



**GREEN
CLIMATE
FUND**

Meeting of the Board
6 – 8 July 2019
Songdo, Incheon, Republic of Korea
Provisional agenda item 20

GCF/B.23/02/Add.07

14 June 2019

Consideration of funding proposals - Addendum VII

Funding proposal package for FP113

Summary

This addendum contains the following seven parts:

- a) A funding proposal titled “TWENDE: Towards Ending Drought Emergencies: Ecosystem Based Adaptation in Kenya’s Arid and Semi-Arid Rangelands”;
- b) No-objection letter issued by the national designated authority(ies) or focal point(s);
- c) Environmental and social report(s) disclosure;
- d) Secretariat’s assessment;
- e) Independent Technical Advisory Panel’s assessment;
- f) Response from the accredited entity to the independent Technical Advisory Panel’s assessment; and
- g) Gender documentation.

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Funding Proposal

Version 1.1

The Green Climate Fund (GCF) is seeking high-quality funding proposals.

Accredited entities are expected to develop their funding proposals, in close consultation with the relevant national designated authority, with due consideration of the GCF's Investment Framework and Results Management Framework. The funding proposals should demonstrate how the proposed projects or programmes will perform against the investment criteria and achieve part or all of the strategic impact results.

Project/Programme Title:	TWENDE ¹ Towards Ending Drought Emergencies: Ecosystem Based Adaptation in Kenya's Arid and Semi-Arid Rangelands
Country/Region:	Kenya
Accredited Entity:	IUCN (International Union for Conservation of Nature)
Date of Submission:	1 st June 2018

PROPOSAL | 2015

¹ Twende is Swahili for "let's go". Ending Drought Emergencies is Kenya's flagship policy for the arid and semi-arid lands

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Note to accredited entities on the use of the funding proposal template

- Sections **A, B, D, E** and **H** of the funding proposal require detailed inputs from the accredited entity. For all other sections, including the Appraisal Summary in section F, accredited entities have discretion in how they wish to present the information. Accredited entities can either directly incorporate information into this proposal, or provide summary information in the proposal with cross-reference to other project documents such as project appraisal document.
- The total number of pages for the funding proposal (excluding annexes) is expected not to exceed 50.

Please submit the completed form to:

fundingproposal@gcfund.org

Please use the following name convention for the file name:

FP-IUCN-01062018-001

“[FP]-[Agency Short Name]-[Date]-[Serial Number]”

A.1. Brief Project / Programme Information		
A.1.1. Project / programme title	TWENDE Towards Ending Drought Emergencies: Ecosystem Based Adaptation in Kenya's Arid and Semi-Arid Rangelands	
A.1.2. Project or programme	Project	
A.1.3. Country (ies) / region	Kenya	
A.1.4. National designated authority (ies)	The National Treasury	
A.1.5. Accredited entity	IUCN (International Union for Conservation of Nature)	
A.1.5.a. Access modality	<input type="checkbox"/> Direct <input checked="" type="checkbox"/> International	
A.1.6. Executing entity / beneficiary	Executing Entity: The Government of Kenya (GoK), through the Ministry of Agriculture and Irrigation (MoAI), National Drought Management Authority (NDMA), and Conservation International (CI) Beneficiary: The Republic of Kenya: The project will focus on eleven of Kenya's Arid and Semi-Arid (ASAL) counties: <i>Garissa, Tana River, Isiolo, Marsabit, Samburu, Kajjado, Kitui, Makueni, Tharaka-Nithi, Meru and Taita Taveta</i>	
A.1.7. Project size category (Total investment, million USD)	<input type="checkbox"/> Micro (≤ 10) <input checked="" type="checkbox"/> Small ($10 < x \leq 50$) <input type="checkbox"/> Medium ($50 < x \leq 250$) <input type="checkbox"/> Large (> 250)	
A.1.8. Mitigation / adaptation focus	<input type="checkbox"/> Mitigation <input checked="" type="checkbox"/> Adaptation <input type="checkbox"/> Cross-cutting	
A.1.9. Date of submission	1 st June 2018	
A.1.10. Project contact details	Contact person, position	Luther Anukur, Regional Director, IUCN Eastern & Southern Africa Regional Office
	Organization	IUCN (International Union for Conservation of Nature)
	Email address	IUCNGCF@iucn.org
	Telephone number	+41 (0)22 999 0256
	Mailing address	Rue Mauverney 28, 1196 Gland, Switzerland
A.1.11. Results areas (mark all that apply)		
<p>Reduced emissions from:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Energy access and power generation (E.g. on-grid, micro-grid or off-grid solar, wind, geothermal, etc.) <input type="checkbox"/> Low emission transport (E.g. high-speed rail, rapid bus system, etc.) <input type="checkbox"/> Buildings, cities and industries and appliances (E.g. new and retrofitted energy-efficient buildings, energy-efficient equipment for companies and supply chain management, etc.) <input type="checkbox"/> Forestry and land use (E.g. forest conservation and management, agroforestry, agricultural irrigation, water treatment and management, etc.) <p>Increased resilience of:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Most vulnerable people and communities (E.g. mitigation of operational risk associated with climate change – diversification of supply sources and supply chain management, relocation of manufacturing facilities and warehouses, etc.) <input type="checkbox"/> Health and well-being, and food and water security (E.g. climate-resilient crops, efficient irrigation systems, etc.) <input type="checkbox"/> Infrastructure and built environment (E.g. sea walls, resilient road networks, etc.) <input checked="" type="checkbox"/> Ecosystem and ecosystem services (E.g. ecosystem conservation and management, ecotourism, etc.) 		

A.2. Project / Programme Executive Summary (max 300 words)

The objective of this project is **to reduce the cost of climate change induced drought on Kenya's national economy by increasing resilience of the livestock and other land use sectors in restored and effectively governed rangeland ecosystems**. The project will contribute to improved adaptation to climate change of Kenya's national policy of "Ending Drought Emergencies", as outlined in "Kenya Vision 2030".

The project will strengthen climate change adaptation in Kenya's arid and semi-arid lands (ASALs). ASALs occupy 89% of the country and are home to about 36% of the population and 70% of the national livestock herd. Livestock contributions account for 80% of household incomes in arid lands and 65% in semi-arid lands. Drought has been shown to reduce economic growth in Kenya by 2.8 percentage points per year for three years (from 5.2% to 2.4%), with 72% of the losses concentrated in the livestock sector. Frequency and intensity of drought is increasing as a result of climate change.

The project will be implemented in 2 landscapes encompassing 11 counties, which have devolved powers under Kenya's new constitution. The project will benefit 620,000 people in 104,000 households and will protect or restore 500,000 hectares of rangelands in a landscape of 2.5 million hectares.

The target landscapes are dry season grazing areas: critical resource zones that provide refuge during periods of drought. Their existence depends on availability of permanent water, which makes them hotspots for resource competition and land use change. They are used seasonally by large numbers of livestock keepers, often from multiple ethnic groups, following customary governance practices. Customary institutions have become weakened, leading to break down in natural resource governance, degradation of resources, and escalating conflict.

