) and pre-selection phase, where public calls for EOIs will be posted on KCB's procurement portal for at least 10 working days. Shortlisted suppliers will then be invited to submit Request for Quotation (RFQ) based on technical specifications, delivery timelines, and pricing criteria.

338. The Programme will employ multiple procurement methods tailored to different types of acquisitions. Lowest price selection will be used for standardized or routine procurement where technical specifications are straightforward, while quality and cost-based selection will be applied for high-value or complex procurements that require a balance of quality and affordability. In cases requiring specialized expertise or emergencies, direct selection will be utilized, whereas framework agreements will be established for long-term procurement arrangements for recurring needs, ensuring efficiency in acquiring climate-smart technologies.

339. To mitigate procurement risks for farmers and MSMEs, KCB will include requirements to the vendors of CSTs to ensure compliance with best practices, such as after-sale service, warranty where applies and quality assurance of the CSTs manufacturer. Capacity-building programs will be introduced for CSTs vendors and local MSMEs, enabling them to participate in the supply chain effectively. To maintain procurement integrity, independent third-party procurement audits will be conducted annually, ensuring that all transactions adhere to KCB's procurement integrity framework and GCF's fiduciary standards.

340. These measures ensure that procurement is conducted transparently, efficiently, and in compliance with both GCF and national financial regulations. A detailed procurement plan is provided in Annex 10.

G.4. Disclosure of funding proposal

Note: The Information Disclosure Policy (IDP) provides that the GCF will apply a presumption in favour of disclosure for all information and documents relating to the GCF and its funding activities. Under the IDP, project and programme funding proposals will be disclosed on the GCF website, simultaneous with the submission to the Board, subject to the redaction of any information that may not be disclosed pursuant to the IDP. Information provided in confidence is one of the exceptions, but this exception should not be applied broadly to an entire document if the document contains specific, segregable portions that can be disclosed without prejudice or harm.

Indicate below whether or not the funding proposal includes confidential information.

No confidential information: The accredited entity confirms that the funding proposal, including its annexes, may be disclosed in full by the GCF, as no information is being provided in confidence.

With confidential information: The accredited entity declares that the funding proposal, including its annexes, may not be disclosed in full by the GCF, as certain information is being provided in confidence. Accordingly, the accredited entity is providing to the Secretariat the following two copies of the funding proposal, including all annexes:

- full copy for internal use of the GCF in which the confidential portions are marked accordingly, together with an explanatory note regarding the said portions and the corresponding reason for confidentiality under the accredited entity's disclosure policy, and
- redacted copy for disclosure on the GCF website.

The funding proposal can only be processed upon receipt of the two copies above, if containing confidential information.

H. ANNEXES

H.1. Mandatory annexes

- Annex 1 NDA no-objection letter(s) ([template provided](#))
- Annex 2 Feasibility study - and a market study, if applicable
- Annex 3 Economic and/or financial analyses in spreadsheet format
- Annex 4 Detailed budget plan ([template provided](#))
- Annex 5 Implementation timetable including key project/programme milestones ([template provided](#))
- Annex 6 E&S document corresponding to the E&S category (A, B or C; or I1, I2 or I3):
[\(ESS disclosure form provided\)](#)
 - Environmental and Social Impact Assessment (ESIA) or
 - Environmental and Social Management Plan (ESMP) or
 - Environmental and Social Management System (ESMS)
 - Others (please specify – e.g. Resettlement Action Plan, Resettlement Policy Framework, Indigenous People’s Plan, Land Acquisition Plan, etc.)
- Annex 7 Summary of consultations and stakeholder engagement plan
- Annex 8 Gender assessment and project/programme-level action plan ([template provided](#))
- Annex 9 Legal due diligence (regulation, taxation and insurance)
- Annex 10 Procurement plan ([template provided](#))
- Annex 11 Monitoring and evaluation plan ([template provided](#))
- Annex 12 AE fee request ([template provided](#))
- Annex 13 Co-financing commitment letter, if applicable ([template provided](#))
- Annex 14 Term sheet including a detailed disbursement schedule and, if applicable, repayment schedule

H.2. Other annexes as applicable

- Annex 15 Evidence of internal approval ([template provided](#))
- Annex 16 Map(s) indicating the location of proposed interventions
- Annex 17 Multi-country project/programme information ([template provided](#))
- Annex 18 Appraisal, due diligence or evaluation report for proposals based on up-scaling or replicating a pilot project
- Annex 19 Procedures for controlling procurement by third parties or executing entities undertaking projects financed by the entity
- Annex 20 First level AML/CFT (KYC) assessment
- Annex 21 Operations manual (Operations and maintenance)
- Annex 22 Assessment of GHG emission reductions and their monitoring and reporting (for mitigation and cross cutting-projects)²³⁷
- Annex X Other references

²³⁷ Annex 22 is mandatory for mitigation and cross-cutting projects.



** Please note that a funding proposal will be considered complete only upon receipt of all the applicable supporting documents.*

No-objection letter issued by the national designated authority(ies) or focal point(s)



REPUBLIC OF KENYA
THE NATIONAL TREASURY

Telegraphic Address: 22921
FAX NO. 310833
Telephone: 2252299

THE NATIONAL TREASURY
P O BOX 30007 - 00100
NAIROBI

When Replying Please Quote

Ref: TNT/CONF/36/021/C/TY/ (74)

Date: December 2, 2025

Ms. Mafalda Duarte
Executive Director
Green Climate Fund
175 Art Centre-daero, Yeonsu-ngu
Incheon City,
REPUBLIC OF KOREA

Dear 

Re: No-objection letter in respect of the funding proposal titled "Scaling climate-smart solutions for hardest-to-reach MSMEs and farmers in Kenya (CST Facility)" submitted by KCB Bank Kenya Ltd

We refer to the funding proposal titled "Scaling climate-smart solutions for hardest-to-reach MSMEs and farmers in Kenya (CST Facility)" in Kenya submitted by KCB Bank Kenya Ltd to us on 30th, August 2025 (the Proposal").

The undersigned is the duly authorized representative of The National Treasury, the national designated authority of Kenya.

Pursuant to GCF Decisions B.08/10, B.37/22, and B.41/02, the content of which we acknowledge to have reviewed, in my capacity as representative of the national designated authority, we hereby communicate our no-objection to the Proposal.

By communicating our no-objection, it is implied that:

- (a) The government of Kenya has no-objection to the Proposal; and
- (b) The Proposal is in conformity with the national priorities, strategies and plans of Kenya.

We also confirm that our national process for ascertaining no-objection to the Proposal has been duly followed.

Notwithstanding the foregoing, we expect KCB Bank Kenya Ltd to take the necessary measures to ensure that the programme [and its sub-projects] as described in the Proposal are implemented in a manner consistent with applicable national laws.

We acknowledge that this letter will be made publicly available on the GCF website.

Yours

Sincerely
~~Chris Kiptoo~~

DR. CHRIS KIPTOO, CBS
PRINCIPAL SECRETARY/THE NATIONAL TREASURY

Copy to: **Anastacia Kimtai (Mrs)**
Managing Director
KCB Bank Kenya Limited
NAIROBI

Environmental and social safeguards report form pursuant to para. 17 of the IDP

Basic project or programme information	
Project or programme title	Scaling climate-smart solutions for hardest-to-reach MSMEs and farmers in Kenya (CST Facility)
Existence of subproject(s) to be identified after GCF Board approval	Yes
Sector (public or private)	Private
Accredited entity	KCB Bank Kenya Limited (KCB Kenya)
Environmental and social safeguards (ESS) category	Category I-2
Location – specific location(s) of project or target country or location(s) of programme	Across the territory of the Republic of Kenya
Environmental and Social Impact Assessment (ESIA) (if applicable)	
Date of disclosure on accredited entity’s website	Monday, February 23, 2026
Language(s) of disclosure	English
Explanation on language	English is an official language in Kenya
Link to disclosure	https://kcbgroup.com/download?url=https://bpr.rw/storage/sustainability/annex-06-esmf.pdf
Other link(s)	https://kcbgroup.com/sustainability-page
Remarks	An ESMP consistent with the requirements for a Category B/I-2 programme is contained in Annex 6 “Environmental and Social Management Framework (ESMF)” of the Funding Proposal. Risk screening of funded activities rated from low to moderate necessitated the development of an ESMP and not an ESIA.
Environmental and Social Management Plan (ESMP) (if applicable)	
Date of disclosure on accredited entity’s website	Monday, February 23, 2026
Language(s) of disclosure	English
Explanation on language	English is an official language in Kenya
Link to disclosure	https://kcbgroup.com/download?url=https://bpr.rw/storage/sustainability/annex-06-esmf.pdf
Other link(s)	https://kcbgroup.com/sustainability-page
Remarks	An ESMP consistent with the requirements for a Category B/I-2 programme is contained in Annex 6 “Environmental and Social Management Framework (ESMF)” of the Funding Proposal.
Environmental and Social Management System (ESMS) (if applicable)	
Date of disclosure on accredited entity’s website	N/A
Language(s) of disclosure	N/A
Explanation on language	N/A
Link to disclosure	N/A
Other link(s)	N/A
Remarks	N/A

Any other relevant ESS reports, e.g. Resettlement Action Plan (RAP), Resettlement Policy Framework (RPF), Indigenous Peoples Plan (IPP), Indigenous Peoples Planning Framework (IPPF) (if applicable)	
Description of report	<u>Annex 6: Environmental and Social Management Framework:</u>
Date of disclosure on accredited entity's website	Monday, February 23, 2026
Language(s) of disclosure	English
Explanation on language	English is an official language in Kenya
Link to disclosure	https://kcbgroup.com/download?url=https://bpr.rw/storage/sustainability/annex-06-esmf.pdf
Other link(s)	https://kcbgroup.com/sustainability-page
Remarks	An Indigenous Peoples Planning Framework (IPPF) is included in Annex 16 of the ESMF.
Disclosure in locations convenient to affected peoples (stakeholders)	
Date	Monday, December 1, 2025
Place	Hard copies of the disclosure were made available at KCB headquarters and respective branches across Kenya. KCB Kenya headquarters are located at: Kencom House, Moi Avenue, Nairobi, Kenya Branches are located at: https://ke.kcbgroup.com/ways-of-banking/branches
Date of Board meeting in which the FP is intended to be considered	
Date of accredited entity's Board meeting	N/A
Date of GCF's Board meeting	Wednesday, March 25, 2026

Note: This form was prepared by the accredited entity stated above.

Independent Technical Advisory Panel's assessment of FP292

Proposal name:	Scaling climate-smart solutions for hardest-to-reach MSMEs and farmers in Kenya (CST Facility)
Accredited entity:	KCB Bank Kenya Limited
Country(ies):	Kenya
Project/programme size:	Medium

I. Assessment of the independent Technical Advisory Panel

1.1 Overview

- Development problem exacerbated by climate change.** The development trajectory is currently impeded by a climate-economic feedback loop; the country's heavy reliance on a climate-sensitive agricultural sector and agro-based manufacturing creates a direct conduit for environmental shocks to destabilize the national economy. Given that agriculture employs 40 per cent of the workforce and contributes to 20 per cent of the national gross domestic product, and that 98 per cent of production remains rain-fed, seasonal weather variability becomes a systemic threat to social stability. Such vulnerability to climate change is further compounded by geography, because more than 80 per cent of the country's landmass consists of arid and semi-arid lands (ASALs), where marginalized pastoralist communities bear the brunt of climate extremes.
- The impacts are already measurable and severe; climate-related disasters account for 70 per cent of natural hazards affecting Kenya, draining an estimated 3 per cent of the national gross domestic product annually. Recent events (i.e. drought in 2022 and the devastating 2024 floods) have demonstrated how these shocks trigger a poverty trap by decimating maize production, drowning livestock, and forcing vulnerable households into harmful coping strategies (e.g. withdrawing children from school or selling productive assets). Climate change acts as a threat multiplier in Kenya, not only causing immediate economic loss but fundamentally eroding the long-term resilience and adaptive capacity of the rural poor.
- Vulnerability Cluster Framework: a targeted approach.** To help resolve the systemic climate development crisis in Kenya, the proposed programme employs the Vulnerability Cluster Framework, a data-driven classification that aligns financial resources with the geographic reality of climate risk. Applying the Intergovernmental Panel on Climate Change definition of climate risk factors, all 47 counties in Kenya are assessed based on their exposure (hazard frequency), sensitivity (economic dependence on rain-fed resources), and adaptive capacity (socioeconomic resilience). This analysis allows the 47 counties in Kenya to be structured into three strategic clusters, which will guide the Climate-Smart Technology (CST) Facility:¹
 - Cluster 1 (High Vulnerability). This comprises 19 counties that are primarily arid and semi-arid lands (ASALs) like Turkana and Garissa; this cluster faces the most extreme

¹ See funding proposal term sheet annex 3: Eligibility criteria for sub-borrowers, guarantee-eligible sub-loans and grant beneficiaries, section B.

climate shocks and receives 50 per cent of the Facility's resources. Proposed interventions here are designed to counter severe biophysical risks, such as utilizing solar-powered water pumps to sustain pastoral livelihoods;

- (b) Cluster 2 (Medium Vulnerability). There are 15 transitional counties like Busia and Kericho; this cluster receives 40 per cent of the allocation to protect vital dairy and cash crop sectors from shifting weather patterns; and
- (c) Cluster 3 (Low Vulnerability): The cluster of 13 resilient highland and urban counties (e.g. Nakuru and Nairobi) acts as an anchor for the programme with a 10 per cent allocation; this focuses on scaling agri-processing and high-value value chains through existing financial infrastructure.

4. **Objective.** The objective of the proposed programme is to strengthen climate resilience, increase food and water security, and reduce greenhouse gas (GHG) emissions among the most vulnerable micro, small and medium-sized enterprises (MSMEs) and farmers in Kenya by: (i) expanding access to affordable, tailored credit products and longer-tenure finance for climate-smart investments; (ii) increasing CST adoption by strengthening climate impact assessment and building capacity of KCB Bank Kenya Limited (KCB) loan officers, CST suppliers and end-beneficiaries; and (iii) building institutional capacity, partnerships, and knowledge systems to scale CST uptake nationwide through training, policy support and market linkages.

5. **Programme structure and breakdown.** The programme's objective will be achieved through the following components, outputs and activities.

6. Component 1 will focus on the establishment of a dedicated blended finance CST Facility (output 1.1) with derisking tools (output 1.2) for direct lending to MSMEs and farmers through the KCB Kenya network and digital solutions. The proposed activities are:

- (a) Output 1.1: (i) establishing an inclusive CST Facility (Activity 1.1.1); (ii) on-lending to MSMEs and farmers with concessional terms (activity 1.1.2); and (iii) use of the improved Climate Assessment for Financial Institutions (CAFI) tool and GHG tracking systems to measure mitigation outcomes and adaptation results (activity 1.1.3); and
- (b) For the deployment of a risk mitigation mechanism for CST (output 1.2), the subactivities will entail the leveraging of a USD 20.31 million guarantee from GCF to underwrite the adaptation CST Facility loans for the most vulnerable MSMEs, farmers and women in Cluster 1 and Cluster 2 (activity 1.2.1).

7. Component 2 will focus on the strengthening of climate impact assessment and enabling CST uptake. This will be done via:

- (a) Strengthening within KCB of the climate impact and risk assessment framework (CIRAF) and promoting it across the banking sector in Kenya (output 2.1). The activities here are: (i) enhancing the CAFI tool for climate impact and risk assessment for evaluating climate risks and CST eligibility in KCB operations (activity 2.1.1); (ii) training KCB personnel and agents to apply climate risk assessment frameworks and the CAFI tool for financing decisions, ensuring effective deployment of CST-linked credit lines (activity 2.1.2); (iii) integrating digital lending solutions for CST in KCB platforms (activity 2.1.3); and (iv) identification and development of mechanisms to address the credit risk of the CST portfolio throughout the programme implementation period (activity 2.1.4); and
- (b) Promotion of CSTs through establishing a system for climate information dissemination, capacity-building and improved market linkage (output 2.2). This will be done via: (i) providing technical assistance to MSMEs, farmers and local authorities to support CST adoption, promoting youth participation (activity 2.2.1); (ii) strengthening market linkages and partnerships (activity 2.2.2); and (iii) identification, assessment and, where

feasible, integration of existing donor-funded initiatives within Cluster 1 and Cluster 2 into project implementation, with a view to supporting pipeline development, strengthening community engagement and reducing systemic climate risks, including through early drought and flood detection and early-warning systems (activity 2.2.3).

8. Component 3 will focus on institutional capacity, partnerships and knowledge systems for scaling up CST adoption. This will be accomplished via:
- (a) Strengthening institutional capacity for origination of equitable CST financial products to scale up CST adoption (output 3.1). Activities here will be as follows: (i) collaboration with financial institutions and market actors to originate tailored, equitable CST credit products that scale up access to finance for the most underserved MSMEs and farmers (activity 3.1.1); and
 - (b) Enhancing knowledge systems and collaboration for CST uptake and climate impact tracking (output 3.2). Activities here will be: (i) Knowledge dissemination on the CST Facility, climate impact data collection and information management (activity 3.3.1); (ii) facilitation of engagement with financial market actors to institutionalize CST credit products, and alignment of climate impact assessment practices in line with CBK initiatives (activity 3.2.2).
9. **GCF funding requested.** Following the ITAP submission of assessment for English editing on 16th February 2026, the GCF Secretariat informed iTAP that KCB Bank Kenya Limited was unable to secure an additional USD 15 million in co-financing, resulting in a reduction of their senior loan commitment from USD 65 million back to USD 50 million². Consequently, the total loan facility has been downscaled from USD 80 million to USD 65 million, while the total GCF request has been adjusted to USD 43.58 million, which includes a reduced guarantee of USD 20.31 million to maintain a 34.72% coverage ratio. Senior loans for the establishment of the CST Facility are USD15,000,000. Up to USD 8,273,000 are to be disbursed by GCF as non-reimbursable funds, in the form of grant, for the financing of Activities 2.1.1, 2.1.2, 2.1.3, 2.2.1, 2.2.2, 3.1.1, 3.2.1, and 3.2.2 under Components 2 and 3, as well as for the financing of programme costs associated with implementation of the Gender Action Plan, monitoring and evaluation, environmental and social safeguards (ESS) and project management costs.³ Up to USD 20,311,231 are to be disbursed by GCF as guarantee funds, for the financing of activity 1.2.1 under Component 1 (“GCF Guarantee”).
10. The accredited entity (AE), KCB, will provide the following co-financing from its own resources for the implementation of the programme: USD 50,000,000 will be in the form of senior loans for the financing of Activities 1.1.1, 1.1.2, and 1.1.3 under Component 1 (“KCB Loan”); USD 3,063,000 will be in the form of in-kind grant, for the financing of Activities 2.1.3, and 3.2.2 under Components 2 and 3 as well as for the financing of programme costs associated with implementation of ESS and project management costs detailed in annex 4: Detailed budget of the funding proposal (“KCB Grant”).

1.2 Impact potential

Scale: Medium to high

11. **Adaptation impact.** Initially, the CST Facility programme is designed to reach 915,261 total beneficiaries, comprising 109,697 direct and 805,564 indirect individuals, strategically focused on the most climate-vulnerable populations of Kenya. However, given the decreased funding available, reach is projected to decrease from 915,261 to approximately 743,650 individuals with direct beneficiaries now totalling 89,129 individuals (down from 109,697), and

² See email message from GCF Secretariat (dated 19 February 2026) stating that “KCB informed us that they were unable to secure the additional US\$ 15M to increase their co-financing from US\$ 50M to US\$ 65M.”

³ See funding proposal annex 4: Detailed budget of the funding proposal.

654,521 indirect beneficiaries (down from 805,564). Despite these lower numbers, the commitment to allocate 50% of resources to Cluster 1 and 40% to Cluster 2 remains, ensuring that the most climate-vulnerable segments in ASAL counties are still the primary focus. This targeted reach includes smallholder farmers and MSMEs in high-risk Cluster 1 and Cluster 2 counties, segments that are currently excluded from structured finance due to extreme climate-driven credit risks. The provisioning of affordable climate-linked financing (i.e. lower rates and longer tenors), combined with tailored technical assistance, enables the project to directly strengthen the adaptive capacity of climate vulnerable agricultural value chain livelihoods. These features will also monitor a comprehensive suite of metrics that track real-world resilience (e.g. yield stability improvements, reduced post-harvest losses, and improved water availability). This two-pronged strategic intervention, integrating 53 per cent of the facility to micro-enterprises and farmers and 47 per cent to small and medium-sized enterprises (SMEs) ensures that critical climate-smart technologies reach both grassroots producers and essential value chain actors, thereby fostering an inclusive, resilient ecosystem that maximizes the dollar cost for adaptation impact across underserved regions.⁴

12. **Mitigation Impact.** The proposed project is expected to achieve a significant cumulative mitigation impact by avoiding a total of 5,395,770 (down from 6,640,948) tonnes of carbon dioxide equivalent (t CO₂ eq) over a 15-year period. This revised impact, adjusted proportionately to the down scaled USD 65M facility is primarily driven by interventions in Mitigation Result Area 3, which accounts for the vast majority of the reductions approximately 5,175,132 (down from 6,370,132 t CO₂ eq) through a diverse portfolio of waste-to-energy and clean thermal solutions. Key contributors within this area include the deployment of portable biodigesters, which alone are expected to mitigate 2,591,655 (down from 3,189,729) t CO₂ eq by year 15, and biocomposting initiatives contributing 987,881 (from 1,215,854) t CO₂ eq. Additionally, Mitigation Result Area 1, focusing on solar powered appliances and industrial applications, is set to contribute 220,038 (from 270,816) t CO₂ eq. The project demonstrates a consistent scaling of impact, growing from an initial 365,513 (from 449,862) t CO₂ eq at the mid-term (year 2.5) to a robust long-term reduction that supports the transition of Kenya towards a low-carbon economy.

1.2.1. Risk to impacts

13. The proposed project may face a hurdle in Clusters 1 and 2 due to limited digital reach, primarily driven by last-mile infrastructure gaps and low digital literacy among MSMEs and smallholder farmers. In high-vulnerability ASALs, the lack of stable internet, mobile coverage, and electricity creates a physical barrier to the adoption of mobile banking and digital onboarding. Beyond infrastructure, these communities often face a trust deficit and documentation hurdles, which are compounded by a lack of familiarity with digital financial tools.⁵

14. However, the CST Facility is also mindfully designed on how to address this challenge of limited digital reach. In regions where last-mile connectivity and mobile coverage are sparse, the initiative mitigates barriers through a robust on-the-ground agent network and strategic partnerships with the local savings and credit cooperative organizations; this will hopefully help facilitate physical-to-digital onboarding and foster community trust. This approach is bolstered by a specialized Technical Assistance Facility that explicitly integrates digital literacy training into its capacity-building packages, ensuring that even marginalized borrowers can navigate simplified digital application processes. By blending digital platforms with localized human

⁴ See funding proposal annex 24a: KCB CST beneficiary estimation methodology.

⁵ See funding proposal annex 2: Feasibility baseline and market assessment for CST.

support, the programme transforms technical and socioeconomic hurdles into a scalable pathway for climate-informed financial inclusion.

15. The independent Technical Advisory Panel (iTAP) assesses the impact potential of KCB CST as medium to high.

1.3 Paradigm shift potential

Scale: High

16. **Climate-smart finance as a catalyst for market transformation.** The proposed programme seeks to initiate a paradigm shift by institutionalizing a pioneering, blended climate finance facility within largest banking network of Kenya away from the currently inaccessible and unaffordable finance markets. The planned establishment of a dedicated CST Facility enables KCB to reconfigure commercial lending through a risk-based pricing framework and digitized climate-linked loans that embed real-time impact metrics (e.g. GHG emissions avoidance and farm yield improvements) directly into core credit systems. This transformative design will also ensure inclusivity via gender-responsive resource allocation and a resilience taxonomy that replaces generic assumptions with auditable, data-driven accountability, thereby operationalizing national green finance strategies in Kenya and the climate-risk disclosure frameworks of the Central Bank. Through enhanced sector-wide collaboration via the Kenya Bankers Association (KBA), the programme will hopefully provide a demonstrated, scalable blueprint for at least ten domestic financial institutions to replicate these innovations while utilizing dynamic environmental and social risk monitoring to profitably serve the hardest-to-reach segments. Among the key transformative features of the CST Facility are:

- (a) **Fit-for-Purpose CST Facility for climate vulnerable stakeholders and sectors.** The programme seeks to establish a dedicated CST Facility within KCB (the country's largest banking network). The proposed CST loan design seeks to introduce best practices in commercial lending, focusing on a risky climate-integrated financial ecosystem that ensures climate-resilient technologies reach the most marginalized groups while maintaining institutional bankability. The core elements of this approach include:
- (i) **Climate-linked loans.** The funding proposal envisions that every subloan will be digitized and tagged with specific climate smart technology types and impact classifications from the outset. This innovation will allow the KCB to embed real-time mitigation and adaptation metrics (e.g. GHGs avoided, hectares under resilient management, improved farm yields) directly into core credit appraisal and performance tracking systems;
 - (ii) **Risk-based pricing framework.** The planned implementation of a shift from uniform interest rate reductions to a risk-based pricing framework reflects a sophisticated market transformation; KCB will move away from "one-off" subsidies towards an institutionalized model that peer banks can replicate;⁶ and
 - (iii) **Targeted stakeholder and gender-responsive resource allocation.** The programme will apply a climate vulnerability index to map out vulnerable MSMEs and farmers and match it with appropriate climate solutions. The programme plans to utilize the CST screening tool to apply specific inclusion parameters at the point of origination. This will ensure that resource flows are prioritized for women-led and youth-led enterprises, particularly in high-vulnerability geographies (Clusters 1 and 2).
- (b) **Operationalizing resilience taxonomy.** The planned development of the CAFI-based taxonomy that will be complemented by internal climate risk stress testing will enable

⁶ See accredited entity and iTAP responses to Question 3.