The target landscapes face challenges of weak capacities for landscape planning, poor access to climate data and analysis, and low access to markets and financial services. The project addresses this through three components:

- Component 1: Climate change adapted planning for drought resilience
- Component 2: Restoration of rangeland landscapes for ecosystem based adaptation
- Component 3: Climate change resilient ecosystem management for investments

A.3. Project/Programme Milestone

Expected approval from accredited entity's Board (if applicable)	Approved 25/05/2018
Expected financial close (if applicable)	N/A
Estimated implementation start and end date	Start: 1/11/2019 End: 31/10/2024
Project/programme lifespan	Five years, 0 months

B.1. Description of Financial Elements of the Project / Programme

Table on Financial elements per project outputs

Output	Activity	GCF funding (USD)	Total co-financing (USD)	Amount (for entire project) (USD)
Output 1: Coordinated transboundary rangeland management decisions are strengthened by enhanced climate change analysis and participatory community and county planning	Activity 1.1 Enhance information systems to inform climate change sensitive landscape planning and vulnerability/ risk management	1,441,268	932,000	2,373,268
	Activity 1.2 Strengthen community institutions to coordinate community planning and to inform and represent stakeholders in landscape planning	1,637,772	389,250	2,027,022
	Activity 1.3 Develop county rangeland restoration plans that build on local community plans combined with enhanced climate change data	1,204,379	233,750	1,438,129
	Activity 1.4 Establish functioning landscape management mechanisms in participating counties for climate change sensitive and accountable decision-making	610,544	600,000	1,210,544
	Activity 1.5 Establish participatory monitoring, evaluation and learning systems to support adaptive management	620,350	245,000	865,350
	TOTAL		5,514,313	2,400,000
Output 2: Prioritized rangeland resources including water resources, are	Activity 2.1 Implement priority community-based rangeland restoration activities	3,617,914	2,300,000	5,917,914

brought under restoration, safeguarded and sustainably managed for improved climate change resilience	Activity 2.2 Implement priority actions for integrated land/water management in catchments	3,197,647	3,000,000	6,197,647
	Activity 2.3 Install community-validated strategic water sources for sustainable rangeland utilization	500,000	-	500,000
	Activity 2.4 Assist communities to formulate bylaws and incorporate into county laws	627,250	-	627,250
	Activity 2.5 Build capacity of local institutions to implement climate-sensitive landscape management	1,539,285	100,000	1,639,285
	TOTAL	9,482,096	5,400,000	14,882,096
Output 3: Public, private and community investments in natural resources	Activity 3.1 Climate resilient Investment in priority value chains that have been validated by local communities	1,325,925	1,200,000	2,525,925
	Activity 3.2 Provide grants to establish restoration enterprises created/led primarily by women's groups	2,695,628	900,000	3,595,628
	Activity 3.3 Establish financial incentive mechanisms for sustainable land management	1,600,541	0	1,600,541
	Activity 3.4 Provide grants to community-based enterprises for ecosystem based adaptation that could create opportunities for investments in the value chains	1,431,099	800,000	2,231,098
	TOTAL	7,053,193	2,900,000	9,953,192
		22,049,602	10,700,000	32,749,602
PROJECT MANAGEMENT COSTS	5.00%	1,102,480	690,900	1,793,380
	GRAND TOTAL	23,152,082	11,390,900	34,542,982

Output	Activities	Amount (for entire project)	Currency	Amount (for entire project)	Local currency	GCF funding amount	Currency of disbursement to recipient
Output 1	1.1 - 1.5	7,914,313	million USD (\$)	N/A	N/A	5,514,313	USD
Output 2	2.1 - 2.5	14,882,096	million USD (\$)	N/A	N/A	9,482,096	USD
Output 3	3.1 - 3.4	9,953,192	million USD (\$)	N/A	N/A	7,053,193	USD
PMU		1,793,380	million USD (\$)	N/A		1,102,480	USD
Total project financing		34,542,982				23,152,082	

* Please expand the table if needed.

- A breakdown of cost/budget by expenditure type (project staff and consultants, travel, goods, works, services, etc.) and disbursement schedule in project/programme confirmation (term sheet) as included in section I, Annexes.

Total Cost Category Summary (Excluding Co-finance)	PMU Costs	C1	C2	C3	Total GCF	Co-financing	Grand Total
Staff costs - hiring of staff and their remunerations	858,605	1,797,290	1,689,002	988,991	5,333,888	503,363	5,837,251
Professional services - legal and consultancy services	100,000	683,525	186,890	621,333	1,591,748	60,000	1,651,748
Travel and per-diem - covering local and foreign travels	60,250	420,020	415,808	381,503	1,277,581	294,110	1,571,691
Conferences, workshops and training	-	749,447	1,195,629	34,467	1,979,543	1,336,935	3,316,478
Building and infrastructure - covering water pans etc	-	-	643,333	50,000	693,333	555,000	1,248,333

Field activities - covering rehabilitation activities etc	-	769,410	3,639,885	20,300	4,429,595	6,004,065	10,433,660
Outreach - covering publications etc	-	700,180	12,750	11,000	723,930	391,500	1,115,430
Vehicles and related costs	71,125	180,223	7,668	17,800	276,816	180,000	456,816
IT Equipment & Software	4,000	118,000	42,100	34,730	198,830	10,211	209,041
Office/general equipment/admin costs/EE costs excluding AE fee	8,500	96,218	59,200	113,371	277,289	55,715	333,004
Grants	-	-	1,589,831	4,779,698	6,369,529	2,000,000	8,369,529
Others - to cover any other costs	-	-	-	-	-	-	-
GRAND TOTAL	1,102,480	5,514,313	9,482,096	7,053,193	23,152,083	11,390,900	34,542,982

B.2. Project Financing Information																	
	Financial Instrument	Amount	Currency	Tenor	Pricing												
(a) Total project financing	(a) = (b) + (c)	34,542,982	<u>Options</u>														
(b) GCF financing to recipient	(i) Senior Loans	<u>Options</u>	() years	() %												
	(ii) Subordinated Loans	<u>Options</u>	() years	() %												
	(iii) Equity	<u>Options</u>		() % IRR												
	(iv) Guarantees	<u>Options</u>														
	(v) Reimbursable grants *	<u>Options</u>														
	(vi) Grants *	23,152,082															
* Please provide economic and financial justification in section F.1 for the concessionality that GCF is expected to provide, particularly in the case of grants. Please specify difference in tenor and price between GCF financing and that of accredited entities. Please note that the level of concessionality should correspond to the level of the project/programme's expected performance against the investment criteria indicated in section E .																	
Total requested (i+ii+iii+iv+v+vi)		...23,152,082...	<u>Options</u>														
(c) Co-financing to recipient	Financial Instrument	Amount	Currency	Name of Institution	Tenor	Pricing	Seniority										
	<u>Grant</u>	3,600,000	<u>million USD (\$)</u>	Conservation Int.	() years	() %	<u>Options</u>										
	<u>Grant</u>	2,400,000	<u>million USD (\$)</u>	GoK/MoAI	() years	() %	<u>Options</u>										
	<u>Grant</u>	2,400,000	<u>million USD (\$)</u>	NDMA	() years	() % IRR	<u>Options</u>										
	<u>Grant</u>	1,500,000	<u>million USD (\$)</u>	WRA	() years		<u>Options</u>										
	<u>Grant</u>	690,900	<u>million USD (\$)</u>	IUCN	() years												
	<u>Subordinated Loans</u>	800,000	<u>million USD (\$)</u>	Conservation Int.	3-5 years	interest rates											
Lead financing institution: Government of Kenya.....																	
* Please provide a confirmation letter or a letter of commitment in section I issued by the co-financing institution.																	
(d) Financial terms between GCF and AE (if applicable)	<p>In cases where the accredited entity (AE) deploys the GCF financing directly to the recipient, (i.e. the GCF financing passes directly from the GCF to the recipient through the AE) or if the AE is the recipient itself, in the proposed financial instrument and terms as described in part (b), this subsection can be skipped.</p> <p>Not Applicable (NA)</p> <p>If there is a financial arrangement between the GCF and the AE, which entails a financial instrument and/or financial terms separate from the ones described in part (b), please fill out the table below to specify the proposed instrument and terms between the GCF and the AE.</p> <table border="1"> <thead> <tr> <th>Financial instrument</th> <th>Amount</th> <th>Currency</th> <th>Tenor</th> <th>Pricing</th> </tr> </thead> <tbody> <tr> <td>Choose an item.</td> <td>.....</td> <td><u>Options</u></td> <td>() years</td> <td>() %</td> </tr> </tbody> </table> <p>Please provide a justification for the difference in the financial instrument and/or terms between what is provided by the AE to the recipient and what is requested from the GCF to the AE.</p> <p>NA</p>							Financial instrument	Amount	Currency	Tenor	Pricing	Choose an item.	<u>Options</u>	() years	() %
Financial instrument	Amount	Currency	Tenor	Pricing													
Choose an item.	<u>Options</u>	() years	() %													
B.3. Financial Markets Overview (if applicable)																	
How market price or expected commercial rate return was (non-concessional) determined?																	