KCB to demonstrate a more rigorous approach to resilience. This will replace vague or generic business-as-usual assumptions with auditable data-driven accountability, providing a scalable blueprint for other domestic financial institutions. By embedding climate-risk assessments (using CIRAF and CAFI) directly into KCB standard operating procedures, the programme will move beyond standard projects towards institutionalizing climate finance within a major commercial bank.⁷ This also enhances the operationalization of green finance taxonomy in Kenya;⁸

- (c) **Accelerated regulatory alignment.** KCB leadership in reporting aligned with the [Task Force on Climate-related Financial Disclosures](#), and its use of enhanced CAFI tools will directly aid in operationalizing the Central Bank of Kenya's initiatives for the sector (e.g. guidance on climate-related risk management and climate risk disclosure frameworks);⁹
- (d) **Enhanced sector-wide collaboration.** Through the KBA, the programme aims to train at least ten domestic financial institutions on CIRAF/CAFI and climate-risk scoring, ensuring that the project's innovations are replicated by peer banks like Equity and Absa .
- (e) **Dynamic risk monitoring.** The strategy will integrate real-time environmental and social risk monitoring aligned with the GCF revised Environmental and Social Policy approach; this includes automated alerts for compliance breaches and grievance redress mechanism red flags, ensuring that the "equity" element is actively managed throughout the life of the loan.

17. This transformative design establishes a scalable national model for domestic financial institutions to profitably serve the hardest-to-reach segments, while driving systemic climate action.

18. Overall, the paradigm shift potential is assessed as high.

1.4 Sustainable development potential

Scale: Medium to high

19. The CST Facility delivers substantial sustainable development potential by generating integrated environmental, social and economic co-benefits that align with the national priorities of Kenya and GCF investment criteria. Based on the revised total loan facility of USD 65 million following KCB's reduced co-financing, the projected co-benefits have been adjusted proportionately.

20. **Environmental and health co-benefits.** The programme will drive significant ecological improvements and public health outcomes, including: (i) climate mitigation from reduction of 5,395,770 t CO₂ eq over its lifetime; (ii) ecosystem services via placing 42,988 (down from 52,908) hectares under climate resilient management practices; (iii) sustainable resource management of approximately 76,354 (from 93,974) livestock units and 7,018 (from 8,638) tons of fish stocks; and (iv) public health through adoption of clean cooking for 89,999 (from 110,769) households, thereby helping reduce indoor air pollution and particle matter 2.5 exposure.

21. **Social and economic empowerment.** The programme will foster inclusive growth and food security in the most vulnerable regions of Kenya from: (i) job creation estimated at 473,496 (from 582,764) additional jobs; (ii) food security for over 646,975 (796,277) people (77,542 direct and 569,443 indirect beneficiaries); (iii) water security for approximately 133,905 (from 164,807) individuals who will benefit from more climate-resilient water

⁷ See accredited entity and iTAP responses to Question 4.

⁸ See funding proposal annex 2: CST Facility KCB feasibility baseline and market assessment for CST.

⁹ See funding proposal annex 2: CST Facility KCB feasibility baseline and market assessment for CST.

systems; and (iv) economic leverage with a 1: 1.22 (from 1:1.41) mobilization ratio, thus enabling the programme to leverage USD 53.06 million in private capital co-financing.

22. **Gender sensitive development.** The programme prioritizes equity through a gender responsive financial architecture via: (i) tailored financial products and capacity-building specifically for women-led MSMEs, female farmers, and pastoralists; and (ii) accountability, given that inclusion is ensured through gender-disaggregated tracking and safeguards to promote women's leadership in climate adaptation.

23. **Summary of contribution to the United Nations Sustainable Development Goals (SDGs).** Overall, the programme activities directly contribute to the following goals: SDG 2 (zero hunger), by enhancing food security for nearly 647,000 beneficiaries; SDG 3 (good health and well-being), through reduced indoor air pollution from clean cooking technologies; SDG 5 (gender equality), via targeted financial products and leadership opportunities for women; SDG 6 (clean water and sanitation), by providing resilient water security to over 133,000 individuals; SDG 8 (decent work and economic growth), through the creation of over 473,000 jobs; SDG 9 (industry, innovation, and infrastructure), by unlocking private capital for MSME and agricultural innovation; SDG 13 (climate action), through the reduction of 5.40 million t CO₂ eq and enhanced adaptive capacity; SDG 14 (life below water), by bringing 7,000 tons of fish stocks under sustainable management; SDG 15 (life on land), through the sustainable management of 43,000 hectares and 76,000 livestock units; and SDG 17 (partnerships for the Goals) via fostering multistakeholder collaboration across the banking sector.

24. Overall, the sustainable development potential is assessed as medium to high.

1.5 Needs of the recipient

Scale: High

25. **Systemic de-risking of the collateral barrier.** The programme will directly address the primary barrier identified by stakeholders, namely the lack of traditional collateral (e.g. land title deeds); which represent a significant hurdle for women, youth and arid and semi-arid land communities. Through the proposed establishment of a risk mitigation mechanism backed by a GCF guarantee, the project envisions a shift of the lending focus from physical assets to the viability of the climate technology itself; it is specifically designed to provide lower security requirements for direct lending through the KCB network, thus effectively bypassing the systemic exclusion caused by current land tenure issues in Kenya.

26. **Provision of affordable and patient capital.** The programme will leverage a blended finance model to provide concessional funding in recognition of high interest rates and the MSME's perceived risk of green investments. The CST Facility seeks to offer patient capital characterized by longer tenors and reduced costs, and tailored to the specific risk profiles of each cluster; it is hoped that such interventions will ensure that capital intensive technologies (e.g. solar-powered irrigation) can become financially viable for smallholders and MSMEs by matching repayment schedules with harvest cycles and increased income generation. Passing on concessionality through risk absorption and increased risk tolerance enables the facility to serve farmers and MSMEs in Clusters 1 and 2 segments that are currently credit-constrained due to high perceived risk.

27. **Bridging the technical and proof of concept gap.** The project seeks to integrate a robust market linkage and capacity-building component to address the risk of failure via a costly learning-by-doing approach, as well as the fear of technology obsolescence and problematic technology maintenance. Output 2.2 focuses on establishing CST proof of concept sites and creating local technology hubs to provide critical after-sale services and technical backstopping. By connecting technology suppliers directly with the hardest-to-reach MSMEs and farmers, the programme ensures that beneficiaries have the technical confidence and local support required to sustain their climate-smart investments.

28. **Institutionalizing gender and social inclusion.** The programme hopes to move beyond generic policies to address specific gender-based barriers, such as poor or limited access to financial resources. The risk mitigation mechanism is applied to all CST loans for women-led operations in Cluster 1, where food security risks and gender inequality indices are highest. The programme incentivizes financial actors to develop equitable loan pipelines, ensuring that women and youth are not just passive beneficiaries but are active participants in the climate-smart transition.

29. **Levelling geographical and informational barriers.** The programme seeks to overcome the high administrative costs of serving remote ASAL counties by utilizing the extensive KCB national branch network and integrated digital solutions. This geographical barrier is addressed through a community and cooperative scale approach through digital tools to facilitate bulk technology supply and direct lending. The timely dissemination of climate impact data and information through trusted local channels will hopefully bridge the information gap that currently prevents the most vulnerable populations from accessing formal climate finance.

30. Overall, the needs of the recipient is assessed as high.

1.6 Country ownership

Scale: Medium to high

31. Kenya is expected to demonstrate robust country ownership by integrating the CST Facility into its foundational climate architecture and leveraging its premier national financial institution to drive implementation; the programme will be a strategic execution of the country's sovereign climate and economic goals, rather than an isolated intervention.

32. **Strategic alignment with national priorities.** The programme seeks to become a direct implementation tool for the updated nationally determined contribution of Kenya, which targets a 32 per cent GHG reduction by 2030. The programme's planned focus on climate-smart agriculture, renewable energy and circular waste management will hopefully enable the Facility to operationalize specific country priorities under the national adaptation plan for 2015–2030 and Vision 2030; the programme will specifically address the aim of the national adaptation plan to strengthen financial resilience and climate-proof the agricultural sector, ensuring that the project is anchored in the Kenya GCF Country Programme coordinated by the National Treasury. The KCB tools (e.g. Composite Vulnerability Index) and national hazard maps ensure that the project will remain aligned with specific local climate data and national adaptation priorities for Kenya.¹⁰

33. **Credible and professional institutional capacity of KCB.** The programme uses KCB's position (as a publicly listed financial institution having a broad base of institutional investors such as the Government of Kenya) and a leading KBA member to ensure the CST Facility will align with the broader GCF portfolio in Kenya and national development interests.¹¹ KCB will provide the institutional backing required for nationwide delivery. With over 1.1 trillion Kenya shillings (K Sh) in assets, KCB possesses the financial stability necessary to manage a large-scale blended finance facility. KCB has a documented history of success in sustainable finance, including green loans for renewable energy and energy efficiency; this expertise led to its selection by the International Finance Corporation to scale green lending in Kenya. KCB's extensive nationwide network will enable the programme to penetrate rural and underserved areas, ensuring that financial inclusion reaches the hardest-to-reach MSMEs and farmers who are most vulnerable to climate shocks. KCB capacity is bolstered by its established relationships with government ministries, financial regulators and technology providers, ensuring long-term

¹⁰ See accredited entity and iTAP responses to Question 4.

¹¹ See accredited entity and iTAP responses to Question 5 (partnership and coordination).

programme sustainability. The demonstrated professionalism and technical capacity of KCB during meetings between the accredited entity and iTAP, and the written responses, give the iTAP comfort and confidence on their over-all capacity to deliver.

34. **Inclusive ownership and stakeholder engagement.** Ownership extends beyond government to the grassroots through a multi-stakeholder model. The facility is co-designed with civil society organizations, farmer cooperatives, and Indigenous communities to ensure transparent governance and inclusive decision-making. The prioritization of women and youth entrepreneurs will ensure that climate finance hopefully reaches the most vulnerable populations, fostering locally owned and impactful climate action. The inclusion of the KBA in the Programme Steering Committee will demonstrate deep engagement with the private financial sector. The project design was informed by extensive consultations with county governments, civil society organizations and Indigenous elders in high-risk zones like Turkana and Kilifi; there is already operational collaboration with the Kenya Meteorological Department (KMD) and National Drought Management Authority (NDMA)¹² in support of climate information integration, early-warning delivery, and borrower-level advisories.

1.6.1 Risk to country ownership.

35. Despite these strengths, KCB's inability to secure the originally proposed level of co-financing, resulting in a reduction from USD 65 million to USD 50 million shows some underlying weakness in support of this project; shortfall may suggest a potentially weaker than expected appetite or participation from local financial stakeholders and institutional investors to fully commit the capital necessary for the project's original scale. While the strategic and technical foundations are robust, the difficulty in raising the full domestic co-financing component indicates that mainstreaming these risky climate-integrated financial products still faces some internal market hurdles and requires more substantial local buy-in to achieve its maximum potential.

36. Overall, the country ownership is assessed as medium to high.

1.7 Efficiency and effectiveness

Scale: Medium to high

37. The proposed CST Facility is envisioned to become a highly effective and efficient intervention, structured to maximize climate impact per dollar invested in the most underserved markets in Kenya. Despite a reduction in KCB's senior loan co-financing from USD 65 million to USD 50 million¹³, the design still adopts fit-for-purpose financial engineering solutions, precision targeting and institutional mainstreaming to ensure both transformational outcomes and long-term sustainability. The adjusted blended finance structure will continue to maximize leverage and impact through the following project features:

- (a) **Climate-linked loan terms.** Innovation will be demonstrated by linking climate metrics directly to loan conditions. GCF concessionality is passed on through risk absorption, allowing interest rates to drop from unserviceable levels (>30 per cent) to ~18 per cent per annum, while extending tenors up to five years to align with the economic life of CST assets;
- (b) **Risk-tailored concessional capital.** The programme's core USD 65 million lending facility will combine a USD 15 million GCF concessional loan with USD 50 million in senior debt from KCB and further derisked by a USD 25 million GCF guarantee instrument; this will neutralize the extreme credit risk (21–25 per cent probability of

¹² See accredited entity and iTAP responses to Question 5 (partnership and coordination).

¹³ See email message from GCF secretariat (dated 19 February 2026) stating that "KCB informed us that they were unable to secure the additional US\$ 15M to increase their co-financing from US\$ 50M to US\$ 65M."

default) in the target Clusters 1 and 2, thus enabling KCB to enter in and develop risky markets where commercial lending is currently non-existent;

- (c) **Operational efficiency and cost-effectiveness.** The programme will demonstrate value for money but with a lower co-financing mobilization ratio (GCF:co-financing) of 1: 1.22 (down from the initial 1:1.41). Due to a reduced loan volume, it is expected to still achieve a competitive cost of impact at USD 4.3 t CO₂ eq reduced (up from the initial 3.49 per t CO₂ eq) and a USD 33.60 per beneficiary (up from USD 27.45) thereby still efficiently delivering mitigation and resilience; and
- (d) **Justified concessionality to make loans affordable and accessible.** Concessionality will be strategically tailored via the KCB risk-based pricing framework; this will move away from business as usual subsidy approaches. A transparent, auditable mechanism with mandatory disclosure and independent verification will ensure GCF benefits directly reach target beneficiaries.

38. The elements of precision targeting via localized climate intelligence which ensures impact relevance will be as follows:

- (a) **Data-driven targeting.** Effectiveness will be ensured through the deployment of an Intergovernmental Panel on Climate Change-aligned composite vulnerability index across all counties. The composite vulnerability index will precisely identify 19 highest-risk counties (Cluster 1) for intervention based on exposure, sensitivity and adaptive capacity;
- (b) **Reliance and integration of local climate data.** Collaboration with KMD and NDMA will feed real-time, localized climate data directly into the KCB digital lending platforms; this will ensure financing (e.g. for solar irrigation or cold storage) is directed where climate hazards like heat stress and erratic rainfall are most acute, optimizing adaptation benefits; and
- (c) **Automated technology screening.** The proposed introduction and use of a pre-validated green list of technologies and an automated CST screening tool will direct funds to the most impactful interventions; this will minimize costly bespoke studies for each micro loan, and maintain high operational efficiency.

39. Institutional mainstreaming and risk management will catalyse MSME and farmer finance sector-wide changes, thus contributing to effectiveness and efficiency as follows:

- (a) **Operationalizing climate into banking processes.** The programme seeks to effectively upgrade climate risk-informed decisions within KCB by enhancing KCB's proprietary CIRAF and CAFI; these tools will screen for GHG emissions, as well as maladaptation, and ensure technology suitability, making climate-informed lending a core, sustainable banking function;
- (b) **Strategic portfolio risk balancing.** The facility will smartly balance effectiveness with financial sustainability. While the GCF guarantee unlocks lending in non-bankable Clusters 1 and 2, a limited portion (≤ 10 per cent) of the subloan portfolio is allocated to the more bankable Cluster 3; this will ensure overall portfolio stability and demonstrate a viable business model for serving the hardest-to-reach;
- (c) **Catalysing market-wide replication.** Through leadership in reporting aligned with the [Task Force on Climate-related Financial Disclosures](#), and planned training for at least ten domestic financial institutions via the KBA, the programme is designed to replicate its innovations (i.e. CIRAF/CAFI, risk models) across the sector, multiplying the impact of GCF investment;
- (d) **Integrated technical assistance for derisking underlying subproject activities.** The technical assistance facility will directly derisk the loan portfolio by providing essential

non-financial support (e.g. training borrowers on CST maintenance, vetting technology suppliers and strengthening market linkages to stabilize demand); this will increase repayment probability and the long-term success of investments; and

- (e) **Building a self-sustaining ecosystem.** The technical assistance facility will strengthen the broader market by establishing vendor accreditation, maintenance hubs and demand linkages; this ecosystem development will ensure that the supply chain and knowledge persist beyond the project, enabling a self-sustaining market for CSTs.

40. **Building blocks for long-term sustainability of the CST Facility.** All the project initiatives, ranging from the operationalization of KCB proprietary CIRAF tools to the strategic training of domestic financial institutions via the KBA will serve as essential building blocks for long-term sustainability. Strengthening value chains through technical assistance, and establishing a self-sustaining ecosystem of accredited vendors, will ensure that low-carbon and climate-resilient development in these emerging markets remain a core, commercially viable banking function of the CST Facility long after the initial investment.

41. As mentioned under section 1.2.1, the efficiency and effectiveness of the programme implementation may be constrained by the challenges in digital infrastructure as well as literacy.

42. Given the above, the project's efficiency and effectiveness are rated as medium to high.

II. Overall remarks from the independent Technical Advisory Panel

43. Based on the above assessment, the iTAP recommends that the Board approve this funding proposal.

44. In support of this recommendation, and based on the AE's responses and commitments to address the technical and methodological gaps identified by the iTAP, the following recommendations to KCB are formulated to promote the programme's successful implementation and climate integrity. These recommendations support each of the project components (i.e. 1, 2 and 3), as well as complement and elaborate on the conditions and covenants stated in the draft Term Sheet, to promote the programme's successful implementation and climate integrity.

- (a) **Update of FP and relevant annexes.** The AE should submit an updated FP and set of relevant annexes to reflect the changes that may arise as a result of change in financing amounts from USD 80.0M down to USD 65.0M¹⁴.
- (b) **Update of the Operations Manual.** The AE should submit an updated annex 21B (CST Loan Facility Operations Manual) and associated technical annexes that institutionalize a climate-informed decision-making process. The iTAP recommends addressing the following aspects in the manual:
- (i) Technical suitability and resilience standards, integrating a technology suitability matrix comparing CST options based on GHG reduction potential and reliability during extreme weather;
 - (ii) Climate-informed financial appraisal that threats that factors adaptation to climate change into the financial decision; and

¹⁴ See email message from GCF secretariat (dated 19 February 2026) stating that "KCB informed us that they were unable to secure the additional US\$ 15M to increase their co-financing from US\$ 50M to US\$ 65M."

- (iii) Finalization of CST appraisal checklists and supplier accreditation criteria;
- (c) When strengthening the climate impact and risk assessment framework, the AE should consider addressing the following aspects:
 - (i) Better integration of physical climate risk information from the KMD and NDMA directly into lending decisions and the digital loan-origination workflow;
 - (ii) As far as possible, promote the development of the capability to move from generic financial buffers to hazard-based stress testing; and
 - (iii) Use of the enhanced framework to adjust "Expected Asset Life" and depreciation schedules in Cluster 1 to reflect higher probabilities of premature failure or asset destruction due to extreme events; and
- (d) For facilitating proactive borrower support and market resilience and the effectiveness of the technical assistance facility:
 - (i) Promote localized climate advisories that systematize the translation of raw meteorological data into practical, actionable borrower-friendly guidance via digital channels and capacity-building sessions, ensuring farmers can optimize planting windows and irrigation timing;
 - (ii) Secure adaptive credit structuring by embedding climate shock response measures or mechanisms into loan agreements, such as automated triggers for grace periods or repayment sculpting (restructuring) when verified climate alerts are received from KMD/NDMA, rather than waiting for a net-realized-loss default, and
 - (iii) Consider expanding the use of impact metrics, by tracking CST-level resilience performance metrics within CIRAF, including indicators for reduced or avoided production losses under climate variability and percentage of beneficiaries with improved adaptive capacity.

Response from the accredited entity to the independent Technical Advisory Panel's assessment (FP292)

Proposal name:	Scaling climate-smart solutions for hardest-to-reach MSMEs and farmers in Kenya (CST Facility)
Accredited entity:	KCB Bank Kenya Limited
Country(ies):	Kenya
Project/programme size:	Medium

Impact potential

The iTAP assessment is noted with thanks. KCB Bank appreciates the favourable review of the impact potential assessment of the Programme.

However, it is necessary to state that the reference to KCB Bank being “unable to secure” additional co-financing does not accurately reflect the Bank’s position. The adjustment of the senior loan commitment from USD 65 million to USD 50 million was a strategic and deliberate decision, not a constraint in capital mobilization capacity. The decision optimizes the capital structure to maintain balance sheet discipline, risk appetite alignment, and proportionality between concessional and non-concessional funding.

Paradigm shift potential

The iTAP assessment is noted with thanks. KCB Bank appreciates the favourable review of the paradigm shift potential assessment of the Programme

Sustainable development potential

The iTAP assessment is noted with thanks. KCB Bank appreciates the favourable review of the sustainable development potential assessment of the Programme. However, again the reference to “reduced co-financing” should be clarified. The adjustment in the overall facility size reflects a deliberate structuring decision by KCB to optimize proportionality between concessional and non-concessional capital, rather than a reduction in commitment or capacity. While the total facility size was revised, the core design, sectoral focus, and implementation approach of the CST Facility remain unchanged.

Needs of the recipient

The iTAP assessment is noted with thanks. KCB Bank appreciates the favourable review of the needs of the recipient assessment of the Programme

Country ownership

The iTAP assessment is noted with thanks. KCB Bank appreciates the favourable review of the country ownership assessment of the Programme. However, the interpretation that the adjustment in facility size reflects an inability to secure co-financing or a weaker-than-expected appetite from local financial stakeholders does not accurately reflect the Bank’s

position or market dynamics. The revision from USD 65 million to USD 50 million was a deliberate balance-sheet and risk-management decision by KCB, taken to maintain prudent capital allocation, portfolio concentration discipline, and proportionality between concessional and non-concessional funding.

Efficiency and effectiveness

The iTAP assessment is noted with thanks. KCB Bank appreciates the favourable review of the efficiency and effectiveness assessment of the Programme. However, for clarity, the revision in facility size does not alter the effectiveness, efficiency, or transformational intent of the intervention. The CST Facility continues to be deliberately structured to maximize climate impact per dollar deployed, particularly in underserved markets, through targeted financial engineering, disciplined risk-sharing, and strong institutional integration.

Overall remarks from the independent Technical Advisory Panel:

KCB Bank appreciates the constructive review, and thanks iTAP for the recommendations provided, which are aligned with the Programme's objectives.

Gender and Social Inclusion Assessment Report for
Programme

*“Scaling climate-smart solutions for hardest-to-reach
MSMEs and farmers in Kenya (CST Facility)”*

Submitted to:



On behalf of



Submitted by:



August 2025 (updated November 2025)

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Executive summary

Micro, Small, and Medium Enterprises (MSMEs) are pivotal to Kenya's economic development, contributing approximately 40% to the national GDP and providing employment to nearly 15 million people. Despite their significance, women, youth, and persons with disabilities (PWDs) remain underrepresented and face systemic barriers, particularly in accessing finance, technology, and leadership opportunities within MSMEs. This report presents the findings of a comprehensive Gender and Social Inclusion (GESI) assessment conducted to inform the design and implementation of gender-transformative initiatives within the Programme. The primary purpose of the assessment was to identify gender-specific needs, gaps, and challenges affecting equitable adoption of CSTs among women, youth, and marginalized groups, thereby promoting inclusive and sustainable climate-smart business solutions supporting MSMEs.

The study investigates barriers to Gender, Economic, and Social Inclusion (GESI) by examining the policy and institutional context at both national and international levels, highlighting gaps in regulatory frameworks and implementation that hinder equitable access to climate-smart technologies. It critically assesses how existing policies support or falls short in promoting the inclusion of women, youth, and persons with disabilities in climate-resilient economic activities. Chapter Five presents a comprehensive summary of fieldwork findings collected through mixed methods, including participatory approaches, key informant interviews (KIIs), household surveys, and focus group discussions (FGDs), conducted in the six counties of Turkana, Narok, Kajiado, Garissa, Nakuru and Nairobi. These counties face intersecting climatic, environmental, and socio-economic vulnerabilities, where the Programme is poised to make a significant positive impact by enhancing resilience and fostering inclusive sustainable development.