*Please provide an overview of the size of total banking assets, debt capital markets and equity capital markets which could be tapped to finance the proposed project/programme.
Please provide an overview of market rates (i.e. 1-year T-Bill, 5-year government bond, 5-year corporate bond (specify credit rating) and 5-year syndicate loan.
Provide examples or information on comparable transactions.*

NA

C.1. Strategic Context

Kenya's Vision 2030 provides a road map for becoming an upper-middle income economy by the year 2030. One of the biggest threats to the achievement of this vision is the increasing recurrence of drought, causing substantial losses and suffering and undermining economic growth, particularly in the country's arid and semi-arid lands (ASALs). Prolonged droughts have occurred in 1983/84, 1991/92, 1995/96, 2004/2005, 2008/09, 2011/12 and 2016/17.

Drought is a major contributor to chronic food insecurity and poor nutrition in Kenya, which affect about 10 million people. Nearly 30 per cent of Kenya's children are classified as undernourished, and micro-nutrients deficiencies are widespread (NFNSP, 2011). This situation is exacerbated by increasing frequency and intensity of drought. Better management of drought is therefore critical to national development and the attainment of the Vision 2030².

Kenya's ASALs are characterized by extremely high inter-annual variability of rainfall, with the majority of years varying by more than 30% of the mean, and this variability is projected to be increased by climate change. According to the Intergovernmental Panel on Climate Change (IPCC 2012), there is likely to be a marked increase in drought risk over much of Eastern Africa by the 2050s, which ultimately will threaten climate sensitive economic sectors. Kenya is highly influenced by the El Niño Southern Oscillation (ENSO) phenomenon, which seasonally and annually contributes to Kenya's variable rainfall (see graphs in C.2). Temperature projections for East Africa indicate that the median and average surface temperature will increase by 3°C to 4°C in the 2080 to 2099 period compared to the 1980 to 1999 period. Changes in temperature and precipitation variability due to climate change will increase the frequency and severity of drought and extreme weather events, undermining livelihoods, eroding assets, reducing recovery periods, and contributing to changing pressures and increasing impacts on key environmental resources. Drought and floods are expected to be one of the major drivers of change in terrestrial ecosystems, with knock-on effects on water availability, livestock and crop productivity and hence food security.

Changing patterns of drought are already being observed in Kenya and impact on the national economy. The Government of Kenya's Post Disaster Needs Assessment for the 2008-2011³ drought estimated total damage and losses to Kenya at Ksh 968.6 billion (USD 12.1 billion) across all sectors. Drought slowed GDP growth by an average of 2.8 percentage points per year – roughly 50% of annual growth – during the same 3 year period. Recovery needs were estimated at USD 990 million, reconstruction needs at USD 788 million, and disaster risk reduction needs at USD 2.1 billion. The livestock sector suffered the most when compared to other sectors, incurring 72% of all losses and damages followed by agriculture sector 13%, water and sanitation 9%, etc. In response, the Kenyan government put in place a national climate change action plan to take bold steps to secure the country against risks and impacts of climate change.

Kenya developed the National Adaptation Plan (Government of Kenya, 2016) as a robust framework to support adaptation at national, county and local community level. The NAP defined adaptation and resilience building as the priority responses to climate change, and suggested that adaptation and development goals need to complement each other. Vision 2030 was conceived as an overarching strategic document. Its second Medium Term Investment Plan (MTP II) prioritizes investments in climate change adaptation, drought risk management and ending drought emergencies, and the water, livestock, crop agriculture and energy sectors.

The ASALs are dominated by rangelands, the dominant population practice pastoralism, or extensive livestock production, managing herd mobility to manage climate risks and uncertainties. Kenya's pastoralists are highly impacted by climate change. Climate change is eroding key natural resources and placing ever-greater demands on risk management strategies and resources, including herd mobility and drought reserves. Climate change modifies the availability of natural resources, forcing pastoralist to change their migration routes and the timing of herd movements, which has precipitated resource conflicts and has weakened traditional mechanisms for resource governance. This is exacerbated by growing competition for high value seasonal resources located in the dry season grazing reserves (Government of Kenya, 2016).

Dry season grazing areas are critical resource zones within the ASALs that provide refuge during periods of drought. Their existence depends on availability of permanent water, which makes them hotspots for resource competition and land use change. They are used seasonally by large numbers of livestock keepers, often from multiple ethnic groups, following customary governance practices. At the same time, population pressure in Kenya combined with drop outs from the pastoral system is driving an expansion of crop cultivation in dry season

² Kenya National Adaptation Plan: 2015-2030, Government of Kenya, July 2016

³ The 2011 Post Disaster Needs Assessment is the most recent thorough assessment of the impact of drought on Kenya's economic growth

reserves. Over time, customary institutions have become weakened, leading to break down in natural resource governance, degradation of these critical resources, and escalating natural resource conflict.

Healthy and productive landscapes are central to rangeland productivity and water security and for building resilience and creating livelihood options for communities in the face of climate change. Resilience in pastoral landscapes is determined by seasonal access to productive resources, including water, pasture and sources of secondary (non-livestock) income. Options to generate income from rangeland resources is determined by access to markets, which is generally weak throughout the ASALs. The resilience of pastoral livelihoods is underpinned by the resilience of rangeland ecosystems, which is influenced by how herd movements are managed and how resource use is governed (and seasonally restricted). Changing patterns of livestock movement, combined with land use change and uncontrolled expansion of water infrastructure, is contributing to land degradation in the rangelands.