Acronyms

AGPO	Access to Government Procurement Opportunities
ASAL	Arid and Semi-Arid Lands
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CST	Climate Smart Technologies
CSTF	Climate Smart Technologies Facility
FGD	Focus Group Discussion
FIDA	Federation of Women Lawyers
FSD	Financial Sector Deepening
GBV	Gender-Based Violence
GCF	Green Climate Fund
GDP	Gross Domestic Product
GESI	Gender Equality and Social Inclusion
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IFC	International Finance Corporation
IRR	Internal Rate of Return
KCB	Kenya Commercial Bank
KDHS	Kenya Demographic and Health Survey
KII	Key Informant Interview
KNBS	Kenya National Bureau of Statistics
MSEA	Micro and Small Enterprises Authority
MSME	Micro, Small and Medium Enterprises
NGEC	National Gender and Equality Commission
NPV	Net Present Value
OECD	Organization for Economic Co-operation and Development,
PWD	Persons with Disabilities
SDGs	Sustainable Development Goals
SGBV	Sexual and gender-based violence
UN Women	United Nations Entity for Gender Equality and the Empowerment of Women
VSLA	Village Savings and Loans Associations
WBL	Women, Business and the Law
WEF	Women Enterprise Fund
WHO	World Health Organisation
YEDF	Youth Enterprise Development Fund

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1 Introduction

1.1 Background

Gender and social inclusion are central to the success and sustainability of climate resilience initiatives targeting Kenya's Micro, Small, and Medium Enterprises (MSMEs). The Programme, led by KCB Bank Kenya Ltd (KCB) with support from the Green Climate Fund (GCF), seeks to transform the MSME sector by promoting the adoption of Climate Smart Technologies (CST). This Programme is a timely intervention, addressing urgent threats posed by climate change and the persistent inequalities that limit the full participation and potential of all entrepreneurs.

Kenya's MSME landscape is shaped by diverse social identities, with gender, age, ethnicity, and socio-economic status influencing access to resources, information, and opportunities. Despite their critical role in economic growth and community resilience, women and other marginalized groups often face systemic barriers, including entrenched stereotypes, limited access to finance, and exclusion from decision-making, that restrict their ability to adopt innovative technologies and scale their businesses.

This assessment recognizes that advancing production efficiency and business value through CST requires more than technical solutions; it demands a deliberate focus on dismantling social and gender-based barriers. By examining the beliefs, perceptions, and institutional practices that shape participation in the MSME sector, this gender and social inclusion assessment aims to inform the design and implementation of the Programme. The goal is to ensure that interventions are climate-smart, equitable, inclusive, and responsive to the needs and aspirations of all MSME actors.

The Programme represents an opportunity to address systemic barriers faced by women, youth, and marginalized groups in accessing climate-smart technologies, enabling equitable economic participation and resilience. By embedding gender-responsive strategies and strengthening institutional capacities, the program is well-positioned to promote inclusive growth within Kenya's vulnerable counties. Ultimately, this initiative sets a strong foundation for sustainable, climate-resilient development that benefits all members of society.

The MSMEs play a crucial role in global and local economic development. They create jobs, stimulate innovation, and provide essential goods and services to communities. Micro, Small, and Medium Enterprises (MSMEs) are cornerstones of most economies around the world. In 2016, MSMEs contributed about 40% to Kenya's Gross Domestic Product (GDP) and employed 14.9 million people (Kenya National Bureau of Statistics, 2016). Sustainable Development Goal 8 also

recognizes the vital role played by MSMEs in promoting inclusive growth, employment, and decent jobs. MSMEs have been prioritized as a key growth driver towards achievement of Kenya’s Vision 2030.

MSMEs are critical in promoting inclusive and sustainable economic growth however most are run by low-skilled and excluded persons like women, youths, and persons with disability (Kenya National Bureau of Statistics, 2016). Business operation is disrupted by low access to financial services, low financial literacy, social cultural norms and gender norms that prevent these marginalised groups from business expansion.

The FinAccess 2024 report highlights significant disparities in financial inclusion across age, gender, and regional lines. Among youth aged 18–25 years, only 69.1% have access to formal financial services, compared to over 90% of adults aged 26–55 years (Figure 1.1). Alarming, 23.1% of youth in this age group remain completely excluded from any form of financial access, with the majority residing in rural areas (FinAccess, 2024).

Regional differences are stark: financial access is significantly higher in urban areas (91.3%) compared to 80.3% in rural areas. Furthermore, a greater share of the rural population (7.2%) relies on informal financial services compared to 2.5% in urban areas. The overall financial exclusion rate is double in rural areas (12.6%) compared to urban areas (6.2%).

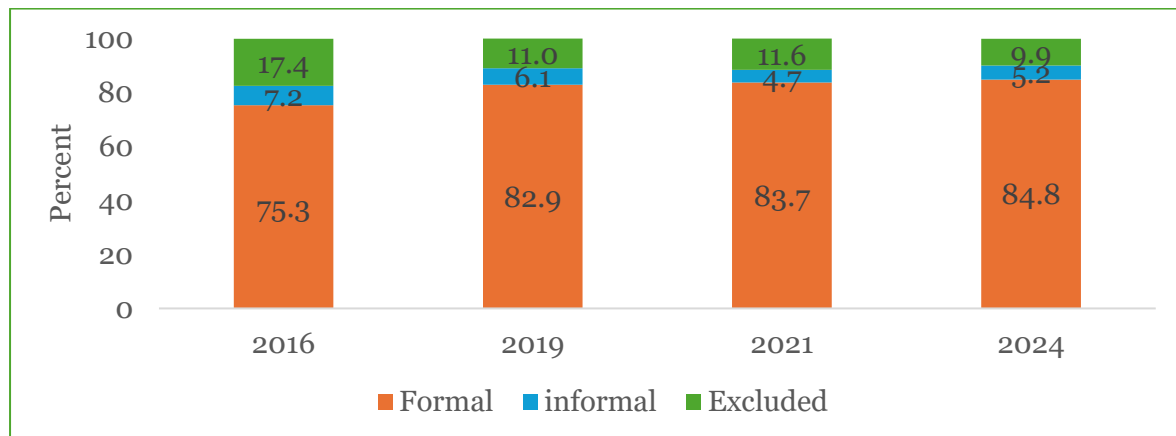


Figure 1.1: Access to financial services in the total population (Source: FinAccess Report, 2024)

On the gender front, progress has been made. The proportion of women with access to financial services increased from 71.2% in 2016 to 84.1% in 2024. However, men still maintain an edge, with 85.7% accessing financial services as of 2024. Notably, women continue to rely more on informal financial channels, 5.9% of women accessed informal finance in 2024, compared to 4.5% of men. For persons with disabilities (PWDs), financial inclusion stands at 77.9%, which is below the national average of 84.8%.

Gender-based disparities are also evident among Micro, Small, and Medium Enterprises (MSMEs). In 2016, only 32.2% of licensed MSMEs were owned by women, compared to 47.9% owned by men. Conversely, women owned 60.7% of all unlicensed enterprises, which further limits their ability to access formal financial services, including green finance.

Women-led MSMEs work in sectors with significant climatic exposure, often restricted to marginal and degraded agricultural lands that are prone to flooding and drought. Female-led businesses often have difficulty accessing funding from climate finance providers who may overlook smaller businesses in favour of investing in large-scale projects. Thus, a gender responsive approach to financing MSMEs particularly in climate smart technologies, is critical.

1.2 Programme background

The Programme, spearheaded by KCB Bank Kenya Ltd (KCB) and supported by the Green Climate Fund (GCF), aims to enhance production efficiency and business value through the adoption of Climate Smart Technologies (CST). Given the increasing challenges posed by climate change, the Programme seeks to integrate sustainable business practices while fostering the resilience of MSMEs. A core component of this initiative is the Climate Smart Technologies (CST) Facility, which provides tailored financial products and services to MSMEs. This facility is essential in scaling up CST adoption, ensuring that businesses can access transformative financing solutions, innovative climate risk assessment tools, and capacity-building support within hard-to-reach regions.

In line with KCB and GCF policies, incorporating gender considerations into formulation and implementation of this Programme is essential for achieving equitable and effective outcomes. Integrating gender perspectives allows the Programme to address the specific needs, gaps and challenges experienced by both men and women, fostering fairness and inclusivity. This approach contributes to more comprehensive and sustainable results and ensures that vulnerable and marginalized groups are actively engaged and benefit from gender-transformative climate action initiatives. Gender inclusion in the Programme will improve outcomes by:

- i. Making smart climate technologies and financial products more accessible and relevant to the target audiences.
- ii. Providing data to facilitate informed decision-making and enhance participation through clear targets and actionable steps.
- iii. Establishing best practices aligned with international frameworks on gender equality and women's empowerment.

The Gender and Social Inclusion Assessment for the Adoption of Climate Smart Technologies (CST) is aimed at helping the Programme to define and address the

specific needs, gaps and challenges faced by both men and women, fostering fairness and inclusivity. This approach contributes to more comprehensive and sustainable results and ensures that vulnerable and marginalized groups are actively engaged and benefit from gender-transformative climate action initiatives. This is aimed at enhancing production efficiency and business value of MSMEs.

1.3 Purpose and scope of the assessment

The purpose of this assessment was to conduct a Gender and Social Inclusion assessment aimed at informing the design and implementation of gender-transformative initiatives for the Adoption of Climate Smart Technologies (CST). Findings from the assessment were also used to develop a gender action plan to strengthen internal and partner capacity on gender and social inclusion. Specifically, the assessment captured:

- Gender and Social Inclusion Assessment – Identified gender-specific needs, gaps, and challenges in CST adoption to ensure equitable participation and benefits.
- Gender Action Plan in line with GCF requirements – Outlined actionable steps, targets, and resource allocation strategies for gender-responsive programming.
- Ensured gender-responsive strategies in CST adoption – Integrating inclusive approaches that enhance women's, youths, and marginalized groups' involvement in climate-smart business solutions.

1.4 Methodological approach

The study employed a mixed-method research design, combining both qualitative and quantitative approaches to ensure robust and triangulated findings. The data collection methods are outlined below:

1.4.1 Perception Surveys

Structured perception surveys were administered to gather first-hand insights from stakeholders on issues related to gender and social inclusion in climate-smart technologies (CST). These surveys captured both quantitative and qualitative perspectives and helped assess the awareness, attitudes, and challenges faced by different groups, particularly women, in accessing CST financing and support.

1.4.2 Participatory Exercises

Participatory methods were used to facilitate inclusive engagement with stakeholders, particularly at the community and MSME levels. These exercises enabled the research team to understand gendered experiences in real-time settings, identify context-specific barriers and enablers, and co-generate

knowledge with the participants. They also provided an interactive platform to explore stakeholder priorities and expectations around CST.

1.4.3 Key Informant Interviews (KIIs)

A total of 43 key informant interviews were conducted with a wide range of stakeholders to gather in-depth qualitative insights. Interviewees included:

- **KCB Foundation and KCB Group staff:** including bank managers, SME and retail banking officers, microcredit analysts, corporate and regulatory affairs professionals, and the safeguarding and GEDI manager.
- **Programme implementing partners:** involved in financing CST among MSMEs.
- **MSME business leaders:** to understand their experiences with CST access and gender considerations.
- **County-level policymakers:** particularly from Garissa and Turkana, which had the highest number of respondents (10 each).
- **National-level policymakers:** including representatives from the State Department for Water and Sanitation, The National Treasury and Economic Planning, and the State Department for Gender and Affirmative Action.

These interviews were instrumental in uncovering systemic, institutional, and operational barriers to gender inclusion.

Table 1.1: Distribution of key informant interviews conducted across counties

Respondent type	Kajiado	Garissa	Turkana	Nakuru	Narok	Nairobi	Total
Programme Implementer	1	2	1	1	1	6	12
Policy makers	0	0	2	0	0	5	7
Business Leaders	4	8	3	2	2	0	19
Development partners	0	0	2	2	0	1	5

Source: Survey, 2025

1.4.4 Desk Review of Secondary Data

A comprehensive desk review was undertaken to analyse relevant secondary data, including:

- **Policy documents and frameworks:** such as KCB Foundation policies, the Green Climate Fund (GCF) Gender Policy, and National Gender Equality frameworks.
- **Sectoral and project reports:** including previously conducted studies by partners and relevant literature on climate finance and CST.

This review was critical in:

- Contextualizing the gender and social inclusion assessment.
- Identifying policy and institutional gaps.
- Informing the design of data collection tools and stakeholder engagement processes.

The desk review also analysed legal frameworks and institutional processes related to gender mainstreaming in climate finance and climate-smart technology initiatives.

1.4.5 Focus Group Discussions (FGDs)

A total of **12 Focus Group Discussions** were conducted across **six counties**: Kajiado, Garissa, Turkana, Nakuru, Narok, and Nairobi. The FGDs were organized by **respondent type** to enable a more targeted and inclusive exploration of perspectives:

- **Women’s FGDs**: Held in Kajiado, Garissa, Turkana, and Narok (4 sessions)
- **Men’s FGDs**: Conducted in Kajiado, Turkana, and Nakuru (3 sessions)
- **Youth FGDs**: Conducted in all counties except Nairobi (5 sessions)

These sessions provided valuable qualitative data on gendered barriers, aspirations, and social dynamics around CST adoption and access to finance (see Table 1.2 for detailed distribution).

Table 1.2: Distribution of focus group discussions conducted across counties

Respondent type	Kajiado	Garissa	Turkana	Nakuru	Narok	Nairobi	Total
Women FGD	1	1	1	0	1	0	4
Men FGD	1	0	1	1	0	0	3
Youth FGD	1	1	1	1	1	0	5

Source: Survey, 2025

Survey data was collected across 23 counties and Nairobi had the highest representation of respondents (13.2%), Machakos at (11.3%), Turkana (10.1%) and Narok (9.4%). Other counties with notable representation include Kajiado (8.5%), Narok (9.4%), and Nakuru (8.8%). Counties such as Kirinyaga, Laikipia, Meru, Nyandarua, and Siaya had low representation at (0.31%). A total of 318 respondents were interviewed.

2 Kenya's Gender Outlook

This section provides information on gender gaps on poverty, labour market participation, education, and social cultural barriers to participation of women in MSMEs.

2.1 Economic context

The World Bank's World Employment and Social Outlook Report (2024)¹ shows that, globally, women's labour force participation rate is lower at 49.4% compared to their male counterparts at 76.1%, resulting in a gap of 26.7 percentage points as of 2017. Women also face higher unemployment rates (6.2%) compared to men at 5.5%. In Kenya, the female unemployment rate is at 4.8% compared to men at 2.2% (KNBS, 2022). Findings also show that women are more likely to work in low paying and unstable jobs. For example, nearly 15% of women are in unpaid family roles compared to 5.5% of men (World Bank, 2024). In terms of sector of employment, more women work in education, healthcare, and retail, which pay less, while men dominate higher-paying industries like construction and transportation. This perpetuates a gender pay gap, with women in some countries earning up to 40% less than men. Closing the gender gap has significant economic and social benefits. ILO estimates that, reducing the gender inequality in the workforce by just 25% by 2025, will increase the world's GDP by \$5.8 trillion and create 189 million jobs.

Kenya's pursuit of inclusive economic growth necessitates the equitable distribution of resources and opportunities. Gender equality is pivotal in achieving this inclusive growth and despite this, gender disparities are evident across various economic indicators. In terms of poverty, the KNBS (2024) reports that poverty rates are higher in female-headed households (35.6%) compared to male headed households (32.6%). The poverty rates are higher among female headed households residing in rural areas at 40.2% compared to their male counterparts where the poverty rates are at 37.2%. The inequality rates are also higher among female headed households at 0.414 compared to male – headed household with a Gini coefficient of 0.399. Differences in the labour market indicators are also pronounced. The female unemployment rate is higher at 4.8% compared to men at 2.2%. As for life expectancy, World Bank 2025 puts it at women 66 years and men 61 years. Women are increasingly living longer than men.

The gender pay gap is significant, with women earning less than men for similar work. The unadjusted gender pay gap is 17.7% per hour and 31.3% per month. The

1

https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40dgreports/%40inst/documents/publication/wcms_908142.pdf

monthly gap is larger because women generally work fewer hours than men due to factors like women’s disproportionate unpaid care responsibilities, discriminatory practices, and individual choices. The pay gap varies by education level, with the largest gap (34.8%) seen among those with primary education and the smallest (1.6%) among those with tertiary education. Married women face a larger gap (18.8%) than single women, where the gap is almost negligible. The pay gap also differs across sectors; women earn 13.5% less in trade, 29.2% less in accommodation, and 37.6% less in education. However, women earn more than men in sectors like electricity production, construction, transport, and real estate, although they are underrepresented in these fields. The gap is most pronounced in the informal sector, where women earn 26.9% less than men, compared to just 1% in the formal sector. When accounting for factors like age, marital status, education, occupation, and sector, the adjusted gender pay gap is 9.5%, showing that much of the gap can be explained by these characteristics, though a significant disparity remains (KNBS, 2024; UN Women, 2024b).

The following table presents a summary of gender disparities in Kenya across various socio-economic indicators, including productive sectors, essential social services, well-being, and quality of life.

Determinants	Women (%)	Men (%)
% with Title Deeds (UN Women)	10.3	86.5
% who run SMEs (Oxfam 2022)	31.4	48
Adult literacy rate (% of people ages 15 and above) 2022	80.3	85.6
Labour force participation rate - (% of population ages 15+) (modelled ILO estimate)	62.2	71.4
Vulnerable employment (2021)	73.6	56.4
Mobile phone use for business	37.6	52.6
Share of women and men in employment	70.4	60.3
Share of women and men in non-agricultural employment	83	72
Bank account Ownership at a Financial institution ratio	75.4	83.2
Proportion of youth not in education, employment, or training, by sex and age (%) KCHS 2019	53	36
Senior and middle management positions	67	33
Members of Parliament (2024)	23.3	76.7

Source Gender data World bank.

2.2 Key Gender Indicators

2.2.1 Gender Inequality Index

Kenya's Gender Inequality Index (GII) score of 0.526 (2023) reflects persistent gender disparities across three core dimensions: reproductive health, empowerment, and labour market participation. On reproductive health, maternal mortality remains extremely high, around 530 per 100,000 live births, with adolescent fertility at 56.3 births per 1,000 girls aged 15–19, limiting educational and economic opportunities for young women². Empowerment gaps emerge in education and political representation: women's secondary and tertiary education attainment lags behind men (~40% versus ~60% at university), and women hold only ~23% of parliamentary seats³, falling short of Kenya's constitutional two-thirds gender rule. Meanwhile, labour market inequities persist: female labour force participation (~53%⁴) is further amplified by the wage disparities (up to 31% pay gap⁵). These dimensions collectively explain Kenya's moderate GII ranking (143rd globally), showing that improvements in health and education have not been matched by progress in political and economic empowerment.

2.2.2 Global Gender Gap Report 2025

In the Global Gender Gap Report 2025, Kenya dropped to 98th globally, marking a noticeable regression in gender parity despite slow global improvement (68.8% average)⁶. This decline reflects underperformance in two core dimensions: Political Empowerment and Economic Participation & Opportunity, where Kenya fell behind regional trends. Despite progress in educational equity and health access, the country's political empowerment score remains low, hindered by inadequate representation in leadership roles, while women continue to face structural barriers in the workforce, including persistent wage gaps and underrepresentation in senior positions.

Kenya's drop exposes entrenched disparities: women hold a small fraction of decision-making roles and experience systemic exclusion in high-level economic participation. Cultural norms and inadequate legal enforcement contribute to bias in boardrooms, politics, and labour markets. The education and health sub scores

² [Gender Inequality Index | Human Development Reports](#)

³ [Country Fact Sheet | UN Women Data Hub](#)

⁴ [Kenya Labour Force Participation Rate: Female: Youth Adults: Aged 15-64 | Economic Indicators | CEIC](#)

⁵ [UN women kenya gender pay gap brief.pdf](#)

⁶ [Benchmarking gender gaps, 2025 - Global Gender Gap Report 2025 | World Economic Forum](#)

are relatively strong, but the failure to translate those strengths into economic and political outcomes highlights critical gaps.

2.2.3 OECD's Social Institutions and Gender Index (SIGI)

OECD's Social Institutions and Gender Index (SIGI) measures discriminatory social institutions across four dimensions, Family Code, Physical Integrity, Access to Resources, and Civil Liberties. Kenya's overall SIGI score is 32.9 (2023)⁷, indicating moderate levels of discrimination. This score suggests that while Kenya has made progress, legal and social norms still disproportionately undermine women's agency in key areas.

Highlights from sub-index scores show continued barriers:

- **Family Code:** Discrimination persists in inheritance, marital rights, and parental authority.
- **Physical Integrity:** Kenya faces challenges with gender-based violence, including intimate partner violence and female genital mutilation.
- **Access to Resources:** This reflects limitations in women's land ownership, control over assets, and access to financial services.
- **Civil Liberties:** Women's political representation and legal freedoms remain constrained by norms that favour men in leadership roles

2.2.4 Women, Business and the Law (WBL) assessment

In the 2023 Women, Business and the Law (WBL) assessment, Kenya achieved a high score of 80.6 out of 100, surpassing the Sub-Saharan Africa average of 72.6 and the Eastern & Southern Africa regional average of 74.1⁸. The country received top marks in areas such as mobility, workplace equality, equal pay legislation, and marital rights, reflecting comprehensive legal entitlements for women in freedom of movement, employment protection, and non-discrimination. Kenya has instituted important reforms including the Protection Against Domestic Violence Act (2015)⁹, legal provisions for equal remuneration for work of equal value, and prohibitions against gender discrimination in employment, that have contributed significantly to its strong WBL score.

The WBL report also underscores critical legal gaps in the areas of parenthood, entrepreneurship, asset ownership, and pensions. Kenya lacks statutory provisions for paid maternity leave of at least 14 weeks, paid paternity leave, or parental leave, diminishing family support equity. Moreover, legal constraints are

⁷ [OECD Data Explorer • Social Institutions and Gender Index \(SIGI\) 2023](#)

⁸ <https://www.worldbank.org/en/news/press-release/2023/03/29/women-in-afe-kenya-enjoy-only-81-of-the-legal-rights-of-men>

⁹ [The Protection Against Domestic Violence Act, 2015](#)

noted in women's rights to inherit property equally, the ability to access credit without discrimination, and recognition of childcare absence in pension calculations. Closing these legal loopholes is essential to ensure that women enjoy the same economic opportunities and social protections as men under Kenyan law.

2.3 Policy and institutional context

Kenya has committed to various global human rights instruments that emphasize gender equality as a state obligation. Kenya's approach to gender and social inclusion is anchored in its Constitution, which enshrines the principles of equality, non-discrimination, and affirmative action. The policy environment is further strengthened by various national strategies and frameworks that align with international commitments. These National and International policy instruments are highlighted below:

2.3.1 The International Covenant on Civil and Political Rights (ICCPR)

This guarantees equal civil and political rights for men and women, including protections for women in marriage and against capital punishment during pregnancy (UN, 1967). The International Covenant on Economic, Social, and Cultural Rights (ICESCR) ensures equal economic and social rights, particularly fair wages and equal remuneration for work of equal value (UN, 1997).

2.3.2 The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)

An international treaty adopted by the United Nations in 1979, aimed at promoting gender equality and protecting women's rights globally. Ratified by Kenya in 1984, CEDAW serves as a critical framework guiding national policies and legal reforms to eliminate discrimination against women and ensure their full participation in all aspects of life.

Objectives and Importance of CEDAW in Kenya

1. **Promotion of Gender Equality:** CEDAW mandates governments to take appropriate measures to eliminate discrimination against women in political, economic, social, and cultural spheres. In the Kenyan context, this has led to increased advocacy for women's representation in decision-making processes, as seen in the Constitution of Kenya (2010), which incorporates a two-thirds gender rule in elective positions.
2. **Legal Reforms and Policy Framework:** Kenya's ratification of CEDAW has influenced legislation promoting women's rights. The Sexual Offences Act (2006) and the Prohibition of Female Genital Mutilation Act (2011) are laws enacted to safeguard women from violence and harmful practices, reflecting CEDAW principles.

3. **Monitoring and Accountability:** CEDAW establishes a committee that reviews the progress of state parties has prompted Kenya to report on its commitments and challenges, ensuring that women's rights issues are continuously addressed.
4. **Awareness and Advocacy:** Raising awareness on gender issues and mobilising civil society organizations in Kenya to advocate for women's rights. These play a vital role in educating communities about women's rights,
5. **International Support and Partnerships:** It has helped Kenya enhance partnerships with international organizations committed to promoting gender equality and led to empowerment programs

2.3.3 The Sustainable Development Goals (SDGs)

Kenya has formally subscribed to and is actively implementing the Sustainable Development Goals (SDGs) as part of its national development framework, including aligning the SDG agenda with Vision 2030 and through inclusive reporting processes such as its Voluntary National Reviews in 2017, 2020, and 2024¹⁰. In particular, Goal 5, Achieve gender equality and empower all women and girls, underpins efforts to eliminate discrimination, harmful practices, and violence, while ensuring equal access to resources, leadership roles, decision-making, and sexual and reproductive health and rights. Gender equality is reinforced across virtually all SDGs, influencing targets tied to poverty reduction, education, decent work, and justice, among others. The SDGs also emphasize social inclusion, advocating for equitable participation of marginalized groups, regardless of gender, age, ethnicity, or ability, in all aspects of public life.

2.3.4 African Charter on Human and Peoples' Rights (ACHPR),

The African Charter on Human and Peoples' Rights (ACHPR), also known as the Banjul Charter, is a regional human rights instrument adopted by African countries to promote and protect human rights and fundamental freedoms across the continent. It was established in 1981 and came into force in 1986 under the auspices of the African Union. The Charter outlines a comprehensive range of civil, political, economic, social, and cultural rights for both individuals and peoples. Its main goals include affirming equality, dignity, and freedom for all, while emphasizing the duties of individuals towards their communities and states (African Union 2020)

Table 2.3: Key ACHPR and Protocol Provisions on Gender Equality

Provision	ACHPR Article/ Protocol	Key Points
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¹⁰ <https://www.planning.go.ke/the-3rd-2024-voluntary-national-review-reportvnr-on-sdgs/>

Non-discrimination	Article 2	Prohibits discrimination by sex
Equality before law/protection	Article 3	Equal legal protection for women and men
Elimination of discrimination	Article 18(3)	Mandates state action to eliminate discrimination against women
Women's rights enhancement	Maputo Protocol (Art. 2, Art. 4, Art. 9, etc.)	Eliminates discrimination, bans violence, ensures participation and empowerment

2.3.5 The Maputo Protocol (2003)

The Maputo Protocol, officially the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa, is a landmark African Union legal instrument adopted in July 2003 and in force since November 2005, ratified by *44 out of 55 AU member states* including Kenya¹¹. It offers one of the most comprehensive frameworks for women's rights on the continent, covering civil, political, economic, social, cultural, and environmental domains. The Protocol mandates that states eliminate discrimination against women, outlaw harmful practices such as FGM and child marriage, ensure equal rights within marriage (including minimum marriage age and free consent), protect women from all forms of violence, guarantee sexual and reproductive health rights, and promote women's meaningful political participation through affirmative measures¹². It also secures economic, social, and cultural rights, including education, health, property, inheritance, and work, and obliges states to address structural barriers to genuine gender equality.

2.3.6 The African Union's Agenda 2063

Promotes gender equality as a key driver of sustainable development (Union, 2015). The Solemn Declaration on Gender Equality in Africa underscores the need for coordinated efforts to address challenges such as HIV/AIDS, gender-based violence, and limited access to education. African Union members committed to promoting gender parity, land and property rights for women, and legal measures to combat discrimination (African Union, 2012). To ensure accountability, Africa has Treaty Monitoring Bodies such as the African Commission on Human and Peoples' Rights (ACHPR) and the African Court on Human and Peoples' Rights (AfCHPR), which oversee the implementation of human rights treaties and gender equality frameworks (AU, 2010, 2024; Daley et al., 2013).

¹¹ <https://au.int/en/newsevents/20230705/maputo-protocol-20-years>

¹² [Taking stock: Maputo Protocol in Advancing Women's Rights - APHRC](#)

2.3.7 Constitution of Kenya (GOK 2010)

Kenya's commitment to gender equality is enshrined in its constitution and reinforced by specific legislative measures. Article 27 guarantees equality and freedom from discrimination, stating that every person is equal before the law and has the right to equal protection and benefit of the law. It mandates that women and men have the right to equal treatment, including equal opportunities in political, economic, cultural, and social spheres. Following the promulgation of the Constitution of Kenya in 2010, the National Gender and Equality Commission Act (2011) was enacted, establishing the National Gender and Equality Commission (NGEC), tasked with promoting gender equality and freedom from discrimination. Kenya has made strides in establishing legislative frameworks to promote gender equality, but significant disparities still persist. Implementation gaps, weak enforcement mechanisms, and deeply entrenched societal attitudes still hinder progress toward achieving full gender equality (NGEC, 2016; KNBS, 2023). Additionally, inconsistencies in legal frameworks such as contradictions between customary and statutory laws on property ownership and inheritance continue to disadvantage women (KNBS, 2023; 2024).

2.3.8 The Kenyan National Policy on Gender and Development (2019)

This policy, aligned with Kenya's Vision 2030 and constitutional mandates for equality, aims to eliminate gender-based discrimination and empower women by integrating gender considerations across all sectors nationwide. It promotes gender mainstreaming, affirmative action, capacity building, and mandates the collection of sex-, age-, and disability-disaggregated data. Key objectives include achieving equality in political, economic, social, and cultural spheres, protecting human rights, reducing gender-based violence, and improving livelihoods through equitable participation in national development (GOK, 2019).

2.3.9 The Sexual Offences Act (2006)

This Act provides comprehensive legal protection against sexual and gender-based violence. It criminalizes acts such as rape, defilement, sexual harassment, and incest, providing strict penalties for offenders. The Act was designed to address the rising cases of sexual violence and to offer legal recourse for victims, most of whom are women and girls (Republic of Kenya, 2006; Federation of Women Lawyers (FIDA), 2013).

2.3.10 The Marriage Act (2014)

The Marriage Act consolidates Kenya's diverse marital laws into one framework, recognizing civil, Christian, customary, Hindu, and Islamic marriages. It sets the legal minimum age of marriage at 18 years and mandates free and full consent of both parties (Republic of Kenya, 2014). This is a critical tool in eliminating child marriage and forced unions, which disproportionately affect girls (UNICEF, 2022).

2.3.11 The Matrimonial Property Act (2013)

This law governs the ownership and division of matrimonial property, recognizing both monetary and non-monetary contributions, such as domestic work and child care (Republic of Kenya, 2013). It is significant in advancing women's economic rights, especially in divorce or separation contexts, where they have traditionally faced exclusion from property ownership (FIDA, 2013).

2.3.12 The Protection Against Domestic Violence Act (2015)

This legislation defines and criminalizes various forms of domestic violence, including physical, sexual, psychological, and economic abuse. It also introduces protective measures such as restraining orders (Republic of Kenya, 2015). This law strengthens legal mechanisms to respond to intimate partner violence, which affects 41% of ever-married women in Kenya (KNBS 2022).

2.3.13 Prohibition of Female Genital Mutilation (FGM) Act, 2011

The Prohibition of FGM Act (2011) is a comprehensive law enacted to eliminate the practice of female genital mutilation in Kenya. The Act criminalizes the performance, aiding, abetting, and procurement of FGM, and applies to all Kenyans, including those who perform or facilitate FGM within or outside the country (extraterritorial jurisdiction) according to Republic of Kenya (2011).

2.3.14 The Employment Act (2007)

This Act outlaws discrimination based on sex in recruitment, training, promotion, and conditions of employment. It provides for maternity leave (three months) and paternity leave (two weeks) and prohibits sexual harassment in the workplace (Republic of Kenya, 2007). The law is instrumental in protecting women's labour rights and promoting equal opportunities in the formal employment sector.

2.3.15 National Gender and Equality Commission Act (2011)

This Act established the National Gender and Equality Commission (NGEC), an independent institution mandated to promote gender equality and monitor the implementation of gender-related laws and policies. The NGEC also advises public institutions on how to mainstream gender and inclusivity in governance and service delivery (Republic of Kenya, 2011).

2.3.16 The Children Act (2022 Revision)

The revised Children Act strengthens protection of children, particularly girls, from harmful practices like child marriage, FGM, and sexual exploitation. It aligns with the Constitution and Kenya's obligations under the UN Convention on the Rights of the Child (Republic of Kenya, 2022).

2.3.17 Kenya Vision 2030

Kenya's long-term development blueprint identifies gender equality as a key pillar of social transformation. Vision 2030 promotes affirmative action and gender-responsive budgeting, with a focus on increasing women's participation in governance, education, and economic development (Republic of Kenya, 2007).

2.3.18 Draft National Green Fiscal Incentives Policy Framework.

The policy framework is designed to accelerate the adoption of Climate Smart Technologies (CST) in Kenya by leveraging a mix of fiscal and economic instruments such as tax incentives, concessional loans, subsidies, and green bonds. It introduces tools like carbon taxes, tax rebates for green technologies, subsidies for clean energy, and ecological fiscal transfers, along with innovative mechanisms such as green and blue bonds, payment for ecosystem services, and technology sandboxes. These are intended to mobilize climate finance, lower investment barriers, and attract private sector participation across eleven priority sectors including agriculture, energy, transport, and clean cooking. Inclusiveness and equity are central to the framework, with targeted measures to ensure that women, youth, and persons with disabilities benefit from green investments through tailored financial instruments and community-based solutions.

Despite these efforts, structural challenges in Kenya's banking, insurance, and pension sectors continue to limit full financial inclusion, especially for women. Integrating Gender Equality and Social Inclusion (GESI) into CST financing is critical to ensure climate solutions are not only effective but equitable. Banks can act as catalysts by embedding gender-responsive practices into their operations, both internally, through inclusive policies and leadership development, and externally, by offering targeted financial products and engaging women's organizations. Effective GESI integration requires tools such as gender-disaggregated data, alternative collateral models, and alignment with global frameworks like the Principles for Responsible Banking and Women's Empowerment Principles. By adopting such measures, the financial sector can bridge inclusion gaps while expanding access to climate finance for marginalized groups.

2.4 Overview of KCB Bank's Gender Actions and Policies

KCB Bank Group has made notable strides in promoting gender equality through internal policies and community-oriented programs. These actions align with broader commitments to sustainable development and financial inclusion.

1. **Gender Mainstreaming and Workplace Equality:** KCB Bank has institutionalized gender equality within its human resources practices. Currently women make up over 50% of KCB's workforce and continues to

work towards increasing female representation in leadership. It has adopted a Diversity and Inclusion Policy, which ensures non-discrimination based on gender, and promotes equal opportunities in hiring, promotions, and professional development (KCB Group, 2022).

2. **Women-Focused Financial Products and Services:** The bank runs the KCB *2Jiajiri*, *Investing in Young Businesses in Africa (IYBA)* initiative and *MobiGrow* programs, which support youth and women entrepreneurs with access to capital, business training, and mentorship. These initiatives empower women in informal and agricultural sectors by facilitating access to microcredit and financial literacy (KCB Foundation, 2021).
3. **Gender Lens Investing/Women SMEs:** Through its partnership with Mastercard Foundation and IFC: KCB has committed to scaling up gender lens investing, focusing on women-led small and medium enterprises (SMEs) such as the Female Made & Led Enterprises (FMLE) initiative. This includes tailored financial products, business advisory services, and digital banking tools that support female entrepreneurs.
4. **Policy Alignment with Global Standards:** KCB is a signatory to the UN Women's Empowerment Principles (WEPs) and integrates SDG 5 (Gender Equality) in its corporate strategy. It also reports gender-related progress in its annual sustainability reports, promoting accountability and transparency.

3 Barriers to Gender Economic and Social Inclusion

Gender is a social construct that defines the roles, responsibilities, and expectations assigned to individuals based on their perceived masculinity or femininity. Unlike sex, which is a biological distinction between males and females, gender roles are influenced by cultural, economic, and political factors and vary across societies and historical periods. These socially ascribed roles shape access to resources, opportunities, and decision-making power, often leading to disparities that disadvantage specific gender groups (WHO, 2024). Gender issues in Kenya remain a significant challenge, affecting various aspects of social, economic, and political life. Despite the country's commitment to gender equality through its Constitution (2010) and various international conventions, disparities persist in areas such as gender-based violence, economic opportunities, education, health, and political representation. Cultural and societal norms continue to influence gender roles, often limiting women's and girls' access to essential resources and opportunities (WHO, 2024).

3.1 Work opportunities

The Kenya National Bureau of Statistics (KNBS) Time-Use Report reveals stark gender disparities in the allocation of time to unpaid domestic and care work. On average, women spend five times more time on such tasks than men, 5 hours per day compared to 1 hour for men. Nationally, women allocate 16.3% of their day to unpaid domestic work and 2.4% to unpaid care work, while men spend only 3.2% and 0.4%, respectively.

This is more pronounced in rural areas, where women spend more time on unpaid tasks than their urban counterparts, though urban women still carry a heavier burden than urban men. The disparity is especially severe in counties with inadequate infrastructure, such as Marsabit (30.2%), Wajir (26.8%), and Samburu (24.2%), where women can spend up to 7 hours daily on unpaid work, including water and fuel collection, limiting their time for economic activities.

Employed women still undertake 4 hours of unpaid work daily, compared to 1 hour for men. For non-working women, 16.4% of their day is devoted to unpaid duties, reflecting entrenched social and cultural expectations. Moreover, 93% of women participate in unpaid work, while only 68.4% are engaged in paid employment. In contrast, 79.7% of men participate in paid work.

This disparity underscores the issue of "time poverty", where women's caregiving responsibilities restrict their economic empowerment and participation in income-generating opportunities. Addressing this imbalance through care economy investments, infrastructure development, and gender-responsive policies is essential for enhancing women's access to climate-smart livelihood opportunities.

3.2 Business

Kenyan Women in business face inequalities in access to resources, opportunities, and support. They face obstacles such as limited access to finance, lack of business networks, and exclusion from high-value supply chains, resulting in fewer women-owned SMEs and limited participation in lucrative economic sectors (Oxfam, 2025).

Many Kenyan women who start businesses are still more likely to own informal or unlicensed enterprises and are concentrated in lower-value sectors such as small-scale retail or services, while men dominate high-investment industries like manufacturing and construction (Kagume, 2022). Access to loans and capital remains unequal, as women often lack collateral or face stricter lending requirements, resulting in significantly fewer women than men successfully securing business financing (Oxfam, 2025; IFC, 2022).

Business practices and policies often fail to address the specific needs of women, lacking targeted support, gender-disaggregated data, and equitable procurement opportunities, thus reinforcing gender-based exclusion in both entrepreneurship and employment (NGEC, 2017; IFC, 2022). Despite ongoing progress in counties such as Turkana, Kajiado, Narok, and Garissa, persistent systemic barriers continue to undermine gender equality.

In Turkana, although efforts are underway to include women and youth in emerging sectors like the blue economy, participation remains limited due to restricted access to capital, low education levels, and entrenched cultural norms (Kenya News, 2025). Kajiado has introduced male allyship programs to bolster women's entrepreneurship; however, patriarchal systems, limited market access, and gender-based violence continue to obstruct women's economic empowerment (Africa UN Women, 2024). Narok has seen benefits from improved market infrastructure and devolution, which support female small-scale traders. Still, challenges persist, including weak gender mainstreaming in county policies and women's limited influence in decision-making processes.

In Garissa, socio-cultural norms, compounded by low literacy and restricted mobility, significantly limit women's engagement in formal businesses, despite county-level efforts to promote gender inclusion (UN Women, 2024). Overall, across these counties, systemic issues such as gender-biased financial systems, unequal land ownership, and disparities in education continue to hinder inclusive growth, even as private sector actors begin adopting more gender-responsive approaches (KEPSA, 2024).

3.3 Education

Kenya has made notable strides in expanding access to education, improving equity, and enhancing quality over the past decade. These efforts have led to near gender parity in youth literacy, with a Gender Parity Index (GPI) of 0.99 and literacy rates of 96% for young males and 95% for young females aged 15–24 (Population Council, 2024). This reflects the success of interventions targeting younger cohorts. However, significant gender and regional disparities remain.

As of 2021, approximately 1.1 million girls were still out of school (UNICEF, 2021). Cultural barriers, including early marriage, adolescent pregnancy, and the burden of domestic responsibilities, continue to undermine girls' access to and retention in education. In some communities, boys' education is still prioritized, leading to fewer resources allocated for girls' learning (KNBS, 2020).

The COVID-19 pandemic exacerbated these inequalities, contributing to a 24% increase in dropout rates among girls, compared to 16% for boys (UNESCO, 2021). Many girls experienced early pregnancies, with 13% of adolescents aged 15–19 already pregnant or mothers, further increasing the risk of school discontinuation (KDHS, 2020).

While youth literacy is nearly gender-equal, disparities widen in adulthood: 86% of adult men are literate compared to 80% of women (World Bank, 2024). Notably, more women than men participate in Accelerated Christian Education (ACE) programs, with female enrolment double that of males, suggesting a gendered trend in educational recovery after early school exits due to marriage, pregnancy, or domestic roles (Ministry of Education, 2018).

In Kenya's marginalised counties, gender disparities in education remain significant, particularly in arid and semi-arid lands (ASALs). For instance, in Garissa County, only 20% of girls were educated as of 2022, and girl-child education stood at just 11% (FAWEK, 2024). Across the ASAL regions where this Programme is to be implemented, as many as 71% of women lack any formal schooling, underscoring the extent of educational exclusion relative to national averages (Okello, 2024). While Kenya's national Gender Parity Index (GPI) for primary school enrolment stands at 0.97, suggesting near parity, these figures mask pronounced regional and gender-based inequalities, especially at the secondary education level.

3.4 Finance

3.4.1 Gender Gaps in Credit and Financial Inclusion

Despite similar overall credit access rates, 92.7% for women and 91.8% for men, a significant gender gap persists in credit allocation and financial empowerment. Female-owned enterprises have a higher credit demand (31%) than male-owned

enterprises (25.1%), yet they receive significantly smaller loan amounts, averaging Kshs 0.41 million compared to Kshs 1.52 million for their male counterparts. Most notably, women-owned businesses account for just 4% of total business financing, while male-owned businesses receive 34%, underscoring the disproportionate financing gap (Odhiambo, 2023).

The disparity is more pronounced in medium-sized enterprises, where men are more favoured in credit access. Structural barriers like limited collateral, low financial literacy, and gender-biased risk assessments constrain women's access to finance, despite the narrowing of the overall gender gap in financial service access, which decreased from 4.2 percentage points in 2021 to 1.6 in 2024.

Women also remain more dependent on informal financial channels, 5.9% in 2024 compared to 4.5% for men, and continue to be underserved in formal banking. Informal lending persists due to restrictive collateral requirements, high loan costs, and rigid lending procedures that fail to accommodate women's unique needs.

3.4.2 Digital and Mobile Finance

Mobile banking has been a game-changer in promoting financial inclusion, but gender disparities remain. In 2024, a 7.8% gender gap exists in the use of banking apps, with only 33.7% of women using them compared to 40.2% of men (FSD, 2024). According to the 2022 Kenya Demographic and Health Survey (KDHS), smartphone ownership stands at 43% for women, versus 49% for men, limiting women's ability to access digital financial services and online economic opportunities.

Additionally, women's bank account usage lags, with only 29% having and using an account compared to 39% of men. These gaps are starker in rural areas, where only 73% of women use mobile phones for financial transactions compared to 75% of men, a divide that widens in urban areas (88% of urban women vs. 93% of urban men) (KNBS, 2022). Access to digital and mobile finance in Kenya's remote and marginalized areas such as Turkana, Samburu and Garissa has significantly improved, primarily through mobile money platforms like MPesa, Airtel Money, and Equitel. Despite this progress, challenges remain. Studies show that uptake in marginalized counties like Turkana is often hindered by low mobile phone ownership and lack of formal identification, which limits access to full mobile money services (Our World in Data, 2025; Wanzala & Obokoh 2025).

3.4.3 Gender Equality in CST Financing

Incorporating Gender Equality and Social Inclusion (GESI) in Climate-Smart Technology (CST) financing is essential for delivering both climate and socio-economic outcomes. CST financing refers to funding for technologies and practices

that support climate adaptation and mitigation, including renewable energy, sustainable agriculture, and efficient water use.

Women, smallholder farmers, and marginalized entrepreneurs are often excluded from CST financing due to collateral constraints, rigid application procedures, and product design that assumes a level playing field¹³. Financial institutions often offer smaller, higher-interest loans to women due to gender-biased perceptions of risk (FSD, 2024).

To address these inequities, banks must integrate GESI into their internal and external operations:

- Internally, they can promote inclusive leadership, equitable career advancement, and gender-sensitive workplace policies.
- Externally, they can develop gender-responsive financial products, apply inclusion criteria in due diligence, and partner with women's groups and community-based organizations.

Practical strategies include aligning with frameworks such as the Principles for Responsible Banking (PRB) and the Women's Empowerment Principles (WEPs), and utilizing instruments like gender bonds, green credit lines, and blended finance models to de-risk lending to underserved groups.

3.4.4 Policy Landscape and Systemic Challenges

While Kenya's Vision 2030 and the Constitution advocate for gender-responsive financial systems, policy implementation remains inconsistent. Women continue to face legal and structural barriers to collateral ownership, limited financial literacy, and minimal representation in leadership positions, perpetuating cycles of financial exclusion (NGEC, 2024).

Ultimately, addressing the gender gap in finance is not only a matter of equality, it is also a smart economic and climate strategy. GESI-inclusive CST financing can unlock new markets, increase banks' resilience, and contribute to inclusive green growth.

3.5 Land ownership

3.5.1 Gender Inequality in Land and Property Ownership in Kenya

Women in Kenya continue to face significant barriers in accessing and owning land, a foundational asset for economic empowerment. According to the Kenya National Bureau of Statistics (KNBS, 2022), only 27% of women own land, compared to 34% of men. The Kenya Demographic and Health Survey (KDHS,

¹³ [Advancing-gender-equality-and-womens-empowerment-target-setting-guidance-for-banks.pdf](#)

2022) reveals that just 25% of women own agricultural land, and a mere 3% own it exclusively.

Even among women who own land, 62% lack title deeds, and only 13% hold the title in their name. Regional and wealth disparities further compound the issue. While 32% of rural women own land compared to 14% of urban women, the latter are three times more likely to have their names on the title deed (27% versus 9%). Ownership is also heavily skewed by income: only 4% of women in the lowest wealth quintile have title deeds in their names, compared to 33% in the highest quintile (KNBS, 2022).

Historical data underscores the gender imbalance in land rights. Between 2013 and 2017, women received only 10.3% of registered land titles, while men received 85.6% (Kenya Land Alliance, 2018). The Sessional Paper No. 1 of 2017 on National Land Use Policy acknowledges these imbalances and their role in perpetuating poverty, especially in rural communities (Ministry of Land and Physical Planning, 2017).

Similar disparities exist in house ownership, with only 33% of women owning a house either solely or jointly, compared to 45% of men (KNBS, 2022).

3.5.2 Economic Implications of Land Insecurity for Women

The economic ramifications of limited land ownership for women are profound. Without secure land rights, women are often unable to use land as collateral to access credit from banks and formal financial institutions. A FAO (2020) report indicates that land ownership can more than double a woman's chances of obtaining credit, enabling investment in agriculture, entrepreneurship, and income-generating activities.

Moreover, secure land tenure for women has far-reaching development benefits. Research shows that women landowners are more likely to invest in their children's health and education, reinforcing intergenerational improvements in well-being and resilience (Oxfam, 2019). Land ownership also strengthens women's decision-making power in households and communities.

Despite these documented benefits, Kenya's gendered land ownership landscape remains deeply unequal, hindering the economic potential of women and slowing progress toward inclusive development. Legal recognition, implementation of gender-sensitive land reforms, and targeted policy interventions are critical to closing this gap. According to Kenya Land Alliance, 2010, in Narok and Kajiado counties women face limited land ownership and control due to customary laws favouring male inheritance. They are excluded because of norms that prioritize sons for land inheritance, rooted in beliefs that daughters marry out and thus should not inherit land. Women's land rights are hampered by intra-household

power imbalances and limited participation in land governance. In Turkana norms and gendered roles in natural resource management, marginalize women from formal land governance (Kenya Land Alliance, 2010). Among the Somali gender disparities are amplified by lower female literacy and rigid patriarchal systems that exclude women from land ownership and decision-making despite constitutional protections (Minority Rights Group, 2023). Overall, national data reflect this inequality: only about 25% of women aged 15–49 own agricultural land (mostly jointly), and as few as 7% own non-agricultural land, with many lacking formal title deeds. Structural biases rooted in patriarchal customs and inadequate legal enforcement perpetuate men’s dominance in land ownership across these communities (KIPPRA, 2024).

3.6 Agriculture

Despite women’s critical contribution to agricultural labour in Kenya, they continue to face entrenched disparities in access to productive resources, decision-making, and the benefits of agricultural activities. These inequalities are deeply rooted in socio-cultural norms, discriminatory legal frameworks, and institutional practices (Baragu et al., 2024; KIPPRA, 2021). Women in agriculture manage smaller plots of land and are less likely to hold ownership rights, which restricts their ability to invest in agricultural improvements or access formal credit (Baragu et al., 2024). As a result, they invest 36% less in farm inputs than men, directly reducing their productivity and potential income. These constraints limit women’s participation in commercial farming, reinforcing their marginalization within higher-value segments of agricultural value chains. In addition, women in agriculture also face gender wage gaps, limited upward mobility, and exposure to harassment factors that increase the social and economic costs of participation in the sector. These barriers contribute to the underutilization of human capital, reduce sectoral efficiency, and perpetuate food and nutrition insecurity at both household and national levels.

Agricultural extension services, though available in most counties, are male-dominated and less accessible to women due to restrictive training schedules, long travel distances, and socio-cultural constraints. Women tend to rely on informal knowledge networks and learn through experience rather than structured training. This limits their exposure to improved production practices, modern inputs, and new market opportunities. Furthermore, women’s participation in cooperatives, producer associations, and digital information platforms remains limited, weakening their collective bargaining power and market visibility.