Ecosystem-based Adaptation (EbA) approaches offer a way to integrate climate change resilience into large-scale and long-term planning of rangeland landscapes. EbA is the use of biodiversity and ecosystem services as part of an overall strategy to help people to adapt to the adverse effects of climate change (Convention on Biological Diversity, 2009). EbA supports the integrated management of land, water and living resources, including humans, which promotes conservation and sustainable use in an equitable way. In the Kenyan ASAL context EbA will primarily focus on restoring and sustainably managing rangeland resources, including pastures and water sources, to underpin adaptive capacities and community resilience. EbA is well recognized as a critical element of adaptation by the UNFCCC, and constitutes a fundamental pillar in Climate Smart Agriculture (CSA), Disaster Risk Reduction (DRR) and the Kenya National Adaptation Plan. Despite this attention, EbA is not well integrated into most of Kenya's programs, including its flagship Ending Drought Emergencies (EDE) plan. For instance, at the time when the EDE plan was launched in 2013, EbA was a fairly emergent concept and was not popularized in Kenya at that time. In addition, EDE was strongly driven from a humanitarian angle with disaster risk reduction dominating the conceptual thinking.

Opportunities to embed EbA approaches and rangeland landscape management are increasing due to the growing autonomy of county governments. Kenya's 2010 Constitution mandates a shift towards decentralized and devolved policy and legislative environment, which is opening up opportunities for multi-sector, multi-stakeholder, integrated planning with the participation of land users at the county level. Local governance systems are being realigned, empowering county-level elected government to define and implement local development priorities. Devolution is also contributing to increased investment in the ASALs and offers new opportunities for upholding the rights of marginalized communities in the ASALs.

In 2010 Kenya established the ASAL Secretariat as a permanent and specialized institution to champion and coordinate development in the ASALs. In 2012 Kenya adopted a strategy for Ending Drought Emergencies by the year 2022. EDE currently focuses on short-term implications of drought (response) combined with improved early warning. Rangeland management and climate change adaptation are not yet integrated into the medium term strategy for ending drought emergencies. The National Drought Management Authority, a project partner, is the Secretariat of the Common Program Framework for Ending Drought Emergencies.

The EDE program consists of six pillars cutting across Kenya's National Vision 2030 Medium Term Plan: peace and security; climate-proofed infrastructure; disaster risk management; sustainable livelihoods; human capital; and institutional development and knowledge management. By contributing to EDE this project is firmly anchored in national, sub-national and sectoral plans and policies that have been evolving for three decades. In addition, the Climate-Smart Agriculture Programme (CSAP, 2015–2030) is jointly implemented by Ministry of Agriculture and Irrigation (MoAI), Ministry of Environment and Forestry, and Ministry of Water and Sanitation--the key ministries in this project.

This project responds to significant opportunities that have been created by the Kenyan government through adoption of key, favorable policies for sustainable rangelands management. The project will demonstrate implementation of these policies in ways that are adapted to climate change projections and threats. The project recognizes that pre-existing development failures in Kenya's ASALs leave populations more exposed to the risks of climate change, but also recognizes that pastoral livelihoods are traditionally well-adapted to conditions of climate variability. The project therefore strengthens climate change adaptation by reinforcing and enabling local institutions and practices and up-grading them to manage the scale and rate of changes that are implied by climate change.

C.2. Project / Programme Objective against Baseline

C.2.1. Baseline scenario

C.2.1.1. The Baseline Context in Kenya's Arid and Semi-Arid Lands (ASALs):

ASALs occupy 89% of Kenya and are home to about 36% of the population and 70% of the national livestock herd. The livestock sector contributes 5.6% to 12.5% of GDP and 30% to 47% of agricultural GDP: estimates

are constrained by weak market penetration in the ASALs and poor data collection, but applying 70% to the livestock sector contribution indicates that pastoralism contributes between 3.9 and 8.8% of GDP. Up to 90% of the red meat consumed in Kenya comes from livestock raised in the ASALs. In pastoralist production systems livestock accounts for 90% of employment and 95% of family incomes (Elisabeth & Mbwika, 2012). Additionally the ASALs is home to 90% of the wildlife that supports the country's thriving tourism sector (contributing more than 15% of GDP).

Of the 23 counties in the ASALs in Kenya, 9 counties are classified as Arid, and 14 as Semi-Arid. The ASAL ecosystems are characterized by low, erratic annual precipitation between 150mm to 550mm per year in arid areas and 550mm to 850mm year in semi-arid areas. The ASALS are the most affected by climate change in Kenya. They include most of the lands forecast to be at very high risk (36.1%), and at high risk (47.4%) of climate change impacts, as shown in Figure 1.

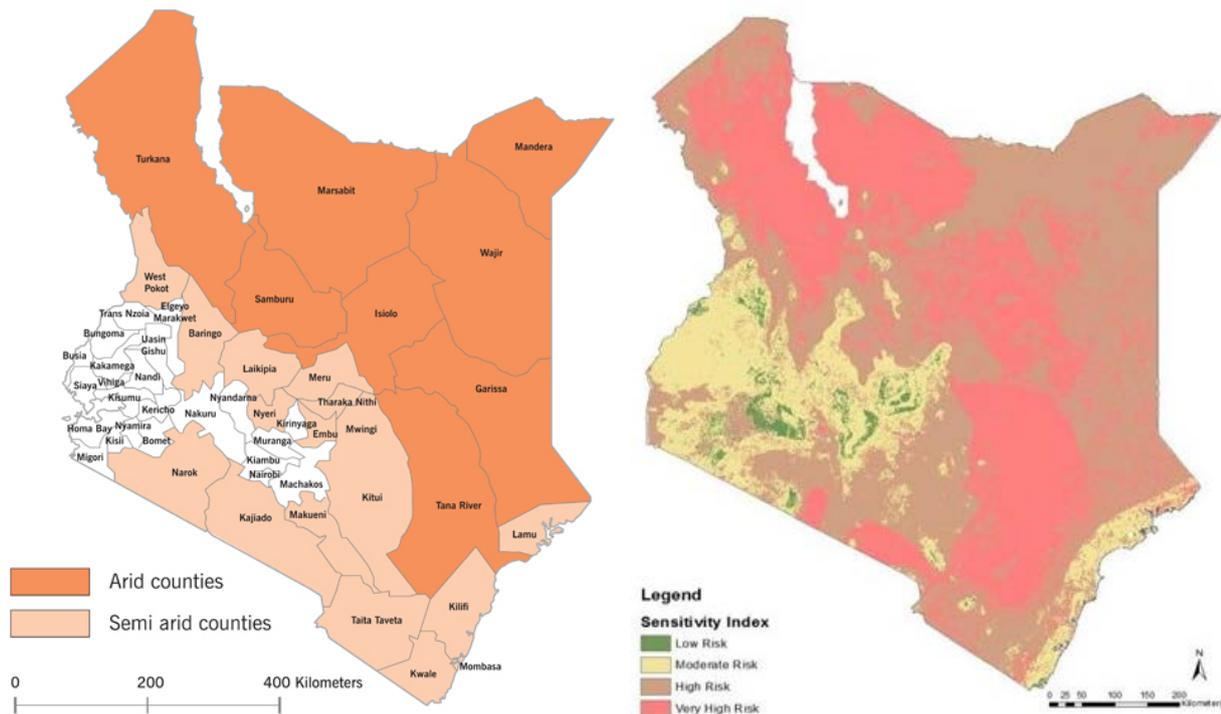


Figure 1: Map of Kenya's ASAL Counties (left: source <http://www.asalforum.or.ke>) and Climate change sensitivity map of Kenya (right: source: Mwangi & Mutua 2015)⁴. The landscapes selected for the project are all in High Risk or Very High Risk areas