Access to finance remains a significant barrier facing female farmers. Women operate within informal savings groups or rely on family contributions, as formal financial institutions often require collateral and credit histories that women cannot provide. Even where financial products exist, they are not tailored to the

realities of smallholder female farmers who have seasonal incomes, irregular cash flow, and limited formal documentation. In addition to this, women have limited financial literacy, which affects their confidence and ability to negotiate favourable loan terms or engage meaningfully with lenders. This exclusion from finance perpetuates low investment in agricultural inputs, mechanization, and climate-smart technologies that could enhance productivity. Furthermore, cultural norms, lower levels of education, and gendered household roles hinder women's access to extension services and agricultural training, exacerbating knowledge gaps and limiting uptake of new technologies.

Efforts to address these imbalances are evident in recent strategies such as the Agricultural Sector Transformation and Growth Strategy (ASTGS) and the Agricultural Sector Development Support Programme (ASDSP, 2020), which call for greater inclusion of women through improved access to resources, participation in decision-making, and institutional reforms. According to KIPPRA (2021), empowering women in agriculture has measurable positive impacts in enhancing food security, increasing control over income, and boosting group participation. Membership in farmer groups and cooperative organizations emerges as an important pathway for female empowerment and productivity enhancement. Women's involvement in these groups increases their access to extension services, agricultural inputs, and credit, resulting in higher yields and income.

The agricultural sector in Kenya not only mirrors broader societal gender inequalities but also perpetuates them. Addressing the structural barriers faced by women is essential for unlocking productivity, promoting inclusive growth, and achieving national food security goals. Closing the gender gap in agriculture is not only a matter of equity it is a smart economic strategy.

3.6.1 Agricultural Vulnerability and Priorities across CVI Clusters

The vulnerabilities and priorities of female farmers differ across Kenya's regions, driven by distinct levels of climate exposure, socio-economic sensitivity, and adaptive capacity. The Composite Vulnerability Index (CVI) offers a robust lens for understanding these divergences and for designing context-specific Climate-Smart Transformation (CST) interventions under the Facility.

Cluster 1: High Vulnerability Counties

This cluster comprises the 19 most climate-stressed counties in Kenya, including the Arid and Semi-Arid Lands (ASALs) such as Turkana, Garissa, Kajiado, and Narok; the coastal belt (Kilifi, Kwale, Lamu); and parts of the Lake Victoria basin (Homa Bay, Siaya, Migori). These regions represent the epicentre of Kenya's climate crisis, facing compounded risks of recurrent droughts, floods, and

resource-based conflicts that severely constrain livelihoods and human security.¹⁴
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Roles and Responsibilities of Women in High Vulnerability Counties

In these counties, women farmers and pastoralists operate within a “triple exposure” context, marked by recurrent climate shocks, high livelihood dependence on rain-fed agriculture and pastoralism, and systemic barriers that limit adaptive capacity such as poverty, gender inequality, and water scarcity.¹⁶
¹⁷ Women are responsible for securing food, collecting water, and caring for livestock, roles that expand significantly during droughts and floods when resource scarcity intensifies. This unpaid labour creates “time poverty”, restricting women’s ability to participate in education, leadership, or income-generating activities.

Gendered Vulnerabilities and Adaptive Capacity

Women’s vulnerability in these areas stems from limited access to productive assets, extension services, and decision-making spaces. In pastoralist societies such as the Maasai in Kajiado or the Turkana in northern Kenya, women’s roles are heavily tied to household survival and small-scale livestock care, while men control high-value herds and land rights.¹⁸ The exclusion of women from formal adaptation and market systems diminishes the resilience of entire households. Moreover, repeated climate shocks lead to asset depletion and increased social vulnerability, as women often resort to unsustainable coping mechanisms such as selling small livestock or migrating for casual labour.¹⁹

Adaptive Strategies and Resilience Pathways

Despite these challenges, women have developed localized adaptation strategies. In the ASALs, they diversify food crops, engage in small-scale water harvesting, and form self-help groups for savings and credit access.²⁰ However, these strategies remain insufficient in the face of intensifying drought cycles and environmental degradation. Strengthening women’s adaptive capacity requires

¹⁴ [the impact of climate change on pastoralism and livelihoods in Kenya](#)

¹⁵ [Climate Security Study: Kenya](#)

¹⁶ [Gender, social capital and adaptive capacity to climate variability](#)

¹⁷ [Assessing the Vulnerability of Maasai Community and Their Adaptation Strategies to Climate Change and Variability: A Case Study of Kajiado County, Kenya](#)

¹⁸ [Effects of Climate Variability on Livelihood Choices and Gender Roles Among Pastoral and Agro-pastoral Communities in Marsabit County, Kenya](#)

¹⁹ [Assessing the Drought Adaptation Strategies and Institutional Interventions in the Pastoral Livelihood System in Narok County, Kenya](#)

²⁰ [Gender Resilience to Climate Change Adaptation in Africa: A Case Study of Women in Eastern Kenya](#)

integrating gender perspectives into climate governance and providing targeted investments in water infrastructure, extension services, and land tenure reform.²¹

Ultimately, addressing vulnerability in Cluster 1 counties demands a gender-transformative adaptation framework, one that recognizes women not as passive victims but as crucial agents of climate resilience and local innovation. Empowering women through access to finance, markets, and education is essential for breaking the intergenerational cycle of climate-induced poverty in Kenya's most fragile ecosystems.

Cluster 2: Medium Vulnerability Counties

This transitional cluster consists of 15 counties that straddle Kenya's Western (Bungoma, Kakamega), Rift Valley (Laikipia), and South-Eastern (Makueni) regions, areas that face moderate climate stress but show improving adaptive capacity. While these counties still experience periodic droughts, erratic rainfall, and pest outbreaks^{22,23}, they benefit from better infrastructure, road access, and the presence of agricultural extension services that enhance climate resilience.²⁴

Shifts in Agricultural Systems and Gender Dynamics

In this cluster, female farmers are transitioning from subsistence agriculture toward semi-commercial and productivity-oriented systems. For instance, women in Makueni and Laikipia have increasingly adopted drought-tolerant crops such as sorghum and green grams, alongside integrating poultry and dairy farming to stabilize household income during dry spells. Similarly, in Western Kenya (Bungoma and Kakamega), women's groups have expanded into contract farming of maize and beans through cooperative models that link them to aggregation and value-addition markets.²⁵

Adaptive Practices and Institutional Support

Medium vulnerability counties demonstrate an upward trend in adaptive capacity, largely due to access to credit, farmer cooperatives, and county-level adaptation programs.²⁶ Female farmers are taking more active roles in climate-smart practices, such as rainwater harvesting, integrated pest management, and crop insurance schemes, that protect them against rainfall variability and pest infestations. Programs under the Kenya Climate-Smart Agriculture Strategy

²¹ <https://blueprintacademicpublishers.com/index.php/JATEMS/article/view/110>

²² [Climate Risk Profile for Kakamega County. Kenya County Climate Risk Profile Series](#)

²³ [Climate Risk Profile for Makueni County, Kenya](#)

²⁴ [Adapting public agricultural extension services to climate change: Insights from Kenya](#)

²⁵ [Inspiring Women and Youth to Join Farmer Cooperatives in Kenya - Cordaid International](#)

²⁶ [Kenya AFC-baseline-survey-report.pdf](#)

(2025–2030) further emphasize gender-responsive capacity building, aiming to enhance women’s participation in commercial value chains and leadership positions within farmer-based organizations.^{27,28}

Women’s Emerging Role in Adaptation Governance

Women in these counties are increasingly recognized as key agents in local adaptation governance. In Laikipia and Makueni, for example, women’s cooperatives participate in community-based resource management committees that oversee water conservation and reforestation projects.²⁹ This shift reflects a gradual move from vulnerability to empowerment, where women are not merely recipients of aid but decision-makers shaping local resilience frameworks.

Overall, Cluster 2 counties represent Kenya’s adaptive frontier, regions transitioning toward sustainable, market-linked agricultural systems while addressing persistent gender gaps in access to technology, credit, and land tenure.^{30,31} Strengthening these gains requires deepening gender integration in adaptation financing, extension systems, and rural innovation hubs to consolidate progress toward climate-resilient livelihoods.

Cluster 3: Low Vulnerability Counties

The 13 counties in this cluster, including Nyeri, Kirinyaga, Murang’a, and Nakuru, represent Kenya’s “pockets of resilience”, characterized by diversified economies, strong institutional capacity, and extensive market integration. These highland and peri-urban regions demonstrate the country’s most advanced adaptive capacity due to effective policy support, infrastructure, and innovation in agricultural systems.³²

Economic Diversification and Adaptive Strengths

Unlike the ASALs, these counties have a comparatively lower climate risk exposure owing to favourable agro-ecological conditions, high literacy levels, and access to diversified income streams such as agro-processing, trade, and services.³³ The regions have benefited from continuous agricultural modernization and the adoption of climate-smart practices, such as integrated soil fertility management,

²⁷ [A Gender-responsive Approach to Climate-Smart Agriculture](#)

²⁸ [The Politics of Governing Resilience: Gendered Dimensions of Climate-Smart Agriculture in Kenya](#)

²⁹ [four women’s groups receive Ksh 4.5 million grant for community water projects in Makueni - Government of Makueni County](#)

³⁰ [Mercy-Corps-AgriFin_Gender-Analysis-Report.pdf](#)

³¹ [Bridging the Gap: Gender & Climate-Resilient Agriculture - Agri Frontier](#)

³² [Evidence and policy implications of climate-smart agriculture in Kenya](#)

³³ [Managing risk under climate change in Kenya](#)

efficient irrigation, and digital weather-based decision systems, that have stabilized productivity and enhanced resilience.³⁴

Gendered Roles and Economic Participation

Female farmers in these counties are predominantly smallholders and agro-entrepreneurs involved in high-value cash crops such as coffee, tea, horticulture, and emerging agribusiness sectors. In Murang'a and Kirinyaga, women play pivotal roles in the horticulture and cooking banana value chains, acting as producers, aggregators, and local traders.³⁵ Similarly, in Nyeri and Nakuru, women have taken leadership roles in agricultural cooperatives and self-help groups that provide access to finance, training, and digital marketplaces, effectively integrating them into formal value chains.³⁶

These regions also exhibit significant gender inclusion in agricultural innovation. For example, studies from Nyeri and Kirinyaga show that women's knowledge drives varietal selection, climate adaptation, and crop diversification decisions, influencing local food systems and market resilience.³⁷

Emerging Challenges and Pathways

Despite strong performance, low vulnerability counties still face emerging threats such as climate-induced pest pressures and urban sprawl that reduces arable land. Addressing these challenges requires continued investment in innovation, youth engagement, and gender-sensitive policy implementation. Empowering women to advance from production to value addition and leadership within cooperatives remains central to sustaining resilience and inclusive growth.³⁸

3.7 Culture and religion

Culture and religion reinforce the gender gap by upholding male authority in decision-making, limiting women's autonomy in aspects like healthcare and reproductive choices through traditional norms and religious restrictions. Many women rely on traditional birth attendants and home remedies due to the perception that pregnancy-related complications stem from supernatural causes. Gender roles impact decision-making, as men hold authority over reproductive health choices, including family planning and hospital visits. Older women also play a crucial role in reinforcing traditional childbirth practices, further limiting

³⁴ [Climate-resilient horticulture for sustainable county development in Kenya](#)

³⁵ [Utilizing Gender Knowledge of Effective Adoption within Cooking Banana and Plantain Value Chain in Murang'a, Kirinyaga and Embu Counties, Kenya](#)

³⁶ [UNU-WIDER: Working Paper : Gendered implications of the waves of COVID-19 and economic upgrading trajectories in digital value chains](#)

³⁷ [Digital finance and agri-food value chains: Case studies from Kenya](#)

³⁸ [Change and continuity in land tenure system and gender relations in nyeri county, kenya \(1895-2013\)](#)

women's autonomy in seeking professional maternal healthcare (Mochache et al., 2020). Culture and religion in Turkana, Kajiado, Garissa, and Narok act as barriers that curtail business development. In these regions, patriarchal cultural norms prioritize male leadership and decision-making, limiting women's participation in economic activities. Practices like FGM and early marriage, common in these communities, restrict girls' access to education and economic empowerment (MDPI, 2025). Customary and religious laws frequently deny women land ownership and property rights, which are critical for securing business credit and investment. Additionally, religious interpretations like in Garissa at times reinforce traditional gender roles, discouraging women's leadership and entrepreneurship (RSIS, 2024).

3.7.1 Female Genital Mutilation (FGM)

Female genital mutilation (FGM) is a notable barrier to gender economic and social inclusion in Kenya, particularly within communities where it is traditionally practiced e.g., Samburu, Maasai, Somali communities among others. The persistence of FGM is driven in part by economic motivations: many low-income households associate FGM with increased marriageability, which in turn is linked to financial benefits such as bride price. As a result, families in poorer regions may see FGM to secure economic stability, reinforcing its continuation across generations (Kimathi & Babu 2023).

UNICEF 2021 add that, FGM restricts educational and employment opportunities for girls and women. FGM is often closely followed by early marriage, interrupting education and limiting future participation in business and employment, perpetuating poverty and economic dependence. The physical and psychological health consequences of FGM further hinder women's ability to contribute fully to society and the economy.

FGM is used socially to enforce traditional gender roles and maintain control over women's bodies. It reinforces women's marginalization by marking them as conforming to restrictive cultural norms, excluding those who reject the practice from important social events and community decision-making, thereby undermining broader efforts at gender equality and inclusion.

Among the Programme areas, Narok County has made progress, with FGM prevalence declining from 78% in 2014 to 51% in 2022, and 22% in remote areas. This is due to adoption of an Anti-FGM Policy Implementation Matrix and increased community-led interventions, although challenges such as early marriages linked to FGM persist according to Kimani et al., 2025. Kajiado has a high FGM prevalence at approximately 53%, where early marriage and FGM remain widespread despite ongoing education and policy efforts (Orchid Project, 2025; Mutundu et al., 2024). Turkana County has low FGM prevalence reflecting

its different cultural practices (Orchid Project, 2025). Among the Somali community in North-eastern Kenya, FGM prevalence is extremely high, around 87%, with the most severe forms (infibulation) commonly practiced due to strong cultural and religious adherence. Efforts to eradicate FGM face challenges from entrenched traditions and medicalization of the practice, despite legal prohibitions and national eradication goals (Orchid Project, 2025, Mutwiri, 2024). Overall, while national FGM prevalence in Kenya dropped to 14.8% in 2022, ethnic and regional disparities persist, with Maasai and Somali communities exhibiting the highest rates (Orchid Project, 2025).

3.8 Political representation

Kenya's 2010 Constitution enshrines gender equality and mandates the inclusion of women in political leadership, notably through Article 27(8), which calls for no more than two-thirds of elective or appointive positions to be held by one gender. However, despite these legal provisions and some progress, women remain significantly underrepresented in key political and administrative positions across national and county levels.

3.8.1 Progress in Representation

There has been modest improvement in women's political participation. The number of women in County Assemblies rose from 695 in 2021 to 725 in 2022. Additionally, the proportion of female candidates increased from 8.7% in 2017 to 12% in 2022 (IEBC, 2022). The 2022 general elections saw the election of:

- 7 female governors (out of 47 counties)
- 8 female deputy governors
- 3 female senators
- 29 female MPs from single-member constituencies
- 115 female members of County Assemblies

While these figures indicate progress, the numbers remain far below parity, especially in executive roles.

3.8.2 Persistent Barriers

Despite constitutional guarantees, structural and systemic challenges continue to hinder women's full participation in politics:

- High campaign costs and limited access to financing
- Lack of political party support and nomination barriers
- Political violence and voter intimidation, often targeting women candidates
- Sociocultural norms reinforcing male dominance in leadership
- Weak enforcement of gender quotas and delays in implementing court rulings on the two-thirds gender rule

- Limited awareness and enforcement of the Election Campaign Financing Act, disproportionately affecting women with fewer resources (UN Women, 2023; Economic Survey, 2024)

3.8.3 Declining Trends and Leadership Gaps

Women’s representation in senior executive and administrative roles remains particularly low:

- Cabinet Secretaries: declined from 35% to 33.3%
- Principal Secretaries: dropped from 23.1% to 21.6%
- Regional Commissioners: only 12.5% are women
- County Commissioners: 12% representation

In the legislature, women hold:

- 23.5% of National Assembly seats (up slightly from 23.2%)
- 33.3% of Senate seats (up from 31.3%)
- 33.5% of County Assembly seats (down from 33.7%)

Notably, there are no female Speakers or Clerks in Parliament, and only one female County Speaker (2.1%).

3.8.4 Policy Landscape and Implementation Gaps

Kenya has passed progressive gender-related laws and policies, such as the Prohibition of FGM Act (2011) and the National Policy on Gender and Development (2019). However, implementation remains weak, hindered by inadequate funding, enforcement deficits, and persistent sociocultural resistance (NGEC, 2021).

While Kenya has taken legislative strides toward gender equality in politics, entrenched barriers continue to restrict women’s access to leadership and decision-making. Achieving true parity requires more than legal frameworks, it demands robust enforcement, political will, adequate financing, and sustained efforts to dismantle social norms that marginalize women from public life.

3.9 Ethnicity

Ethnicity remains a significant barrier to the economic and social inclusion of women in Kenya, particularly for those belonging to minority and indigenous communities. These women experience intersectional discrimination, where both gender and ethnic identity combine to exacerbate their exclusion and vulnerability.

3.9.1 Intersectional Discrimination and Harmful Practices

Women from ethnic minorities such as the Turkana, Rendille, Borana, Maasai, Samburu, and indigenous communities like the Ogiek, Sengwer, and Boni, are

disproportionately affected by harmful cultural practices, including female genital mutilation (FGM) and child marriage. These practices are more prevalent in some minority groups and directly contribute to lower educational attainment, higher poverty rates, and limited life opportunities for girls (Minority Rights Group, 2024).

3.9.2 Marginalization in Land, Services, and Economic Opportunity

Women from these communities face multiple forms of structural exclusion:

- Limited access to land rights and tenure security
- Inadequate access to basic services such as healthcare, education, and clean water
- Restricted opportunities for economic advancement, especially for hunter-gatherer and pastoralist women, who often experience displacement, environmental insecurity, and resource-based conflict

These conditions not only affect their economic status but also undermine their capacity to participate meaningfully in decision-making at both the community and national levels (Young, 2012; Minority Rights Group, 2024).

3.9.3 Institutional Gaps and Legal Shortcomings

Despite the protections enshrined in Kenya's 2010 Constitution, deep-rooted ethnic and gender biases persist in practice. Institutional frameworks have largely failed to deliver inclusive policies at scale, and enforcement of existing rights is often weak. As a result, women from ethnic minorities remain underrepresented in political institutions, educational systems, and financial markets (Save the Children, 2024).

3.9.4 The Need for Targeted and Intersectional Interventions

The combined effects of ethnic exclusion and gender inequality continue to trap minority women and girls in cycles of poverty and marginalization. This underscores the urgent need for targeted, intersectional policy responses that:

- Address cultural barriers and discriminatory practices
- Enhance access to land and economic resources
- Improve representation and voice in governance
- Provide tailored support at the community level

Only through such comprehensive interventions can Kenya move toward genuine gender and ethnic inclusion (Minority Rights Group, 2024; Young, 2012).

3.10 Health

Kenya is a signatory to global commitments such as Family Planning 2020 (FP2020) and its successor Family Planning 2030 (FP2030), which aim to expand

access to modern contraceptives for an additional 120 million women and girls globally, thereby reducing unintended pregnancies and maternal mortality (UN, 2014; 2020). As part of its obligations, Kenya is required to report progress to Treaty Monitoring Bodies (TMBs), including those established under instruments such as CEDAW, which assess compliance, highlight regressive practices, and facilitate dispute resolution mechanisms.

3.10.1 Cultural and Religious Barriers to Reproductive Autonomy

Despite national progress, deeply entrenched cultural and religious norms continue to impede women's reproductive autonomy. In many communities, men retain authority over key family decisions, including those concerning health and reproduction. For example, among the Digo community, maternal healthcare is shaped by traditional beliefs, with women often depending on birth attendants and spiritual remedies rather than formal health facilities. Male partners typically control decisions on hospital visits and family planning, while older female relatives reinforce traditional childbirth practices (Mochache et al., 2020).

Religious beliefs also influence reproductive health choices. In predominantly Muslim regions, women frequently avoid male healthcare providers, contributing to delays in treatment and limited access to modern maternal care. Additionally, misconceptions regarding religious prohibitions on contraception often reinforce male dominance and lower contraceptive uptake (Mochache et al., 2020).

3.10.2 Regional Disparities in Family Planning Access

While national statistics show that 92% of married women participate in family planning decisions, these figures mask significant regional disparities. In Mandera County, only 61% of women are involved in family planning decisions, and contraceptive uptake is as low as 2%, compared to 75% in Embu County (KNBS, 2022). These gaps reflect broader inequalities in health infrastructure, education, and sociocultural dynamics, which disproportionately affect women in marginalized areas.

3.11 Gender Based Violence/GBV

Kenya faces high rates of gender-based violence. As per 2014 Kenya Demographic and Health Survey, 38% of women aged 15–49 have experienced physical or sexual violence (KNBS et al., 2015). These risks are exacerbated in fragile, conflict-prone, or displacement-affected regions, where social safety nets are weak. Reproductive health outcomes remain concerning. Kenya's maternal mortality rate stands at 342 deaths per 100,000 live births, with marginalized counties recording even higher rates due to limited access to quality maternal health services and harmful cultural practices such as female genital mutilation (FGM) (World Bank, 2022; UNICEF, 2023). GBV profoundly affects women's empowerment and participation

in various sectors. According to the Kenya Demographic and Health Survey (KDHS) 2014, approximately 39% of women aged 15-49 have experienced physical or sexual violence, which not only impacts their health and well-being but also constrains their economic opportunities (KNBS 2014).

GBV creates a pervasive environment of fear and insecurity that limits women's mobility and access to education and employment (UN Women, 2020). Women who experience violence may be forced to withdraw from schools or jobs, diminishing their potential for income generation and economic independence. The social stigma associated with GBV often leads to isolation, preventing women from engaging in community activities or pursuing leadership roles within society (UNFPA 2019).

The economic implications of GBV extend beyond individual victims to communities and the national economy. This financial burden underscores the urgent need for policies that address GBV and support women's rights and autonomy. GBV remains a significant barrier to gender economic and social inclusion in Kenya, affecting women's ability to participate fully in society and contribute to economic growth.

In the Programme areas, GBV is rife in Narok, Kajiado, Turkana, and Somali communities in Kenya, driven by social norms and harmful cultural practices. In Narok County, GBV prevalence is alarmingly high. About 42.5% of women aged 15–49 report experiencing violence, exceeding the national average. 77% of community members believe women should tolerate GBV to keep family unity, while one in two women knows someone physically abused in the past year. Harmful practices like FGM are widespread. Courts recorded 91 sexual offence cases in 2024 alone (Uhuru & Wamocha 2024; We World, 2025). Among the Somali GBV is entrenched within rigid patriarchal and cultural systems, with early marriage, FGM, and sexual violence prevalent. Female victims face barriers to justice due to cultural stigma (Minority Rights Group, 2023). In Turkana, GBV is widespread where women and girls face violence related to forced early marriages and limited access to services (FAO, 2017; Kenya Land Alliance, 2010). Kajiado County records high rates of GBV. Community awareness programs and legal frameworks exist but are undermined by social acceptance of GBV and low conviction rates (Kajiado County Government, 2023; Mutundu et al., 2024). Laws against GBV exist nationally, but deeply rooted cultural attitudes, poverty, and weak enforcement maintain high levels of gender-based violence in these communities.

3.11.1 Prevalence and Current Trends

Gender-based violence (GBV) remains a critical crisis in Kenya. Recent reports indicate that GBV cases have significantly surged, with more than 7,100 cases of

violence against women documented between September 2023 and December 2024, including at least 100 recorded murders of women. The Nairobi Women's Hospital's Gender Violence Recovery Center receives approximately 4,000 GBV cases every month highlighting the widespread and urgent nature of this crisis (VOA News, 2024; The Global State of Democracy, 2025). Femicide is a particularly alarming dimension: in 2024, at least 170 women were killed, marking a 79% increase from the previous year. In the first quarter of 2025 alone, Kenyan police and local media reported 129 women killed, reflecting persistent and unabated violence (CNN, 2025).

3.11.2 Types of Violence and Impact

Physical and Sexual Violence: According to the 2022 Kenya Demographic Health Survey, about 40% of women have experienced physical or sexual violence by partners at least once. Approximately 38% of married women face physical abuse, and one in three has experienced sexual violence before turning 18 (Africanews 2025).

Femicide: The 2024 United Nations Office on Drugs and Crime report recorded 725 femicide cases in Kenya, equivalent to about 47 women killed every week, and around three-quarters of these murders are perpetrated by someone known to the victim (Nation, 2025).

Economic and Social Impact: It is estimated that Kenya loses Sh41 billion (about USD 320 million) annually due to GBV-related costs, including direct and indirect expenses borne by survivors and their families (NGEC 2021).