Precipitation projections and evidence are inconsistent, with models projecting increases in some ASAL areas while data show declining trends. Projections and recorded data in Kenya's drylands (ASALs) show rising temperatures. Changes in precipitation and temperature from historical trends have been used in Kenya to determine a climate change influence on land degradation and drought. Evapotranspiration data would make an even stronger link between climate change and the observed increases in land degradation and drought events. Such evapotranspiration data is available for a few counties although not all, but does indeed show increases in evapotranspiration rates. Annex 2b provides a further compilation of data and analysis concluding that climate variability is increasing alongside the number of extreme weather events and resulting in an increase in drought and flood. The frequency of drought has probably increased beyond the recovery period (5 years) for pastoralist systems in some parts of Kenya. The project will develop further the data and analysis between climate and other data, such as evapotranspiration and also land degradation to further strengthen Kenya's capacity to analyse the data and reinforce response measures.

Kenya's population of about 40 million grows at the high rate of 2.9% per year. About 10 million people suffer from food insecurity and poor nutrition with 2-4 million requiring emergency food assistance at any given time,

⁴ Mwangi K,K. and Mutua F. 2015. Mapping Kenya's Vulnerability to Climate Change- A multifactor Approach. International Journal of Science and Research (IJSR).ISSN (Online) 2319-7064; Volume 4 Issue 6: 12-20

with proportionally more people affected in ASALs. Kenya's Food Security Steering Group estimated in 2017 that 2.6 million people in 23 ASAL counties are affected by drought and in need of food aid. Among the most affected counties are Isiolo, with more than 55% of the population at risk, followed by Marsabit, Tana River and Samburu where 44% of the population are affected. Other counties affected are Wajir (32%), Garissa (29%), Mandera (28%), and Turkana and Kwale (25%) (FEWS NET, 2017). The project counties are both pastoralists and agropastoralists. The Sabarwawa landscape comprises largely pastoralists while the Mid Tana river and Chyulu landscapes comprise a mixed population of both pastoralists and agropastoralists.

Drought emergencies have an impact on economic growth in Kenya. The 2011 drought, for example, reduced GDP by 2.8 per year for 3 years, with 72% of the economic losses from drought concentrated in the livestock sector. As mentioned in C1, climate change is increasing the frequency of drought in Kenya, which reduces the amount of time for recovery from one drought episode to the next. Three droughts have occurred in Kenya since 2008 and this frequency presents a serious risk to the resilience of the pastoral sector.

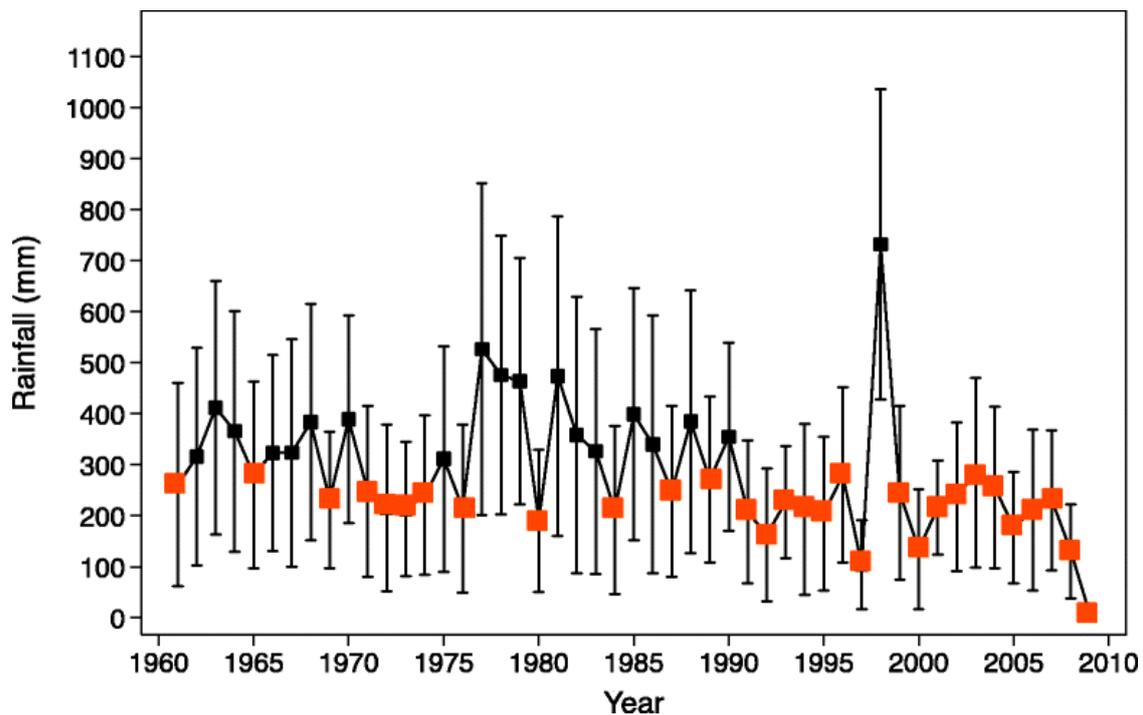


Figure 2: Fifty years of rainfall in northern Laikipia, Kenya (Source: Hauck and Rubenstein 2016). In the figure, the BLACK BOXES (annual mean rainfall) indicate years where rainfall was above 300 mm/year whereas the ORANGE BOXES (again, mean annual rainfall) indicate years where rainfall was below 300 mm/year. The graph illustrates the decrease in years of above average rainfall and the increasing frequency of years with sub-average rainfall.

Economic development throughout Kenya is impacting on the ASALs, but in the absence of a clear understanding of how climate change will impact on existing livelihoods and natural resources, there are serious risks of maladaptation. Current development paradigms are poorly informed by the current knowledge on risk management in rangeland economies. Herding strategies are designed to respond to a highly uncertain climate, and climate change will probably aggravate that uncertainty. Without understanding this critical aspect of how climate change affects drylands, development actions could undermine risk management by undermining the herding strategies that are designed to manage risk.

Major concerns have been raised over Kenya's ambitious LAPSET corridor, which will involve the construction of roads, railway, air, fiber optics transport and communication systems, electricity, oil pipelines and resort cities across parts of the ASALs. While these developments will offer many opportunities for economic growth in the ASALs, they also present numerous risks to the sustainable management of rangeland landscapes and to climate change adaptation strategies of resident populations.

The Kenyan government has major concerns over the state of degradation in the countries rangelands. Degradation of rangeland resources undermines the capacity of rangeland users to adapt to climate change and reduces the rate of recovery post-drought, contributing to a downward spiral of resilience. Kenya's National

Action Program to Combat Desertification⁵ estimates land degradation at an average of 62% in pure ASAL counties and 25% in counties that are at least 85% ASAL. Consecutive droughts combined with disruption of herding patterns have compromised regeneration of rangelands, leaving large expanses of natural pastureland degraded and under-productive.

Kenya does not systematically collect data on land degradation in the ASALs and the above figures are quite crude estimates, which places a major constraint on planning and investment. However, the National Drought Management Authority estimates that the 2016 drought led to: i) severe vegetation deficit in Isiolo county with persistently poor and deteriorating vegetation condition across all livelihood zones; ii) increased grazing distances for herds, linked to continued depletion of pasture/browse resources and poor pasture regeneration due to successive failed rains; iii) low yields of shallow wells attributed to reduced recharge potential and; iv) poor livestock body condition, particularly for cattle and sheep,- linked to limited pasture and browse and extended distances to water sources (NDMA, 2017).

Rates of erosion have increased in recent decades and soil carbon stocks, a key indicator of soil health and regeneration potential, are critically low (below 3.5 kg/m³) in some northern rangelands. Given the scale of the ASALs, and the importance of restoring soil organic carbon through restoration and sustainable management, rangeland restoration actions not only contribute to climate change adaptation, but have the potential to make a significant contribution to climate change mitigation.

The impacts of climate change have led to more people depending on survival strategies to reinforce their livelihoods. This includes unsustainable practices, such as overharvesting trees for charcoal. Casualties of climate change include a growing number of former livestock keepers who require alternative livelihoods. In the absence of adequate land use planning, these people frequently adopt land use practices that compete against pastoralism, for example converting key dry season pastures or over-exploiting scarce water resources for crop farming. Such examples are on-going responses to a range of social and economic pressures that could compromise the capacity of rangeland users to adapt to climate change, because they encroach on established adaptation strategies. Climate change impacts are forecast to further compound the already-fragile situation in these areas without major changes in the way rangeland landscapes are managed and governed (Kariuki et al., 2018)⁶ (Nassef et al., 2009)⁷.

⁵ Republic of Kenya, 2002. National Action Programme to Combat Desertification: http://www4.unfccc.int/Nap/Documents%20nap/Kenya_Nap_Final.Pdf

⁶ Kariuki, R., Willcock, S., and Marchant, R., 2018. Rangeland Livelihood Strategies under Varying Climate Regimes: Model Insights from Southern Kenya. *Land*, 7, 47; doi:10.3390/land7020047

⁷ Nassef, M., Anderson, S. and Hesse, C., 2009. Pastoralism and climate change: Enabling adaptive capacity. Humanitarian Policy Group. April 2009 <http://pubs.iied.org/pdfs/G02497.pdf>

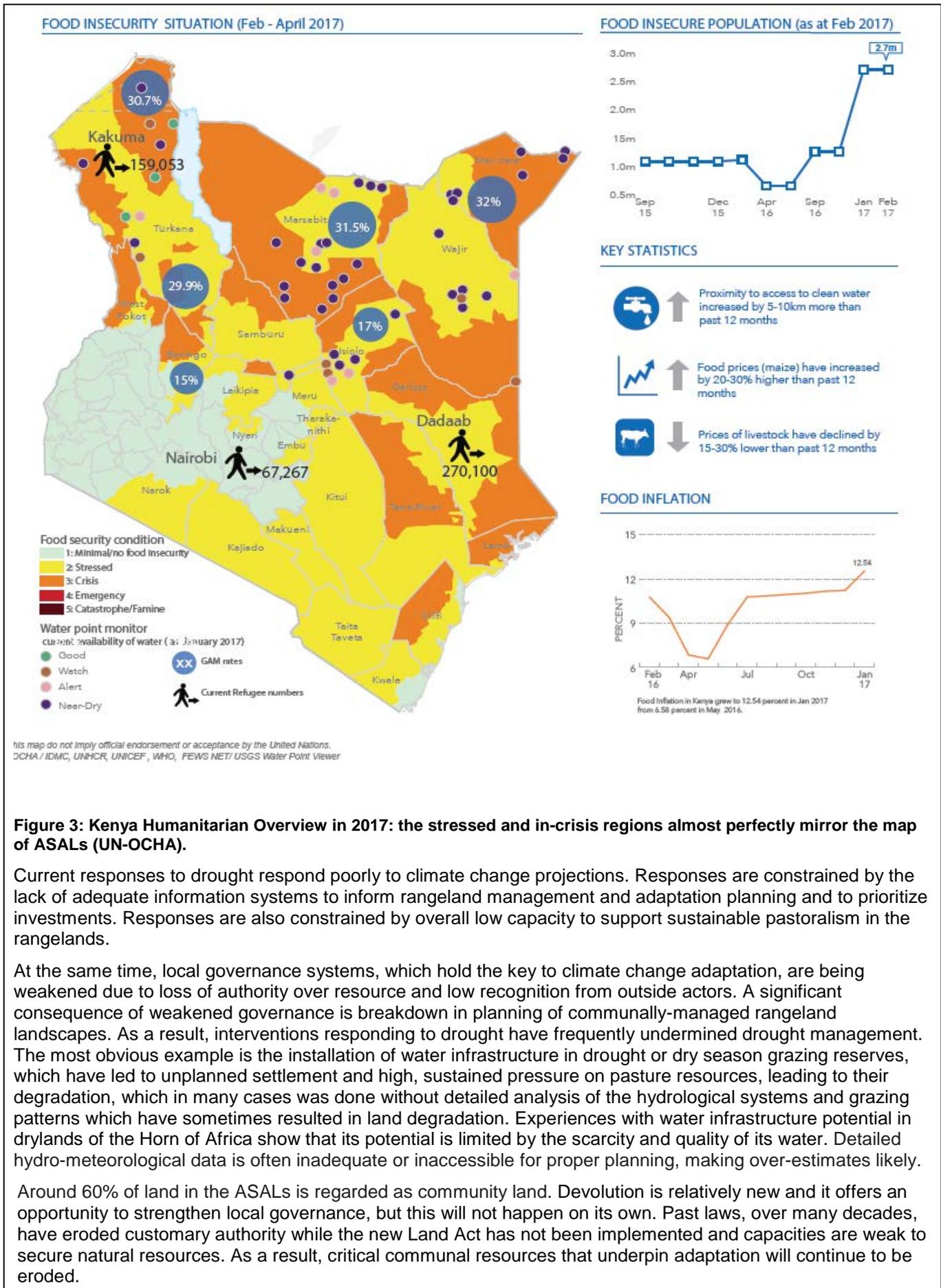


Figure 3: Kenya Humanitarian Overview in 2017: the stressed and in-crisis regions almost perfectly mirror the map of ASALs (UN-OCHA).

Current responses to drought respond poorly to climate change projections. Responses are constrained by the lack of adequate information systems to inform rangeland management and adaptation planning and to prioritize investments. Responses are also constrained by overall low capacity to support sustainable pastoralism in the rangelands.

At the same time, local governance systems, which hold the key to climate change adaptation, are being weakened due to loss of authority over resource and low recognition from outside actors. A significant consequence of weakened governance is breakdown in planning of communally-managed rangeland landscapes. As a result, interventions responding to drought have frequently undermined drought management. The most obvious example is the installation of water infrastructure in drought or dry season grazing reserves, which have led to unplanned settlement and high, sustained pressure on pasture resources, leading to their degradation, which in many cases was done without detailed analysis of the hydrological systems and grazing patterns which have sometimes resulted in land degradation. Experiences with water infrastructure potential in drylands of the Horn of Africa show that its potential is limited by the scarcity and quality of its water. Detailed hydro-meteorological data is often inadequate or inaccessible for proper planning, making over-estimates likely.