The rise in GBV in Kenya is attributed to several key factors:

- Systemic misogyny and patriarchal social norms that perpetuate violence and marginalize women.
- Economic disempowerment intensifies vulnerability to abuse.
- Weak legal protections and ineffective enforcement that allow perpetrators to escape justice.
- Societal stigma and the culture of silence deter many survivors from reporting incidents, resulting in underreported case

3.11.3 Government and Civil Society Responses

Kenya's government has acknowledged GBV as a pressing national security issue. Recent interventions include:

- Establishment of a 42-member task force and a specialized police unit to address GBV and femicide cases (OneIndia, 2024).

- According to GOK 2025, a three-year national initiative aimed at reducing GBV incidents and strengthening support systems for survivors was launched.
- Policy commitments to integrate support services (medical, psychological, and legal) into universal health coverage and establish recovery centers in all 47 counties by 2026 (UNFPA, 2023).

Active engagement by human rights organizations to demand justice and societal reforms

3.11.4 Conflict, Displacement, and Gendered Risks

Women in conflict-prone areas such as Turkana, Marsabit, and parts of the North Rift face heightened vulnerability due to displacement, intercommunal violence, and resource-based conflict. These conditions increase the risk of sexual and gender-based violence (SGBV), human trafficking, and loss of livelihoods (IOM 2022). Conflict and insecurity often cause large-scale displacement, forcing women and girls into environments where they are exposed to heightened risks of gender-based violence (GBV), including physical and emotional abuse, forced marriage, and harmful practices like female genital mutilation (FGM) (Refugees International, 2024; Women’s Refugee Commission, 2023).

Displacement also worsens access to basic resources and services: women frequently have limited livelihood options and struggle to sustain social and economic participation, often losing access to education and community support systems (Onyango & Elliott, 2022). These challenges compound existing gender inequalities, increase Kenyan women’s social isolation, and marginalize them from decision-making processes, while also deepening the cycle of poverty and exclusion from development opportunities.

3.12 Environmental and climate related vulnerabilities

Climate change has a disproportionate impact on women in Kenya, particularly those in rural areas who depend heavily on rain-fed agriculture and natural resources for their livelihoods. The situation is even more dire in ASAL areas where the Programme will be implemented as these areas Narok, Turkana, Kajiado, and Garissa are susceptible to extreme events which disrupt livelihoods and strain resources (ACAPS, 2025). The arid and semi-arid lands (ASALs) in these counties are particularly vulnerable due to reliance on rain-fed agriculture and pastoralism, making them highly sensitive to shifting weather patterns and environmental degradation. The increasing frequency and severity of droughts, floods, and erratic rainfall patterns have significantly intensified the daily challenges women face, especially regarding access to water, food, and firewood (UN Women, 2022).

Women’s ability to adapt to climate risks is severely constrained by limited access to land tenure, climate-resilient technologies, financial services, and agricultural extension programs. These gender gaps in adaptation resources and climate finance not only undermine women’s resilience but also hamper Kenya’s broader climate resilience objectives (FAO, 2021; UNDP, 2020).

Globally, the situation is similarly dire. Women and girls are disproportionately affected by climate change, biodiversity loss, and environmental degradation. By 2050, up to 158 million women and girls could be pushed into extreme poverty, and 236 million could face food insecurity due to climate-related disruptions in food systems (UN Women, 2024). The agricultural sector illustrates this vulnerability starkly: although women are central actors in food systems, as producers, processors, traders, and consumers, they face increasing difficulty due to climate stress. Evidence from seven Sub-Saharan African countries shows that each additional day of high temperature leads to a 2.5% decline in the total value of crops grown on women’s plots compared to men’s, exposing the compounded risks faced by women due to both climate and gender disparities (UN Women, 2024).

In the water and energy sectors, the gendered burden is also evident. Women and girls spend over 250 million hours per day collecting water, more than three times the time spent by men and boys. This limits education, employment, and leisure opportunities, and increases exposure to injury and gender-based violence. Despite their critical roles in managing natural resources and sustaining household wellbeing, women remain marginalized in environmental governance. As of 2023, only 27.4% of countries had implemented gender-responsive measures in national water management frameworks, and women held just 16.4% of senior management roles in the energy sector.

Table 3.1 illustrates key gender-based disparities that either limit or enable women’s participation in climate-related economic opportunities, including access to programs such as the proposed KCB initiative.

Table 3.4: Gender-Based Differences in Access and Participation in the Programme

Dimension	Men from Vulnerable Communities	Women
Access to Information	More likely to receive timely information through business and social networks.	Less access due to lower literacy levels, digital divide, and limited networks.
Access to Finance	Easier access to loans and credit facilities due to asset ownership and established credit histories.	Limited access to finance from lack of collateral, legal constraints, and gender bias in lending institutions.

Participation in Trainings and Adoption	Higher participation due to fewer domestic responsibilities and better mobility.	Limited participation due to time poverty, unpaid care work, and cultural constraints.
Ownership of Enterprises	Higher rates of formal business ownership and registration.	Predominantly in informal sectors with fewer registered MSMEs.
Decision-Making Power	Greater influence in community and household decisions related to investments and technology use.	Limited decision-making power, particularly in male-headed households and patriarchal communities.
Technology Access and Use	More familiar with and able to access new technologies (e.g., irrigation, solar).	Lower awareness and access to due to lack of targeted outreach and technical support.
Networking and Market Linkages	More likely to be members of business associations and cooperatives.	Less represented in trade networks and support platforms.
Resilience and Risk Management	Better positioned to recover from climate and economic shocks.	Higher vulnerability due to fewer resources and adaptive options.

3.13 Youth

Youth in Kenya face intersecting barriers that hinder their economic and social inclusion, and these barriers are strongly influenced by gender norms, institutional frameworks, and socio-economic context. Both genders encounter challenges, but the nature and impact of exclusion differ markedly by gender.

For girls, deep-rooted social norms and expectations, such as early marriage, limited discussion of sexual and reproductive health (SRH), and the prioritization of domestic responsibilities, constrain their access to education, skills development, and employment opportunities (Save the Children, 2024). Early pregnancies and the stigma that follows contribute to high school dropout rates, reducing girls’ lifetime earnings and limiting their participation in the formal workforce (KIPPRA, 2024). Even where educational progress is made, girls often transition into lower-paying, informal, or insecure jobs, particularly in agriculture and the informal economy (Inclusive Futures, 2023).

For boys, exclusion is more strongly associated with labour market challenges. High unemployment, lack of access to professional networks, and pressure to meet traditional provider roles hinder their economic mobility (World Bank, 2024). While boys also drop out of school, this is often driven by economic necessity. Their frustration and limited prospects can increase vulnerability to recruitment into informal economies, gangs, or political violence (CHRIPS, 2022). Furthermore, rigid expectations around masculinity can discourage boys from engaging in support or empowerment programs often designed with girls in mind.

While both genders face exclusion as youth, girls experience layers of gendered disadvantages due to harmful norms, limited access to resources, and increased vulnerability to early marriage and school dropout, while boys are more affected by labour market exclusion and social pressures related to masculinity. Addressing youth as a barrier to gender economic and social inclusion thus requires nuanced, gender-responsive strategies that consider the complex and different realities of both groups (Save the Children, 2024; CARE, 2024).

3.14 Persons with disability (PWDs)

People with disabilities (PWDs) in Kenya face pervasive barriers to economic and social inclusion, with women and girls experiencing *compounded discrimination* at the intersection of disability and gender. Despite constitutional and legal reforms, disability is often framed as a societal burden, fuelling negative stereotypes, pity, and superficial approaches to inclusion (UNDP, 2024). This outlook perpetuates exclusion in critical areas such as education, healthcare, employment, and political participation for both men and women.

Women and girls with disabilities experience double discrimination: marginalisation both as females and as PWDs (GCAP, 2020; UNDP, 2024). Cultural beliefs and negative attitudes within families and communities often result in denial of education, legal autonomy, and access to public services. High rates of illiteracy, poverty, forced marriages, gender-based violence, and limited access to reproductive health further compound their exclusion, particularly in informal settlements and rural areas (GCAP, 2020). Affirmative action policies exist, like the 5% employment quota for PWDs, but these often fall short in practice, with implementation undermined by tokenism and a lack of effective oversight (UNDP, 2024). Physical inaccessibility, lack of assistive devices, and limited availability of sign language interpreters or tailored social protection hinder inclusion in workplaces, education, and public life (KNCHR, 2025; NGEC Kenya, 2024).

PWDs, especially women and girls with disabilities, underlines how intersectional barriers restrict equitable access to resources and opportunities like this Programme, with profound consequences for Kenya's broader development goals. Addressing these challenges requires shifting societal mindsets, strengthening policy enforcement, providing targeted support, and mainstreaming disability and gender concerns across all development frameworks (GCAP, 2020).

4 Results and discussions

4.1 Socio demographic

This section presents an overview of the Micro, Small, and Medium Enterprises (MSMEs) sampled during the survey, highlighting key trends related to age, gender, disability status, location, size, and sector of operation.

Age Distribution: The majority of MSME owners fall within the 25–34 age group (38.1%), followed by those aged 35–44 (27.4%) and 45–54 (19.5%). This indicates that youth and early middle-aged adults form the largest segment of enterprise ownership.

Gender Representation: There is a notable gender disparity in MSME ownership. Male respondents account for 53.5% of MSME owners, while women represent 37.4%. 9.1% of respondents chose not to disclose their gender.

Disability Status: Only 3.8% of MSME owners identified as Persons with disabilities, compared to 96.2% without. This underrepresentation may reflect systemic barriers such as unsuitable business environment, limited access to tailored financial services, and social stigma.

Location: MSMEs are fairly evenly distributed across urban (45.3%) and rural (44.0%) areas, with peri-urban regions accounting for 10.7%. This spatial distribution suggests opportunities to tailor support programs according to regional contexts and infrastructure availability.

Size of Enterprises: Most of the enterprises fall into the small enterprise category (10–49 employees), comprising 53.5% of the sample. Micro enterprises (1–9 employees) account for 32.1%, while medium enterprises (50–99 employees) represent 14.5%.

Sector of Operation: The **agriculture sector** dominates MSME activity, accounting for 55.0% of businesses. Other significant sectors include manufacturing (17.5%) and energy (16.7%), reflecting a rise in small-scale production and renewable energy initiatives, particularly in rural and peri-urban areas. Other sectors reported include: Waste management: 1.9%; Transport: 1.1%; Education: 0.7%; Health: 0.4%; and Wholesale/retail: 0.4%.

Climate Vulnerability: Notably, **31.1%** of MSMEs reported being susceptible to climate-related shocks, highlighting the importance of climate resilience strategies within MSME support programs (see Table 4.1).

Table 5.1: Proportion of respondents by climate-related impact

Climate Shock	Proportion (%)	Climate related shocks experienced and impact
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Floods	20.2	Inaccessible roads, damaged materials, disrupted operations
Drought	23.4	Reduced water for agriculture, lower yields, supply shortages
Unpredictable Weather	11.7	Production delays, increased disease/pest outbreaks
High Humidity	4.3	Material/tool damage, increased contamination risk
Other/General Climate	40.4	General climate change, multiple/combined effects

Source: Survey, 2025

4.2 Gender, economic and social inclusion in lending policies

4.2.1 GESI Gaps in the Credit Policy

A review of the Credit Policy reveals that while it provides a comprehensive framework for credit risk management, it lacks critical provisions related to gender equality, youth inclusion, and the needs of persons with disabilities (PWDs).

Absence of GESI Language and Targeting: The policy does not reference key terms such as “gender,” “women,” “youth,” “disability,” or “PWDs”, underscoring a fundamental gap in its responsiveness to Gender Equality and Social Inclusion (GESI). There are no provisions that identify women, youth, or PWDs as target beneficiaries, nor does the policy offer differentiated lending criteria, interest rates, or collateral requirements tailored to these groups.

Green and Climate-Smart Financing Gaps: Although the policy includes a section on green lending (Appendix 6), covering renewable energy, energy efficiency, and climate adaptation, it fails to explicitly prioritize access for women, youth, or PWDs. Similarly, while climate-smart agriculture (CSA) is mentioned under climate adaptation, there is no accompanying focus on gender-responsive financing or youth-led agribusiness support.

Data and Reporting Limitations: The policy emphasizes the importance of data quality (Section 5.9), but it does not require gender-, age-, or disability-disaggregated data in loan tracking or reporting. This lack of disaggregated data significantly limits the ability to monitor or evaluate whether green or CST-related financing reaches marginalized groups.

Collateral and Credit Accessibility Barriers: Section 5.24.4 of the policy mandates security for high-risk loans, which presents a barrier for women and youth who often lack traditional forms of collateral such as land titles. The policy does not

offer alternative collateral mechanisms (e.g., group guarantees, movable assets) that could facilitate access to credit for underserved populations.

Lack of Tailored Loan Products: No dedicated loan products or credit lines are provided for women entrepreneurs, youth-led enterprises, or PWDs. The absence of flexible repayment terms, lower interest rates, or fee waivers for these groups further limits financial inclusion and the potential for inclusive CST financing.

Table 6.2: Summary of the GESI analysis in the Credit Policy, 2023

Criterion	Status in Policy	Remarks
Explicit mention of GESI groups	Not included	Missed opportunity to promote financial inclusion
Tailored financial products for GESI groups	None	All products appear gender-neutral but are not gender-responsive
Disaggregation of credit data	Absent	No sex, age, or disability-based reporting
Targeted support for CST among women/youth/PWD	Missing	Green lending exists but lacks equity-focused access mechanisms
Potential for GESI integration	High	Strong technical policy foundation; needs inclusive overlays

Data sources: KCB documents

4.2.2 GESI Gaps in the Credit Manual

Similar to the Credit Policy, the Credit Manual does not explicitly address Gender Equality and Social Inclusion (GESI). While it includes provisions for consumer protection and disclosures, such as Total Cost of Credit and insurance rights, there are no dedicated initiatives or references targeting women, youth, or other marginalized groups.

- **Credit Scoring Models** (Section 5.4.7): The manual outlines credit scoring procedures, but these lack gender-disaggregated risk assessments or inclusive criteria that consider the specific needs of underrepresented groups.
- **Green Lending Framework** (Appendix D): The manual provides a comprehensive framework for green lending, categorizing eligible projects, such as renewable energy, energy efficiency, and sustainable transport, and linking them to Sustainable Development Goals (SDGs). The bank also applies an exclusion list to screen out environmentally harmful projects, and defines green loans as financing directed toward eligible green initiatives. Requirements include:
 - Tracking use of proceeds

- Annual reporting on environmental impact
- Encouragement of lower pricing to promote uptake of green financing

Despite these strengths, the manual presents the following key gaps:

1. **Limited Financial Incentives:** While green projects are well defined, preferential pricing or other financial incentives for adopting green technologies are not clearly articulated (Section 5.2.4).
2. **Weak Monitoring and Reporting:** The manual lacks detailed indicators for measuring environmental outcomes, such as carbon emission reductions or energy savings.
3. **Insufficient Integration with Risk Assessment:** Green lending criteria are not fully integrated into the credit risk evaluation process, there are no differentiated risk weights or mitigation strategies for green versus non-green projects.

4.2.3 Barriers to CST Access Among MSMEs

A review of the *MSMEs' Climate-Sound Technologies for Production Efficiency and Business Value in Kenya* concept note reveals that, despite the critical role MSMEs play in driving economic development, they continue to face substantial barriers to accessing financing. These include:

- Socio-cultural norms
- Lack of collateral
- Low education levels
- Limited access to technology

These barriers are especially pronounced among female-led MSMEs, who remain significantly underrepresented in access to finance. Other marginalized groups, such as youth, persons with disabilities (PWDs), and MSMEs operating in rural and arid/semi-arid regions (ASALs), face similar constraints. These challenges undermine their participation in low-carbon sectors such as clean energy, agroecology, and waste management.

GESI Integration in KCB Foundation Programs

Key Informant Interviews (KIIs) with staff indicate that the KCB Foundation shows strong institutional commitment to gender and youth inclusion, evidenced by dedicated products such as:

- Female Made & Led Enterprises (FMLE) initiative³⁹: a flagship program spearheaded by KCB Bank designed to remove barriers to finance and business growth for women entrepreneurs.
- Tujiajiri program⁴⁰ (youth-focused): The 2Jiajiri program, launched in 2016 by the KCB Foundation, is a youth empowerment initiative tailored to equip out-of-school youth and young entrepreneurs (aged ≤ 35) with vocational skills, entrepreneurship training, and access to finance.

However, inclusion of PWDs in programming is less prominent and less systematically integrated.

- **Existing Interventions for PWDs:** PWDs are acknowledged as a key social identity group within the Foundation's inclusion strategy. Structured support includes:
 - Scholarships
 - Targeted training programs
 - Partnerships, such as with the National Council for Persons with Disabilities (NCPWD)
 - Specific financial products, such as the LPO/LSO financing program for entrepreneurs with disabilities (providing capped business growth financing)
- **Visibility and Integration Issues:** Despite these efforts, programs for PWDs are less visible and less referenced compared to those for women and youth. Several staff noted that although PWDs are considered in policy and program design, actual product offerings and delivery mechanisms remain limited.

4.2.4 Need for a Clearer and Actionable GESI Framework

Interviewees consistently highlighted the need for a more consolidated and actionable GESI framework, particularly regarding operationalizing inclusion for PWDs. One respondent reflected:

"It may not be 100% fully there, but we have in our inclusion strategy PWDs as one of the key social identity groups. We also have structured interventions to support persons with disabilities within the group and our financial sector."

Another respondent emphasized the lack of integration between policy and implementation:

³⁹ [Empowering Female Made & Led Entreprises KCB's Commitment to Financial Inclusion](#)

⁴⁰ <https://foundation.kcbgroup.com/programs/2jiajiri/?program=2jiajiri>

"Yes, we have a policy, but I don't think we have a very clear framework on how to operationalize it. Much of what has happened has come from a business perspective and focused mainly on women. We need to recognize that GESI and GEDI require us to consider diversity, not just men, women, boys, and girls, but also other social identities and vulnerabilities."

4.3 Gender gaps in education

An analysis of educational attainment by gender reveals that women MSME owners are more likely than men to have lower levels of education. Specifically, 8.4% of female respondents reported having only primary education compared to 2.4% of males, while 28.6% of women had completed secondary education compared to 24.1% of men. In contrast, male MSME owners are more likely to have higher educational qualifications, with 39.4% having Technical and Vocational Education and Training (TVET) compared to 36.1% of women, and 32.9% holding bachelor's degrees versus 26.9% of their female counterparts (Figure 4.1).

These findings suggest that although women are actively engaged in MSME ownership across all education levels, they remain disadvantaged in terms of access to higher education, which has downstream effects on their business capacity. Lower educational attainment among women can hinder their ability to access formal financing, as it may correlate with:

- Limited financial literacy
- Incomplete documentation
- Restricted professional networks
- Lower confidence in navigating application and compliance processes

The educational gap has broader implications for business performance, scalability, and resilience. Access to finance is often linked to education, as lenders tend to view higher education as a proxy for creditworthiness, business acumen, and management capability. Entrepreneurs with TVET or university-level education are typically better equipped to develop strong business plans, manage operations effectively, and understand financial products, giving them an edge in securing loans or attracting investment.

Consequently, male MSME owners, by virtue of having higher educational attainment, are more favourably positioned to access credit and financial services, further reinforcing existing gender disparities in business growth and economic inclusion.

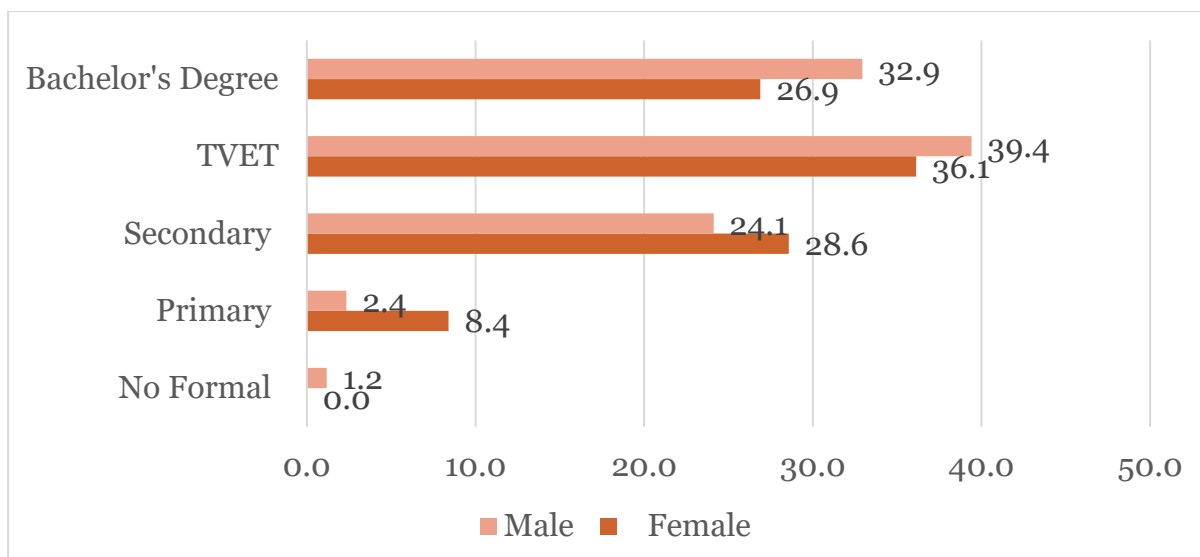


Figure 4.2: Gender differences in educational attainment among MSMEs

Further analysis reveals that 36.5% of respondents believe that limited access to education hinders women and other marginalized groups from accessing financing, underscoring the critical role of education in promoting financial inclusion. This finding aligns with secondary data, which shows that lower educational attainment is often associated with financial illiteracy, weaker business networks, and a diminished ability to meet formal lending requirements, barriers that disproportionately affect women, youth, and persons with disabilities.

A deeper disaggregation reveals notable gender-based differences in perception. Interestingly, 42% of male respondents believe that educational limitations are a major barrier to financial access for women and marginalized groups. This suggests that men are more likely to recognize structural inequalities, particularly in the education-finance nexus, that hinder the participation of underrepresented groups in entrepreneurship and formal lending systems.

In contrast, only 28.6% of female respondents identified limited education as a key barrier to accessing finance (Table 4.3). While women do acknowledge the importance of education, their lower agreement rate may reflect a broader perspective, where other constraints such as gender-based discrimination, lack of collateral, limited mobility, or restrictive social norms are viewed as equally or even more significant barriers.

These differing perceptions highlight the complex, intersecting nature of exclusion, where education is one of several critical factors shaping access to finance, and where experiences and recognition of barriers vary by gender.

Table 7.3: Perception on limited education on access to resources

Extent of agreement	Female (%)	Male (%)
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Agree	28.6	42.4
Disagree	15.1	10.6
Neutral	21.0	24.7
Strongly Agree	25.2	20.0
Strongly Disagree	10.1	2.4

Source: Field Survey data, 2025

4.4 Leadership, participation and representation of marginalised groups

4.4.1 Women in Leadership: Presence Without Power

Despite women’s presence in leadership spaces, their roles are often low-profile, symbolic, or supportive, rather than positions with real decision-making authority. In **Narok**, participants noted:

“Due to the Affirmative Action Act, women are elected or appointed to some positions. However, these are usually passive or low-profile roles without significant decision-making power, more about supporting men’s directions.”

Women in **Kajiado** echoed this, explaining:

“We take leadership roles in church, chamas, and women’s groups. At the broader community level, however, women’s leadership is not very welcomed.”

Similarly, in **Nakuru**, male respondents acknowledged women’s growing visibility in select spaces:

“Women are starting to take up leadership roles, especially in church groups and women’s chamas. But in most community-level decisions, you’ll still find mostly men.”

Leadership at higher levels, such as chiefs, elected officials, or key policy roles, remains rare and often contested for women.

4.4.2 Perceptions of Women’s Leadership: Cultural and Social Barriers

Community attitudes toward women in leadership are deeply influenced by cultural norms and stereotypes, often undermining women’s competence and authority.

In **Narok**, youth explained:

“The majority of the community does not believe in women leadership and has no confidence in a Maasai woman running a successful business. However, women from urban centres are starting to emerge as business leaders.”

In contrast, women in **Turkana** pushed back against these stereotypes:

“Women are better at business skills and will be more disciplined to run a business. A married man is less likely.”

Yet even as women recognize their own potential, they also acknowledge the significant hurdles they face. As a woman in **Kajiado** noted:

“What limits us is the retrogressive cultural beliefs in our community.”

Even when women possess the necessary skills and qualifications, their leadership is often questioned or dismissed, with their success attributed to male support rather than their own merit.

4.5 Access and control over resources

4.5.1 Gendered Control of Resources and Decision-Making

Across all counties surveyed, resource control remains predominantly male-dominated, with women’s access to land, finances, and other productive assets severely limited. In Narok, a women’s focus group discussion (FGD) summarized the dynamic succinctly:

“The husband makes decisions on resources and financial allocations...”

In Kajiado, women explained how cultural norms constrain their decision-making authority:

“In the Maasai culture, men are the decision-makers and control resource allocations. As women, we are not allowed to make any decision on resource allocation, especially issues of land, finances, and even livestock. It is only milk we can take charge of.”