Around 60% of land in the ASALs is regarded as community land. Devolution is relatively new and it offers an opportunity to strengthen local governance, but this will not happen on its own. Past laws, over many decades, have eroded customary authority while the new Land Act has not been implemented and capacities are weak to secure natural resources. As a result, critical communal resources that underpin adaptation will continue to be eroded.

Land use planning in these areas can be complex as land tends to be used communally and seasonally by the multiple actors for multiple uses. County spatial plans were expected to commence by July 2015 but very few county-wide planning processes have yet to take place, due to cost and capacity, and very little land use planning guidance has been provided to counties so far; with that which has been developed lacking a participatory focus.

Through devolution in Kenya there are opportunities for more locally appropriate and integrated planning, but this has yet to fully be realised at county level. Once communities have articulated their visions and plans for land use—having been impartially informed of the potential and alternative uses—other levels of governments can then present their land use preferences in order that negotiations and agreements can ensue. Local participatory developed plans will need to be integrated with and support government planning processes, rather than running in parallel or conflicting with them. The devolution process in Kenya not only provides an opportunity for nested planning processes at different levels but also makes it a necessity. This would strengthen the opportunity for communities to have better land management and authority over resources in the devolution scenario.

A further consequence of drought, which is exacerbated by climate change, is that actors have become locked into humanitarian response, at the expense of overall economic development. As a result, penetration of markets and associated infrastructure into ASAL areas is low. Most people in the ASALs struggle to access finance and investment and as a result value chains are poorly developed. There has been some progress in recent years in marketing of livestock, but investment in other commodities - both livestock and non-livestock goods and services - remains very low.

C.2.1.2. Climate impacts problem statement:

Climate change is increasing the frequency and severity of drought events in Kenya's ASALs while contributing, directly and indirectly, to degrading the natural resources on which ASAL communities depend for adaptation.

Pastoralism is an adaptation to the natural conditions of ASALs, including high climate variability and aridity. Climate change affects pastoralism by exacerbating these natural conditions beyond the capacity of traditional mechanisms to manage them. Traditional patterns of mobility are proving inadequate as key resource areas are degraded through over-use (usually through prolonged grazing), or lost to other uses, and pastoralists are forced to migrate to new areas. Changing climate patterns are also modifying the rangeland landscape, contributing to localized land degradation and affecting the balance between pasture resources and water sources, particularly in the key drought reserve areas.

Land degradation is driven by climate change as well as a host of other factors (e.g. economic and demographic drivers). Land degradation reduces capacity for climate change adaptation by undermining established strategies, reducing overall rangeland productivity, and disrupting hydrology and water availability. A common symptom of land degradation in the rangelands is reduction in vegetation, and particularly grasses. This reduces the available livestock fodder, increases the rate of surface run-off, and increases soil crusts, which leads to lower infiltration of water during the rains. A further consequences of land degradation is reduction in soil organic carbon, which not only reduces this contributes of rangelands to climate change mitigation, but also further reduces the capacity of the soil to store moisture. Climate change therefore not only contributes to meteorological drought (through periodically low rainfall) but also hydrological drought (as a result of degrading water cycles).

In the absence of land use planning in rangeland landscapes, land use change is uncontrolled and pastoralist drop-outs (those who lose their livestock herds during drought for example) as well as people relocating from other areas pursue alternative land uses that directly compete against pastoralism. This undermines pastoral coping strategies and increases the risk of resource-based conflict. At the same time, the traditional institutions that mediate in natural resource conflicts are coming under strain as a result of many social and economic factors, including changing competition for land and water and the emergence of new state institutions with parallel or overlapping mandates. Climate change influences these factors by changing the patterns of resource use and access and affecting the seasonality of resource use. Competition and conflict over resources among pastoralists and farmers in traditional dry-season grazing areas further reduce the adaptive capacity of vulnerable pastoral communities, especially women and youth.

Pastoralists manage lands according to locally devised rules designed to manage and conserve key resources such as pastures and water sources. Dry season grazing areas are a critical element of traditional land management systems in many pastoralist communities, providing a 'grass reservoir' for livestock to consume during the long dry season when forage and water for livestock invariably become scarce. Wet season pastures usually lack permanent water, while dry season pastures tend to have permanent water nearby or retain vegetation that livestock can access even during severe droughts. Pastures designated for use by 'home herds' (i.e. milking animals, young, weak or infirm livestock) are close to permanent settlements and sources of water, and are

sometimes allocated to individual households rather than being managed at the community level. In the dry season livestock from the surrounding areas converge to survive during the dry months.

However, these traditional pastoral production systems are under threat from increasingly erratic rainfall, drying grasslands, rapid population growth, restrictions on household and herd mobility, pastoralists becoming more sedentary, and privatization of land. Traditional pastoral economics are shifting to more commercial approaches that incorporate newer links among globalization, local markets, migration and economic opportunities--creating new dynamics in livestock value chains. Market relationships are an integral part of today's pastoral livelihoods, and are reshaping the practices of pastoralism in Kenya today.

Kenya's ASALs have historically received below average public investment and as a result they suffer from many basic development challenges. This has resulted in wide spread investment, capacity and institutional gaps that undermine climate change adaptation. Climate change adaptation and resilience projects⁸ include StARCK+, Building Drought Resilience, Regional pastoral Livelihoods Resilience Project, Accelerated Value Chain Development Program, which are supported by a number of development partners (Austrian Development Agency, DFID, World Bank, IUCN, ILRI, IIED). These projects are implemented in partnership with Government and local NGOs/CBOs in Garissa, Wajir, Isiolo, Kitui, Makueni, Mandera, Marsabit, Samburu, Tana River and Kajiado Counties. None of these projects addresses rangeland landscape restoration and management as the basis for climate change adaptation. However, the projects have piloted a number of good practices that will be scaled up through the GCF investment, including participatory planning and climate change adaptation planning at the community level. These projects provide a platform on which to build, but by failing to address rangeland landscape management they fail to address the underlying natural resource constraint that affects resilient rangeland livelihoods.

Projects on water resource development and catchment management, and sanitation are being supported by multiple donors (Governments of Sweden and Finland, EU, GIZ, Bill and Malinda Gates Foundation, DANIDA, IFAD, CARE) in collaboration with Ministry of Water and Sanitation, Water Sector Trust Fund, Water Resources Authority, and communities in the counties of Tharaka Nithi, Meru, Mandera, Wajir, Tana River and Isiolo. These projects present a major risk due to the lack of coordination with rangeland management and restoration. While water resources are urgently needed in many locations, they are also a leading driver of rangeland degradation. Counties currently lack the information and the processes through which water resources can be safely developed in order to enhance, rather than erode, rangeland productivity.

The Government also supports capacity building for counties on agricultural sector coordination, resilience and value chain development through Agricultural Sector Development Programme (ASDSP) in collaboration with the bilateral donor SIDA. While this program offers opportunities for investment in more resilient rangeland management, the absence of adequate planning in agriculture sector development, particularly in relation to rangelands, creates the opportunity for maladaptation. A clear example is the disproportionate investment in crop production on localized high-value drought reserve pastures, which takes critical drought resources away from pastoralists.