In **Nakuru**, male participants affirmed similar norms:

“The family head, the man, controls land, labour, and financial records.”

This widespread pattern of male control limits women’s economic autonomy and access to collateral, both of which are crucial for securing credit and investing in climate-smart technologies (CSTs).

4.5.2 Barriers to Financial Access for Women and Youth

Women’s access to financial services is hindered by stringent collateral requirements, information gaps, and the need for male approval.

In **Kajiado**, women shared:

“We have never heard of unsecured loans. When you go to the bank, they ask us to bring our husbands to be guarantors.”

In **Garissa**, similar sentiments were echoed:

“KCB bank wants collateral even on the loan they say is for women. They check for sofa sets, chairs in the house, or business assets. We are here for business, not to buy expensive household items to use as loan guarantees.”

In **Narok**, youth added:

“Their access to financial services is limited by lack of collateral, lack of adequate information, and lack of power to make household-level decisions.”

The flow of financial and technological information is often male-dominated, with women largely reliant on men for access to opportunities, further deepening gender-based exclusion.

4.5.3 Findings from Business Leaders and Key Informants

Key Informant Interviews (KIIs) with MSME business leaders corroborated the community-level findings. They emphasized that unequal access to financial resources, business information, and networks continues to limit the economic empowerment of women, youth, and persons with disabilities (PWDs).

Women and youth consistently report:

- Limited collateral
- Restricted access to training, mentorship, and business networks
- Exclusion from high-value opportunities

For PWDs, these challenges are compounded by mobility and communication barriers, further restricting access to CST financing and support.

In Turkana and Kajiado, many respondents were unaware of available climate-smart funding mechanisms, indicating information asymmetry that disproportionately affects marginalized groups.

4.5.4 Deep-Rooted Gender Norms and Cultural Barriers

Patriarchal norms continue to restrict women’s economic and leadership agency across multiple counties.

In **Kajiado**, women reflected on the cultural fear surrounding female empowerment:

“Our men believe that when a woman gets money, she will be disobedient and go out of the home or ask for divorce.”

In **Narok**, youth observed:

“Leadership is believed to be a man’s role. The community is sceptical about women in leadership unless they are highly educated or come from respected families.”

In **Turkana**, traditional roles were challenged but acknowledged:

“In Turkana, it’s a taboo for women to lead. Slowly things are changing though, through education.”

These beliefs limit women’s participation in business and expose them to social backlash when attempting to lead or succeed outside prescribed gender roles.

4.5.5 Gender Norms and Business Participation

Business leaders noted that gender norms strongly influence women’s access to CSTs and participation in enterprise. Across counties, a prevailing perception is that businesses requiring technical expertise or substantial investment are “men’s work.” Women are often confined to:

- Low-paying, low-skill jobs
- Domestic roles that limit time for business operations
- Sectors with low growth potential

In Maasai and Somali communities, male-dominated land and asset ownership further restricts women’s ability to secure loans. Additionally, women’s leadership is often resisted, with some male employees reportedly unwilling to take instructions from female supervisors. Young women who show ambition in business may face social stigma or be accused of neglecting family responsibilities. In the counties investigated resource control is widely vested in the hands of men.

4.6 Access to climate smart technology financing

4.6.1 Barriers to Accessing Financing for Climate-Smart Technologies

Access to financing for CSTs is hindered by several interrelated barriers, with financial literacy, collateral requirements, discriminatory lending practices, and low self-efficacy emerging as the most significant (see Table 4.4).

1. **Lack of Financial Literacy:** Limited financial literacy is perceived as a major constraint. According to the data, 31.6% of respondents identify it as a significant barrier, while 50.2% believe it affects access to some extent. Only 18.2% view it as a minor issue. This indicates that the majority see financial literacy as an essential enabler of access to financing.
2. **Inadequate Collateral:** Collateral requirements present one of the most pressing barriers. About one-third (29.8%) of respondents consider this a major challenge, and a further 61.5% say it affects access to some extent. Only 8.7% view collateral as a minor issue, underscoring its role as a widespread constraint, especially for women and youth, who often lack asset ownership.

3. **Gender-Based Discriminatory Lending:** Discriminatory lending practices based on gender were also flagged. 23.5% of respondents reported that this significantly limits access to financing, while 56.3% indicated it has some effect. 20.2% of respondents considered it a minor issue. These perceptions point to systemic gender biases in credit assessment processes.
4. **Low Levels of Self-Efficacy:** Confidence in one's ability to apply for and manage financing, referred to as self-efficacy, is another key barrier. 25.6% of respondents see this as a major obstacle, and 54.5% believe it has some impact. Only 19.9% view it as a minor concern. This suggests that building confidence and capacity, particularly for marginalized groups, is critical for improving financial access.

Table 8.4: Perceptions on barriers to CST financing

Barriers to CST financing	To a large extent (%)	To a small extent (%)	To some extent (%)
Lack of financial literacy	31.6	18.2	50.2
Inadequate collateral	29.8	8.7	61.5
Gender based discriminatory lending	23.5	20.2	56.3
Low levels of efficacy	25.6	19.9	54.5

Source: Survey data, 2025

4.6.2 Perceived Barriers to CST Financing by Business Type and Gender

Youth-led businesses are perceived to face the most significant challenges in accessing financing for climate-smart technologies (CSTs), with 30.7% of respondents identifying them as the most affected group. This suggests that young entrepreneurs often struggle to secure the capital needed to grow or adopt new technologies. Common barriers cited include limited business experience, lack of collateral, and weaker networks within the financial ecosystem.

Unregistered businesses are the next most affected group, with 20.4% of respondents highlighting them as facing major challenges. These businesses, due to their informal status, are frequently excluded from formal financial systems and public support mechanisms, making them ineligible for loans, grants, or technical assistance. This exclusion significantly restricts their ability to invest in CSTs or scale operations.

Interestingly, persons with disabilities (PwDs), women-owned businesses, and rural-based enterprises were perceived to face comparatively fewer barriers, cited by 19.8%, 16.6%, and 12.9% of respondents respectively. While these groups still encounter challenges, the data suggests they may benefit from targeted financial products, awareness campaigns, or community support mechanisms that mitigate some access barriers.

4.6.3 Gender Differences in Financial Literacy and Confidence

An assessment of financial capability reveals a gender gap in self-perceived readiness to access CST financing. 42.9% of male respondents agree that their business possesses sufficient financial literacy to apply for CST-related funding, compared to only 26.1% of female respondents (Figure 4.2). The gap widens when considering strong agreement, with 18.2% of males strongly agreeing, compared to just 11.8% of females (Figure 4.2).

This disparity suggests that men generally have higher confidence in their financial knowledge and capacity to engage with formal financial systems. Contributing factors may include greater access to financial education, more exposure to business finance, and social norms that encourage men to project confidence in financial matters. Conversely, women may underestimate their capabilities or face structural constraints that limit opportunities to build financial skills.

These findings underscore the need for **targeted financial literacy programs** and **confidence-building initiatives**, especially for women and youth, to enhance equitable access to CST financing.

In contrast, female respondents express significantly higher levels of disagreement regarding their business's financial literacy. Specifically, 22.7% of women disagree and 11.8% strongly disagree that their businesses possess the financial knowledge required to apply for CST financing. These figures are notably higher than those for male respondents, of whom only 6.5% disagree and 2.3% strongly disagree.

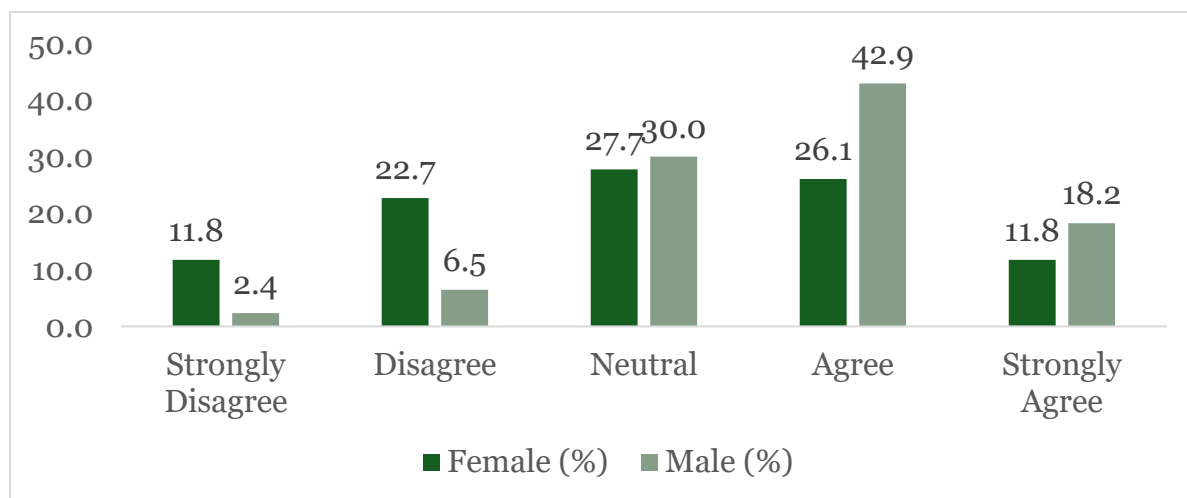


Figure 4.3: Perception of access to climate smart-technology financing by gender

This disparity underscores a perceived gap in financial literacy among women, which may reflect deeper systemic barriers. These include limited access to financial training, fewer business and mentorship networks, and social norms that

discourage women from actively engaging in financial decision-making. The higher level of self-reported inadequacy points to the need for targeted capacity-building efforts that address both practical skills and the confidence needed to navigate financing for climate-smart technologies.

4.7 Intersectional dynamics

The data illustrates how gender intersects with age, disability, marital status, ethnicity, and religion to create layered and compounding disadvantages. Widows, women with disabilities, and ethnic minorities face multiple barriers, including restricted access to land, credit, and information, exclusion from decision-making processes, and heightened vulnerability to economic shocks and gender-based violence (GBV).

For example, in Garissa, clan dynamics and religious norms significantly constrain women's participation in the economy, while youth and persons with disabilities (PWDs) are often excluded from decision-making and resource allocation. In Kajiado, PWDs report being invited to public forums but say their needs are rarely addressed, viewing disability inclusion as symbolic rather than substantive. A striking example came from a Garissa FGD participant who remarked that a nominated MP, "*was selected because she is lame and, in a wheelchair,*", reflecting tokenistic representation rather than genuine inclusion. Additionally, disabled women are often excluded from technical training, based on biased assumptions that they cannot operate CST assets like solar pumps.

FGD discussions reveal that women in arid counties such as Turkana and Garissa face intersecting gender and climate-related risks. Despite the demand for CST-linked solutions like drought or flood insurance, entrenched cultural norms limit women's access to both information and financial decision-making. One participant from Garissa asked, "*What is climate finance... Is it for floods?*", underscoring how gender disparities in education and resource control deepen climate vulnerability.

Moreover, gender and ethnic/clan identity further shape economic roles and opportunities. In Garissa, clan affiliation dictates market access, Somali women, for instance, dominate low-value sectors like miraa trade but are excluded from high-value camel markets controlled by men. In Turkana, refugee women face additional legal and social constraints. One male participant noted, "*Congolese allow their women to do business... Somalis don't.*" Similarly, Maasai women in Kajiado are confined to culturally prescribed activities such as beadwork, while men maintain control over livestock and land, the region's most valuable assets.

4.8 Policy and Institutional environment

Kenya has made significant strides in embedding Gender Equality and Social Inclusion (GESI) in its climate change policy framework.:

The **National Climate Change Action Plan (NCCAP)** integrates gender perspectives, ensuring climate actions are responsive to the needs of all genders. The establishment of a dedicated Climate Change Unit within the State Department for Gender and Affirmative Action demonstrates institutional commitment to gender mainstreaming in climate initiatives.

The National Gender and Climate Change Action Plan (NGCCAP) 2024–2027 is a comprehensive framework developed to ensure that climate action across the country is inclusive and gender-responsive. The plan aims to mainstream gender considerations into all climate change policies, programs, and projects, responding directly to the disproportionate impacts climate change has on women, persons with disabilities, and other marginalized groups (NGEC 2024).

The **Climate Change Act, 2016** provides a robust legal foundation for mainstreaming GESI across government sectors, mandating the creation of climate change units in all ministries, departments, and agencies. Additionally, the **National Policy on Gender and Development (2019)** obliges the State to integrate gender across policies and programs, with a particular focus on empowering women in climate mitigation and natural resource management.

The **National Energy Policy (2025–2034)** emphasizes universal access, renewable energy, and clean cooking technologies. While the policy implicitly acknowledges the importance of gender, there remains scope for more explicit gender mainstreaming to ensure women and marginalized groups fully benefit from the energy transition.

County Climate Change Action Plans (CCCAPs) have been developed through participatory processes at the local level, allowing diverse voices, including women and vulnerable groups, to shape climate priorities. However, outreach remains uneven. For example, in **Narok**, despite a progressive **Climate Change Fund Act (2021)**⁴¹ allocating 3% of the development budget to resilience-building, Maasai women are often excluded from climate-smart agriculture due to patriarchal land tenure systems and lack of collateral⁴².

Several national initiatives also aim to improve equitable access to climate finance. The proposed **Kenya Green Investment Bank** is envisioned to provide

⁴¹ [Narok County Climate Change Fund Act, 2021 - Kenya Law](#)

⁴² [Microsoft Word - Reviewed Narok County Climate Change Action Plan 2023](#)

targeted financial products for green enterprises, with a focus on women, youth, and persons with disabilities (PWDs). The **Green Fiscal Policy Framework** proposes aligning Affirmative Action Funds (e.g., WEF⁴³, YEDF⁴⁴, UWEZO⁴⁵) with green initiatives by offering low-interest loans and support services. Moreover, the Financing Locally Led Climate Action Program (FLLOCA) channels climate finance to community-level initiatives, many of which benefit women's groups and youth.

The agricultural sector is also advancing inclusive climate action. The **Climate Smart Agriculture Implementation Framework** (CSAIF) emphasizes public participation, especially of women and vulnerable groups, in decision-making and promotes equitable access to climate-smart technologies and practices.

A landmark development is the **Persons with Disabilities Act (2025)**⁴⁶, which offers a comprehensive framework for PWD inclusion in all spheres, including education, employment, health, and financial services. The Act presents a critical opportunity for MSMEs, key employers of PWDs, to integrate inclusive training, finance, and entrepreneurship support aligned with Kenya's green development goals.

Despite these advances, several critical GESI gaps remain. These include:

- **Lack of gender-disaggregated data**, limiting the ability to monitor and evaluate differentiated impacts of climate change.
- **Systemic barriers to accessing climate finance** for women, youth, and marginalized groups, including complex application procedures and limited outreach.
- **Underrepresentation in decision-making spaces**, both nationally and locally.
- **Weak implementation of GESI policies** at county and community levels due to poor coordination and limited capacity.
- **Persistent accessibility challenges for PWDs**, especially in accessing climate-smart technologies and information.
- **Unequal access to productive resources**, particularly land and finance, which continues to disadvantage women and other excluded groups.

In sum, while Kenya's climate policy framework is progressive and increasingly inclusive on paper, effective implementation, targeted investments, and institutional coordination are critical to closing remaining GESI gaps and ensuring no one is left behind in the country's climate transition.

⁴³ [Women Enterprise Fund \(WEF\)](#)

⁴⁴ [Youth Enterprise Development Fund \(YEDF\)](#)

⁴⁵ [Uwezo Fund](#)

⁴⁶ [Persons with Disabilities Act - Kenya Law](#)

4.9 Opportunities for gender and social inclusion in climate smart technology facility

4.9.1 GESI Opportunities in Green Lending and CST Financing

A review of the bank's lending policy reveals several Gender Equality and Social Inclusion (GESI) gaps (as outlined in Section 4.2), which present strategic opportunities for innovation in green finance. These include the development of gender-responsive loan products, particularly:

- **Women-focused green loans** targeting solar energy, clean cooking technologies, and climate-resilient agriculture.
- **Youth-friendly financing mechanisms** for renewable energy start-ups, e-mobility ventures, and waste management enterprises.

To support these innovations, there is a clear need to incorporate GESI awareness into staff training (Section 5.11.3), and to amend lending policies to require gender-disaggregated data on green loan beneficiaries. This data is essential for monitoring the impact of climate finance on women, youth, and persons with disabilities (PWDs) (Section 5.31.2).

These measures would align the bank's operations with Kenya's **National Climate Change Action Plan (NCCAP)** and **Sustainable Development Goals (SDGs 5 and 10)** by fostering inclusive finance for marginalized groups and enabling robust monitoring frameworks to track GESI outcomes in green lending.

4.9.2 Opportunities in CST Financing and Microfinance Models

The review also highlights a need for targeted financial products with flexible collateral requirements to support CST adoption. Many respondents pointed to the lack of affordable and accessible finance as a major barrier for marginalized groups. Several strategies can address this:

- Enhancing access to microfinance institutions.
- Building partnerships with rural banks.
- Enabling unsecured group-based loans through community saving groups (chamas).

These approaches are vital to overcoming structural barriers, especially those affecting women and underserved entrepreneurs, who often lack the collateral or formal financial history required by traditional lenders.

4.9.3 Voices from the Field: Narok and Kajiado

Insights from focus group discussions (FGDs) in Narok and Kajiado reinforce these findings. Women expressed a strong interest in adopting climate-resilient

technologies such as solar dryers and irrigation systems but reported facing cultural, informational, and institutional barriers to accessing finance.

For example, in **Kajiado**, women shared:

“We have never heard of unsecured loans. When you go to the bank, they ask us to bring our husbands to be guarantors.”

Despite these barriers, women entrepreneurs showed eagerness to access financing:

“We want to access unsecured loans from as low as KES 50,000 to 100,000 as women in business in Kajiado without being asked to bring our husbands as guarantors.”

Men in Kajiado also acknowledged the importance of chamas, noting:

“Chamas have really helped. Women save together and give each other loans. It builds discipline and business confidence.”

These community-based financial models, particularly chamas, are critical enablers of women's financial inclusion and should be leveraged in the design of GCF-aligned green loan products. Supporting such models will help ensure that green financing reaches women-led MSMEs and contributes to closing persistent gender and social inclusion gaps in climate-smart financing.

Table 9.5: Opportunities for GESI in CSTs among MSMEs

Theme	Female (%)	Male (%)
Access to Finance and Resources	50.0	50.0
Capacity Building and Skills Development	100.0	0.0
Leadership and Strategic Engagement	0.0	100.0

Source: Survey, 2025

4.9.4 Capacity Building, Education, and Strategic Leadership for CST Access and Uptake

Across all female respondents, there was unanimous recognition (100%) of the need for capacity building and advisory support to effectively participate in climate-smart technology (CST) value chains. Respondents emphasized the importance of technical education, leadership training, and foundational knowledge to build confidence and enable meaningful participation in CST-related micro, small, and medium enterprises (MSMEs). Tailored training, mentorship,

and continuous learning were highlighted as critical for addressing barriers to CST financing and enhancing entrepreneurship readiness.

In Turkana and Garissa, Focus Group discussions (FGDs) revealed a growing demand for insurance products that address climate risks, particularly drought and flood coverage linked to CST assets. However, awareness of formal climate insurance mechanisms remains low. For instance, in Garissa, a woman asked:

“What is climate finance... Is it for floods?”

This underscores significant information gaps and the urgent need for targeted outreach and education to build understanding of how insurance can protect climate-related investments.

In Turkana, women highlighted the importance of empowerment through local financial structures such as Village Savings and Loan Associations (VSLAs). These models were seen as effective in encouraging business development and financial literacy:

“We need trainings and awareness on empowerment... VSLAs encourage women to be in business through table banking and train women on how to manage, save, and diversify.”

4.9.5 Strategic Leadership and Gender-Responsive Financing

Leadership and strategic engagement also emerged as key themes, 100% of male respondents emphasized the need for strategic approaches to unlock CST financing. This extends beyond individual leadership capacity to include structured and community-level strategies that support engagement with CST opportunities within MSMEs.

FGDs in Narok and Kajiado highlighted education as a foundational enabler for women’s leadership and agency. Participants noted:

“When a woman is educated, she will be given room to make her own decisions on leading and owning a business.”

Moreover, collective networks such as chamas, SACCOs, and women’s groups were repeatedly recognized as critical incubators for leadership, financial discipline, and peer-based learning. These community-based structures provide a strong foundation for scaling GESI-aligned CST interventions.

4.10 Gender lens on MSMEs and climate (mitigation and adaptation)

The stakeholder consultations conducted as part of the Programme revealed a number of persistent gender-based barriers that limit women entrepreneurs’ full participation in climate-related economic opportunities, particularly in the

MSMEs sector. While MSMEs are central to Kenya’s climate-smart development agenda, women-led enterprises face significant constraints in accessing CST financing a key lever for both climate change mitigation and adaptation.

The role of women entrepreneurs in promoting inclusive economic growth is critical in generating income for themselves and their families, women reinvest in their communities, creating multiplier effects that yield positive socio-economic outcomes. Supporting women’s entrepreneurship contributes directly to reducing gender disparities in employment and plays a vital role in poverty reduction efforts.

Women entrepreneurs are not merely agents of change they are architects of sustainable futures. Their leadership must be recognized and supported to foster a more equitable, inclusive, and climate-resilient future for current and future generations. Creating an enabling environment for women’s empowerment is necessary to facilitate the exchange of knowledge, strengthen innovation, and ensure meaningful participation in climate action

4.11 Strategies to integrate gender in the Programme

The Programme will ensure that Gender Equality and Social Inclusion (GESI) principles are fully mainstreamed and operationalized across all Programme activities, including the establishment and deployment of the Climate-Smart Technology (CST) Facility, technical assistance, digital lending solutions, and capacity-building efforts.

At Programme inception, all staff of executing entities (KCB Bank and KCB Foundation), Programme coordination units, and county-level counterparts will undergo mandatory training on the prevention and response to SEAH, GBV) and on the application of a survivor-centered, gender-responsive Grievance Redress Mechanism (GRM). This GRM will provide confidential channels for reporting SEAH incidents, including toll-free hotlines, anonymous feedback tools, and safe in-person options. These are well captured in the Environmental and Social Framework document.

Clear, accessible information about the GRM procedures will be widely disseminated to ensure all Programme participants, especially women, youth, People with disabilities (PWDs), and other vulnerable groups, are aware of and able to use the system safely.

The Programme will integrate targeted awareness campaigns and training for beneficiaries and KCB field agents to promote women’s financial inclusion, rights awareness, and safe working conditions. The GRM system will be institutionalized within KCB’s lending platforms and operational guidelines to ensure gender-sensitivity and safeguard vulnerable stakeholders throughout the loan lifecycle.

5 Summary of Key Findings and Recommendations

5.1 Key Findings

5.1.1 Overview of Gender Equality and Social Inclusion (GESI) in CST Financing

The study examines the multiple, intersecting barriers faced by women, youth, persons with disabilities (PWDs), and other vulnerable groups in accessing financing for climate-smart technologies (CST) among MSMEs across Kenya. Data reveals a persistent gender and social inclusion gap, with men constituting the majority of MSME owners and marginalized groups significantly underrepresented.

5.1.2 MSME Ownership and Representation Gaps

Men own 53.5% of MSMEs compared to 37.4% for women, with only 3.8% of MSME owners reporting disabilities. This demonstrates clear gender and inclusion disparities in business ownership. The underrepresentation of women, youth, and PWDs is a foundational barrier to equitable access to CST financing.

5.1.3 Educational Disparities and Financial Literacy

Socio-cultural norms and systemic inequities limit access to education for women and vulnerable groups. Women are more likely to have only primary or secondary education, impacting their financial literacy and ability to meet lender requirements. In contrast, men tend to possess higher education levels, including TVET and university degrees. Only 26.1% of women report confidence in financial literacy, compared to 42.9% of males, illustrating a critical capability gap.

5.1.4 Institutional and Policy Barriers

Current institutional credit policies and manuals lack robust GESI provisions. There are no targeted efforts or differentiated criteria to benefit women, youth, or PWDs, and collateral requirements do not consider alternative options accessible to marginalized groups. While green lending provisions exist, they are not linked to gender-responsive measures or incentives, perpetuating limited access to CST loans for excluded populations, especially in rural and arid regions.

5.1.5 Cultural Norms and Patriarchal Structures

Cultural and patriarchal norms restrict women's economic participation and leadership, particularly in pastoralist communities (e.g., Maasai, Somali). Ownership of land and other key assets is predominantly male, constraining women's ability to use collateral and independently access finance. Women are commonly relegated to supportive roles and may require male guarantors for credit, further perpetuating dependence and exclusion. Intersectional factors, such as ethnicity, disability, and marital status, intensify these disadvantages.

5.1.6 Barriers Unique to Youth and PWD-Led Businesses

Youth-led enterprises face compounded financing barriers due to lack of experience, collateral, and professional networks. PWDs report tokenistic inclusion, with limited tailored access to training or targeted climate finance initiatives, resulting in their persistent marginalization.

5.1.7 Opportunities to Enhance GESI in CST Financing

Despite these overlapping barriers, there are clear entry points to promote GESI in climate-smart technology financing:

- **Product and Capacity Development:** There is strong demand from women and marginalized groups for CST adoption, but access requires financial products tailored to their needs and dedicated capacity-building, including technical training and financial literacy programs.
- **Community-Based Financial Structures:** Mechanisms like chamas and SACCOs serve as effective platforms for group guarantees and microloans, particularly benefiting women and excluded groups in rural areas.
- **Climate Risk Insurance:** There is latent demand for insurance products linked to CST assets, especially in climate-vulnerable regions, though awareness and availability are low.
- **Leadership and Empowerment:** Leadership development initiatives and technical support can empower underrepresented entrepreneurs to better access and utilize CST finance.

5.2 Specific interventions throughout the Programme

The impacts of climate change affect women and men differently due to their social roles and unequal access to resources. Without targeted measures, these inequalities risk deepening, thereby undermining the goals of inclusion and resilience. Thus, the systematic integration of gender considerations from the early stages of Programme design is a critical condition to ensure the effectiveness, equity, and sustainability of climate interventions.

The persistent gender-related challenges identified during consultations with stakeholders, and strategic opportunities to bridge gender gaps in access to climate finance, will be taken into account in the Gender Action Plan (GAP). It is therefore crucial to identify, from the earliest stages of the Programme, the actions that require specific gender attention. This approach helps prevent exclusion, strengthen equitable participation, and design gender-responsive financing mechanisms.

Table 5.10: Entry point for gender specific interventions

Programme Activities	Entry point	Gender Actions (Interventions for Gender-Equity)	Relevant actors
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Outcome 1. A. Climate resilience, food security, and water security are enhanced through the scaled-up adoption of CSTs by the hardest-to-reach MSMEs and farmers; B. GHG emissions are reduced through the adoption of solar-powered CSTs by hardest to reach MSMEs and farmers			
Output 1.1: A Climate-Smart Credit Line (CST) is established and operationalized by KCB for inclusive on-lending to hardest-to-reach.			
1.1.1 Establishing inclusive CST facility by blending \$30M loan from the GCF and \$50M loan from KCB for adoption CSTs by farmers and MSMEs with eligibility criteria covering a broad range of qualified CSTs.	Yes	Develop and roll out CST loan products that are gender-responsive with flexible collateral requirements (e.g., group guarantees, movable assets) tailored for women, youth, and PWDs.	KCB Bank
1.1.2 On-lending to farmers, MSMEs, and households with concessional terms.	Yes	Integrate guidelines to ensure that loan disbursement decisions explicitly consider gender disparities and promote equitable representation of women within the CST facility	KCB Bank
1.1.3 Use improved CAFI tool and GHG tracking systems to measure mitigation outcomes and adaptation results.	Yes	Integrate gender-disaggregated indicators into the CAFI tool to capture differentiated adaptation outcomes for women and men, particularly among women-led MSMEs, female farmers adopting CSTs etc.	KCB Bank
Output 1:2: Risk mitigation mechanism (RMM) for CST is deployed.			
1.2.1 Leverage a \$10M guarantee from the GCF to underwrite the CST, reducing insurance costs and enabling broader access to financing.	Yes	Integrate a gender-sensitive approach into KCB staff training to address barriers faced by women-led MSMEs in accessing the CST guarantee mechanism Conduct financial literacy workshops across marginalized counties and roll out mobile-based and community-led financial education campaigns	KCB Bank KCB Foundation
Outcome 2: Climate-smart technologies are effectively disseminated to the hardest-to-reach MSMEs and farmers.			
Output 2.1: Climate Impact and Risk Assessment Framework (CIRAF) is strengthened in KCB and promoted across Kenya's banking sector.			
2.1.1 Enhance CAFI tool for climate impact and risk assessment for evaluating	Yes	Integrate gender-responsive metrics into the enhanced CAFI tool to assess climate risks and adaptation	KCB Bank

climate risks and CST eligibility in KCB operations.		needs of women-led MSMEs and female farmers Develop mentorship platforms for marginalized groups on CSTs	KCB Foundation
Activity 2.1.2 Train KCB personnel and agents to apply climate risk assessment frameworks and CAFI tool for financing decisions, ensuring effective deployment of CST-linked credit lines.	Yes	Develop and deliver training for KCB staff on CAFI and climate risk assessment, including modules on gender-specific barriers to climate-smart credit.	KCB Bank KCB Foundation
Activity 2.1.3 Digital Lending Solutions (DLS) are integrated for CST in KCB platforms, with real-time climate impact monitoring, compliance tracking, and reporting.	No		
Output 2.2: CSTs are promoted through establishing system for climate information dissemination, capacity building and improved market linkage.			
2.2.1 Provide technical assistance to farmers, MSMEs, households, and local authorities to support CST adoption, focusing on the efficiency, cost-benefit, and climate impact benefits of CSTs, promoting youth participation.	Yes	Provide targeted technical assistance to women-led MSMEs and female farmers to support CST adoption and overcome gender-specific barriers	KCB Bank KCB Foundation
2.2.2 Strengthen market linkages and partnerships to ensure CST supply chains reach underserved regions, addressing logistical barriers, improving affordability.	Yes	Engage women-led cooperatives and entrepreneurs in CST supply chains to improve their access and participation.	KCB Bank KCB Foundation
Outcome statement 3: The climate impact of CSTs is sustained through enhanced regulatory frameworks and effective knowledge dissemination.			
Output 3.1: Policies and standards are formulated for CSTs adoption.			
3.1.1 Supporting CST adoption through policymaking initiatives for tailored credit products.	Yes	3.1.1.1 Revise KCB's credit and risk policies to explicitly include GESI with tailored lending criteria and alternative collateral for marginalized groups	KCB Bank KCB Foundation

		3.1.1.2 Introduce GESI scorecard and KPIs into staff performance reviews to incentivize and ensure gender-responsive lending practices.	
Output 3.2: Knowledge disseminated on CSTs adoption by farmers and MSMEs.			
3.2.1 Ensure CST and climate impact data collection, information management, and knowledge dissemination by establishing partnerships and creating learning mechanisms.	Yes	3.2.1 Organize a workshop on climate investment strategies that incorporate gender considerations, engaging stakeholders including financial institutions and women's organizations, PWD etc.	KCB Bank KCB Foundation
3.2.2 Scaling up CST loans through collaboration with regulators and financial market representatives in Kenya.	Yes	3.2.2 Mainstream GBV and SEAH risk mitigation and response mechanisms in Programme design and delivery	KCB Foundation

5.3 Way Forward

The findings underscore the urgent need to address intersecting Gender Equality and Social Inclusion (GESI) barriers that hinder equitable access to climate-smart technology (CST) financing among MSMEs. Tackling educational, institutional, and socio-cultural constraints, while leveraging community-based financial models and targeted capacity-building, is critical to unlocking inclusive climate finance. Empowering marginalized entrepreneurs through leadership development, technical training, and financial literacy programs is key to ensuring they can effectively access, manage, and benefit from CST financing. Strategies for strengthening GESI integration in CST finance are outlined in Table 5.1.

Table 5.11: Table of recommendations

GESI area	Proposed recommendations	Entity
Develop gender responsive and inclusive financial products	KCB to enhance the design of CST loan products that incorporate flexible collateral options such as group guarantees and acceptance of movable assets to accommodate women, youth, and PWDs.	KCB Bank KCB Foundation Central Bank of Kenya National Treasury and Economic Planning

<p>Policy and legal reforms</p>	<ul style="list-style-type: none"> • Interest rate incentives and differentiated pricing can be introduced to encourage adoption of climate-smart technologies in MSME business products and services. • Co-design inclusive loan products, update collateral requirements, and promote alternative guarantees. • Incorporate climate-risk insurance with CST loans, in arid and flood-prone regions, to enhance resilience and reduce financial vulnerability. • Strengthening budget reporting where budget reporting methodologies incorporate data disaggregated by gender 	<p>KCB Bank</p> <p>KCB Foundation</p> <p>Central Bank of Kenya</p> <p>National Treasury and Economic Planning</p> <p>Micro and Small Enterprises Authority (MSEA)</p>
<p>Strengthen internal policy frameworks and data systems</p>	<ul style="list-style-type: none"> • Implement gender-disaggregated data collection and reporting to track the impact of CST financing on marginalized groups. • Enforce gender-disaggregated reporting on loan disbursements and CST adoption rates 	<p>KCB Bank</p> <p>KCB Foundation</p>
<p>Build institutional capacity and awareness</p>	<ul style="list-style-type: none"> • Strengthen GESI training for KCB loan officers and financial staff should be implemented to improve cultural competency and gender-sensitive risk assessment. • Implement and expand existing financial literacy and CST technical training programs leveraging mobile platforms and community networks to reach women, youth, and PWDs. • Establish mentorship programs to support PWD entrepreneurs in overcoming mobility and information barriers. 	<p>KCB Bank</p> <p>KCB Foundation</p> <p>State Department for Gender and Affirmative Action</p> <p>State Department for MSMEs Development</p> <p>National Gender and Equality Commission (NGEC)</p>
<p>Leverage community-based financial structures</p>	<p>Partnerships with chamas, SACCOs, and women’s groups should be strengthened to facilitate access to unsecured microloans for CST investments.</p>	<p>KCB Bank</p> <p>KCB Foundation</p> <p>Loans and savings groups</p>

<p>Promote inclusive leadership</p>	<ul style="list-style-type: none"> • Support for women’s leadership through leadership training and creating safe spaces for marginalized groups to influence CST policy and programming. • Support programs that enhance women’s and youth’s business and technical skills 	<p>KCB Bank</p> <p>KCB Foundation</p> <p>State Department for Gender and Affirmative Action</p> <p>State Department for MSMEs Development</p>
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Annex 1: A summary of reviewed documents

Name of document	Key issues	Commitments	Policy action areas
<p>1. Sessional Paper No. 02 of 2019 on National Policy on Gender and Development</p>	<ul style="list-style-type: none"> • Women are overrepresented in the informal economy and subsistence agriculture yet underrepresented in formal employment and leadership positions. • Lack of access to collateral (especially land) and limited financial literacy disproportionately affect women and youth in accessing credit and loans. • Women also work longer hours on average due to unpaid care work, impacting their participation in entrepreneurial ventures. 	<ul style="list-style-type: none"> • Strengthening affirmative action funds like the Women Enterprise Fund (WEF), Youth Enterprise Development Fund (YEDF), and Access to Government Procurement Opportunities (AGPO). • Capacity-building for women entrepreneurs to access and manage financial services. • Developing gender-responsive financial products and services, especially for women and PWDs. • Mainstreaming gender into economic development planning at both national and county levels. • Legal and policy frameworks such as the 	<ul style="list-style-type: none"> • Promote equal access to and control over economic opportunities and resources. • Develop financial literacy programs with gender-sensitive content. • Tailor loan and credit schemes to address gender-specific barriers (e.g., lack of land titles, lower financial history, caregiving roles). • Implement monitoring and evaluation frameworks that track gender-specific outcomes in access to finance.

		Matrimonial Property Act and the Land Registration Act are supported to enhance women's ability to own assets, which strengthens their ability to access finance.	
GCF framework	<ul style="list-style-type: none"> • Women and marginalized groups often lack access to collateral, land ownership, and financial assets, which are prerequisites for formal financing. • There's a need to ensure equal access to financial, physical, natural, and technological resources for CST adoption. • The framework identifies persistent gendered power imbalances in decision-making at both household and institutional levels. 	<ul style="list-style-type: none"> • The framework emphasizes the inclusion of women, youth, elderly, persons with disabilities, widows, and ethnic minorities. • It recognizes that multiple layers of disadvantages such as gender, disability, and economic status can compound barriers to access. • The goal is to uncover differential vulnerabilities and capacity gaps in adapting to climate change and accessing finance. 	<ul style="list-style-type: none"> • Calls for actions to increase women's participation in governance, finance committees, and Programme management structures. • Regularly track and report gendered impacts using specific indicators tied to financing outcomes.

Sources: Authors' conceptualization

Gender and Social Inclusion Assessment Report for the
Programme

*“Scaling climate-smart solutions for hardest-to-reach
MSMEs and farmers in Kenya (CST Facility)”*

Submitted to:



On behalf of:



Submitted by:



August 2025 (updated Nov 2025)

Gender and Social Inclusion Action Plan

Based on the findings of the GESI Assessment, this Gender and Social Inclusion Action Plan has been developed to provide a practical and targeted roadmap for mainstreaming gender equality and social inclusion throughout the project’s lifecycle. The plan outlines specific, measurable, and context-responsive interventions aimed at addressing the structural, institutional, and cultural barriers that limit the participation of women, youth, and persons with disabilities (PWDs) in climate-smart technology (CST) financing and adoption. Ongoing learning, monitoring, and adaptation will ensure its responsiveness and sustainability. Tracking of the outcomes will be done through the outcome harvesting methodology to be able to capture the project outcomes.

Output 1.1: A Climate-Smart Technology Facility is established and operationalized by KCB for inclusive on-lending to hardest-to-reach.						
Activity	Indicator	Baseline	Target	Timeline	Responsibility	Cost (\$)
1.1.1 Conduct a baseline survey of the gender gap at each target zone.	# of baseline surveys undertaken	0	1 baseline survey is undertaken to establish robust baseline and monitoring mechanisms	Y1	KCB Bank KCB Foundation	20,000
1.1.2 Develop a Programme-level Gender Framework aligned to GCF Gender Policy, 2X Green toolkit, promoting gender mainstreaming at all activities financed by the Programme. The Gender Framework will include a SEAH Policy Statement aligned to the provisions of the ESMF’s Annex 15 and the GCF SEAH Policy.	# of Gender Frameworks developed	0	One Gender Framework developed	Y1-Y2	KCB Bank KCB Foundation Kenya Red Cross Society	30,000
	# of training manuals disseminated	0	At least 2 training manuals are developed			
	# of KCB personnel trained on the Gender Framework	0	At least 40 KCB staff are trained on the Gender and SEAH Framework (with at least 40% female participation)			
1.1.3 Revise credit and risk policies to include GESI provisions and integrate SEAH risk screening into loan approval processes	# of revised policies with GESI provisions and SEAH prevention clause approved and in use	0	At least 2 revised policies with explicit GESI targets adopted.	Y1–Y5	KCB Legal/Policy Department, Safeguards	5,000

					Team, Credit officers	
1.1.4 Introduce GESI scorecard into staff KPIs and performance reviews, integrating sector-level data collection to track inclusive lending across all target sectors.	Percentage of staff with GESI indicators in performance evaluations, disaggregated by sector	0%	100% of loan offers have GESI KPIs integrated, with specific weighting for sector diversity.	Y1–Y2	KCB Bank	5,000
1.1.5 Develop and roll out gender-responsive CST loan products with flexible collateral requirements (Concessional loans)	Percentage of CST loans tailored to women-led MSMEs	0%	At least 30% CST financing loans accessed by women-owned and women-led MSMEs ¹ (including a 10% target for female headed households) across all sectors financed.	Y1–Y5	KCB Bank	5,000
1.1.6 Partner with community-led savings groups / village savings and loans associations (VSLAs) to expand CST micro-financing access	Percentage of women accessing CST loans through SACCOs and community groups/ village savings and loans associations (VSLAs)	0%	At least 30% of women accessing CST loans is through SACCOs and community groups/ village savings and loans associations (VSLAs)	Y1–Y5	KCB Foundation	5,000
1.1.7 Integrate gender-disaggregated indicators into the CAFI tool to capture differentiated adaptation outcomes for women and men, particularly among women-led MSMEs, female farmers adopting CSTs etc.	Percentage of adaptation outcome metrics in the CAFI tool that are disaggregated by gender (e.g., resilience, productivity, income stability, time savings)	0%	At least 90% of adaptation metrics in the CAFI tool are disaggregated by gender and household headship	Y1–Y5	KCB Foundation	5,000
Output 1.2 : Risk mitigation mechanism (RMM) for CST Facility is deployed.						
1.2.1 Integrate a gender-sensitive approach into KCB staff training to address barriers faced by women-led	Percentage of CAFI tool indicators and user guidelines that include gender-	0%	At least 50% of the CAFI tool indicators and training materials include gender-disaggregated and	Y1–Y5	KCB Bank	15,000

¹ Women-owned MSMEs are ones with at least 51% owned by one or more women. In addition, these women also control the business. Women-led MSMEs have ≥ 20% owned by a woman or women AND has (i) a woman as CEO/COO and (ii) a board of directors with at least 30% women.

MSMEs in accessing the CST guarantee mechanism	disaggregated data and gender-responsive adaptation and mitigation metrics		gender-responsive metrics, as documented in the enhanced CAFI tool and stakeholder workshop report.		KCB Foundation	
	Percentage of KCB staff trained on CAFI tool	0%	At least 30% of staff trained are women			
1.2.2 Conduct workshops across marginalized counties and roll out mobile-based and community-led financial education campaigns	Percentage of women trained annually on green business basics covering business registration, development of business plans, financial management, product development	0%	At least 30% participants trained per year are women	Y1-Y5	KCB Bank KCB Foundation	60,000
	# of new women-led green businesses formally registered.	0	At least 100 new businesses registered.			
	% of women entrepreneurs trained and using formal financial record-keeping.	0%	At least 80% of women entrepreneurs trained adopt formal record-keeping			
	# of B2B matchmaking events to connect women entrepreneurs	0	At least 10 B2B events organized			
	# of MoUs with local women business associations or cooperatives entered into	0	At least 10 MoUs signed with local women business associations or cooperatives			
Output 2.1 - Climate Impact and Risk Assessment Framework (CIRAF) is strengthened in KCB and promoted across Kenya's banking sector.						
2.1.1 Integrate gender-responsive metrics into the enhanced CAFI tool to assess climate risks and adaptation needs of women-led MSMEs and female farmers	Percentage of gender-responsive metrics integrated into the enhanced CAFI tool to assess climate risks and adaptation needs of women-	0%	At least 80% gender-responsive metrics included in the enhanced CAFI tool by the end of Year 2, validated through a multi-stakeholder workshop.	Y2-Y5	KCB Foundation KCB Bank	15,000

	led MSMEs and female farmers, youth and PWD.					
2.1.2. Develop and deliver training for KCB staff on CAFI and climate risk assessment.	# of KCB personnel trained	0%	At least 50 staff are trained (with at least 40% of staff trained being female)	Y2-Y5	KCB Foundation KCB Bank	20,000
Output 2.2: CSTs are promoted through establishing system for climate information dissemination, capacity building and improved market linkage.						
2.2.1 Conduct awareness campaigns	# of awareness campaigns conducted	0%	Quarterly awareness campaigns on CST conducted	Y1-Y5	KCB Bank KCB Foundation	25,000
	Percent of women participating in the awareness campaigns	0%	At least 40% of participants are women			
2.2.2 Conduct financial literacy workshops across marginalized counties	# of women/youth/PWDs trained annually	0	At least 5,000 participants trained per year (with at least 30% women participants)	Y1-Y5	KCB Bank KCB Foundation	30,000
	Percentage of trained participants applying for CST related financial products	0%	At least 30% of trainees apply for CST financing	Y1-Y5	KCB Bank KCB Foundation	5,000
2.2.3 Roll out web/mobile-based and community-led financial education campaigns	# of users reached	0	At least 100,000 users reached	Y2-Y5	KCB Foundation	8,000
2.2.4 Develop mentorship platforms for marginalized groups on CSTs	# of mentorship sessions held annually	0	Conduct at least 40 mentorship sessions held (with at least 30% women participants)	Y2-Y5	KCB Bank KCB Foundation	40,000
	# of success stories documented	0	At least 15 Most Significant Change (MSG) stories documented from the mentees	Y3-Y5	KCB Bank	15,000

					KCB Foundation	
	# of champions trained (disaggregated by gender, age, disability)	0	At least 50 champions trained to support women's leadership in CST financing	Y2-Y5	KCB Bank KCB Foundation	20,000
2.2.5 Design a modular training program covering green business development, access to finance, and CST adoption	# of modules developed	0	3 modules are developed	Y2-Y5	KCB Bank KCB Foundation	15,000
	# of participants	0	At least 3000 female, youth and PWD entrepreneurs are trained			
2.2.6 Engage women groups and entrepreneurs in CST supply chains to improve their access and participation.	Percentage of women-led CST vendors and women-focused organizations included in the vendor list and engaged through collaboration platforms.	0%	At least 30% of vendors on the comprehensive CST vendor list are women-led businesses or organizations focused on women's empowerment.	Y2-Y5	KCB Bank KCB Foundation	5,000
2.2.7 Mainstream GBV/SEAH risk mitigation and response mechanisms in CST project design and delivery and establish and institutionalise free Tip-Off and reporting systems with multiple access channels e.g. toll free hotlines, website, email etc.	GRM mechanism, with a protocol on SEAH identification and prevention developed.	0	One comprehensive GRM with survivor-centred SEAH prevention, identification, and response protocols operationalized with access to medical, psychosocial, and safety support services	Y1-Y5	KCB Bank KCB Foundation Kenya Red Cross Society	75,000
	# of GBV/SEAH resource materials developed.	0	At least 3 GBV/SEAH resource materials have been developed and disseminated.			
	Percentage of staff trained on SEAH Prevention	0%	100% of Programme Staff and implementing partners trained on GBV/SEAH prevention (with at least 30% being female), and with			

			annual mandatory refresher training			
	Number of GBV/SEAH referral pathways developed	0	47 Referral pathways mapped and operationalised (1 per county) linking to medical, psychosocial, legal aid, and safety services			
	# of workshops/refresher training sessions conducted on GBV/SEAH risks	0	12 sensitization workshops on GBV/SEAH risks (with at least 30% female participants). Annual refresher training for all staff and implementing partners			
	% of received loan applications that undergo SEAH risk screening process	0	100% of loan applications received undergo SEAH risks screening process			
	% of approved loan contracts with mandatory SEAH prevention and response clauses	0	100% of loan contracts have mandatory SEAH prevention and response clauses			
	% of SEAH grievances received and responded to within 24-48 hours	0	100% of grievances are responded to within 24-48 hours			
	% of SEAH survivors informed and supported	0	100% of survivors are informed and receive relevant support (medical, counselling, legal)			
	% of referred cases that are reported to the authorities	0	100% of referred cases are reported to the administrative authorities			

Output 3.1: Policies and standards are formulated for CSTs adoption.

3.1.1 Facilitate national policy dialogues with key stakeholders (e.g., National Treasury, NGECC, MSEA, MoE, MoITC)	Number of multi-stakeholder dialogues and actions agreed	0	3 national policy forums held	Y2–Y3	KCB Foundation, Relevant State Departments	30,000
3.1.2 Participate in national climate, gender, and MSME policy review platforms (e.g., Budget Hearings, SDG Forums, Gender Sector Working Group)	Number of policy engagements and inclusion of CST-GESI provisions	0	6 national policy review processes influenced	Y2–Y5	KCB Foundation,	10,000
3.1.3 Support harmonization of county CST action plans with national gender and green finance policies	Number of county plans revised with GESI-CST lens	0	5 counties supported to align with national policy	Y3–Y5	KCB Foundation	10,000
3.1.4 Review and operationalize the Persons with Disabilities (PWD) Act, 2025 across CST policies and financing frameworks	PWD Inclusion Plan validated and in use	0	1 PWD Inclusion Action Plan developed	Y2	KCB Foundation	10,000

Output 3.2: Knowledge disseminated on CSTs adoption by farmers and MSMEs.

3.2.1 Develop a Programme Communication and Outreach Strategy	# of communication and outreach strategy developed	0	One communication and outreach strategy developed	Y1	KCB Foundation	10,000
3.2.2 Launch a digital campaign targeting youth entrepreneurs and urban MSMEs (e.g., Twitter/X, TikTok, YouTube)	Reach and engagement metrics from digital platforms	0	50,000 digital impressions per quarter	Y2–Y5	KCB Bank KCB Foundation	5,000
3.2.3 Design and distribute GESI-friendly CST financial product materials (e.g., posters, radio spots, flyers, animations, social media content)	Number of materials produced and reach statistics by channel	0	100,000 people reached via multimedia platforms (with at least 30% female engagement)	Y1–Y5	KCB Foundation	5,000

3.2.4 Conduct learning workshops, targeted presentations for dissemination of lessons learned to key stakeholders	Number of learning workshops conducted	0	At least 12 learning workshops conducted (with at least 30% female participation)	Y2-Y5	KCB Bank KCB Foundation	60,000
3.2.5 Annual outcome harvesting to assess GESI progress	Number of GESI outcomes harvested and documented	0	1 Annual report on GESI outcomes	Y2-Y5	KCB M&E Unit	12,000
3.2.6 Biannual review of gender-disaggregated and sector-disaggregated CST financing data	# of reviews completed, and data sets published	0	1 review per year	Y2-Y5	KCB M&E Unit	15,000
3.2.7 Create and manage an online knowledge portal on CST financing for women, youth and PWDs	# of portals launched	0	1 portal launched	Y2-Y5	KCB Bank	10,000
	# of users accessing the portal	0	At least 10,000 users (with at least 30% female engagement)		KCB Foundation	
Total GAP Budget						600,000