Another baseline initiative is Conservation International's (CI) Accelerator Fund, which provides targeted capital and other resources needed to enhance the 'investment readiness' of conservation enterprises. The roadmap for this component features:

- 1) Access by ASAL pastoralist entrepreneurs to CI's established Kenya-wide USD 13 million Conservation Accelerator Fund. This pre-investment facility plans to support between 50 and 70 investments of roughly USD 50k - 500k throughout Kenya, work to unlock larger investor potential by creating bankable small businesses in Kenya, and restore or avoid emissions on hundreds to thousands of hectares per investment via landscape conservation or restoration.
- 2) In addition, CI manages an Incubation Fund Facility of USD 5 million that serves as a business incubation or microfinance mechanism, to provide about 200-450 grants to community-based small businesses, like a women-managed seedbank project in Chyulu Hills. Lastly,
- 3) CI will provide strategic advice, capacity building, value-chain investment plan and climate-related market support to influence the livestock and other relevant sectors.

Despite the existing initiatives, the principle barriers that constrain the transition to greater climate change resilience in the ASALs, and thereby ending drought emergencies, are as follows:

⁸ See Feasibility Study Section 4 for details

1. Information and capacity gaps limit the options of critical stakeholders for climate change adaptation (i.e. lack of access to, and availability of, data on climate change impacts and its implications; weak capacity to act on the information that is available; weak capacity to influence rangeland planning across different sectors).
2. Land users have for many years lacked security of governance to implement sustainable rangeland management (i.e. low and ineffective participation of land users in decision-making; low capacity of local institutions to coordinate communal rangeland management; absence of mechanisms for coordinated planning and management of actions within rangeland landscapes). With the 2010 Kenya Constitution the 2012 Land Act and the 2016 Communities Land Act, the situation is improving and providing opportunities to improve land tenure.
3. Rangeland management planning is not cognizant of future climate change scenarios (i.e. low access to, and capacity to use, up to date information; absence of mechanisms and protocols for systematically integrating climate change data in planning).
4. Critical resources in rangeland landscapes are degraded and no longer support risk management (e.g. seasonal pastures converted to other lands uses, pastures degraded through permanent/extended occupation and fencing, bush encroachment due to grazing mismanagement). In some cases the loss of rangeland resources is permanent but in other cases such as land degradation it is reversible. In the case of protected areas it is possible to negotiate access to pasture resources during drought events.
5. Investments in rangelands are insufficient and inappropriate to support adaptation (i.e. large-scale measures for large scale regeneration; technical options to assist natural regeneration; suitable alternative land use practices; effective management of land and water to mitigate drought).
6. Poor access to markets and financial services (i.e. low access to markets for livestock products and non-livestock products; low availability of finance for local enterprises; low awareness of positive externalities and ecosystem services from rangelands). While these barriers can be challenging especially communities that are remote from consumers of livestock products there are actions that can be taken to help access markets and to support access of finance.

Existing projects in the counterfactual scenario (i.e. no GCF project) focus on agricultural development without considering the consequences of climate change, or the impact of crop sector development on pastoralist adaptation to climate change. However, climate change, with increased frequency of drought, strongly threatens the potential for sustainable development outcomes. GCF support is therefore needed to make investments in socio-economic development more resilient to climate change.

C.2.2. Alternative Scenario Proposed by this Project

The theory of change (see Figure 6) is designed to address the barriers listed in the preceding sub-section, in line with Kenya's institutional arrangements at national and county levels. The project will contribute to ensuring adaptation and resilience of socio-economic development in the ASALs of Kenya to current and future climate change. Sustainable development will be centered on landscape-scale management of rangelands that is informed by improved climate change impact analysis. Landscape management will be consistent with the vast area these lands occupy and the high numbers of pastoralists who manage them communally, and who may have periodic (seasonal or occasional) resource rights. Institutions will be strengthened to govern rangeland resources at the community and inter-community level and at the level of county governments. Counties will develop the mechanisms to coordinate management of transboundary rangelands, which often include critical grazing reserves.

In the alternative scenario delivered through the project, improved information and capacities combined with stronger institutions will enable rangeland users to adapt more effectively to climate change. They will allow both better decision-making and better implementation of decisions as a result of stronger participation and accountability. Increased access to markets, through stronger value chains and improved access to finance, will increase the opportunities for livelihood adaptation, will raise incomes and asset ownership amongst pastoralist communities, and will enable restoration activities. Restoration of rangeland landscapes will increase overall productivity and reduce climate risks by improving the overall supply of fodder, water and other critical productive inputs. The outcomes will include increased food and water security and greater income security. These outcomes contribute together to overall drought resilience.

Improved monitoring of rangeland health combined with improved analysis of climate change will enable communities and county governments to prioritize and implement appropriate restoration measures. This will include low-cost measures that are viable for vegetation recovery on a large scale, such as improved planning of herd movements for natural regeneration.

Improved planning will also guide interventions in the water sector, including siting of strategic and low-yield water resources that are commensurate with the associated pasture availability. Restoration of rangeland vegetation will

increase infiltration rates and will contribute to reducing hydrological drought, and will lessen the impacts of climate-change-induced drought events.

Restored rangelands will improve overall livestock productivity (e.g. meat and milk yield) and reduce losses during drought. They will additionally provide alternative income sources through harvesting of natural products, such as gums, fruits and medicinal plants. Management of rangelands will be oriented towards protecting the multiple ecosystem services that benefit society, including both livestock and non-livestock commodities. Ecosystem service externalities that are enjoyed outside the rangelands, such as downstream water supply or protection of wildlife, will be evaluated for further compensation, for example in the form of payments for ecosystem services.

Rangeland users will enjoy better access to markets and market information, increasing revenues from production and stability of incomes, and improving terms of trade. Value chains will be developed for a wider range of products, supporting diversification of livelihoods in-line with sustainable rangelands management. Planning for non-livestock value chains will be better informed of, and responsive to, the potential trade-offs between pastoralism and other land uses, such as crop production. The project does not prioritize investment in tourism-related activities, but activities under income generation could be used to respond to emerging opportunities, recognizing the importance of this sector to the Kenyan economy, and the pivotal role played by ASAL communities in conserving the country's wildlife.

The alternative scenario envisages transformative, sustainable and inclusive investment in value chains to meet local and global market demands. This can contribute to optimizing major infrastructure development opportunities such as the economic growth corridors planned in Kenya, to help open up currently remote area to other commercial enterprises. Social, inclusion, protection and empowerment are strengthened to enable pastoralists and farmers, and especially the more vulnerable, to invest and modify their practices to improve their adaptive capacity.



Figure 4: Restoration (right) proximate to priority landscape, Chyulu Hills

C.3. Project / Programme Description

Target landscapes

In rangeland management, the term “landscape” describes vast areas of nature that are managed by people, and therefore shaped by human activities. A landscape approach is adapted to the scale of human management, which in the case of Kenya’s ASALs may be areas of tens of thousands of square kilometers, in which tens of thousands of individuals may have different resource rights and responsibilities. The complexity of these systems defies simplistic management solutions or the imposition of easily measurable boundaries, and the landscape approach is a way of managing that complexity.

Within Kenya’s ASALs, dry season grazing zones create islands of resources that are seasonally indispensable. These zones determine land management throughout the whole landscape and they play a particularly important role during drought, as discussed above [check]. The primary criteria for the selection of priority landscapes was, therefore, that they include an important dry season grazing areas.

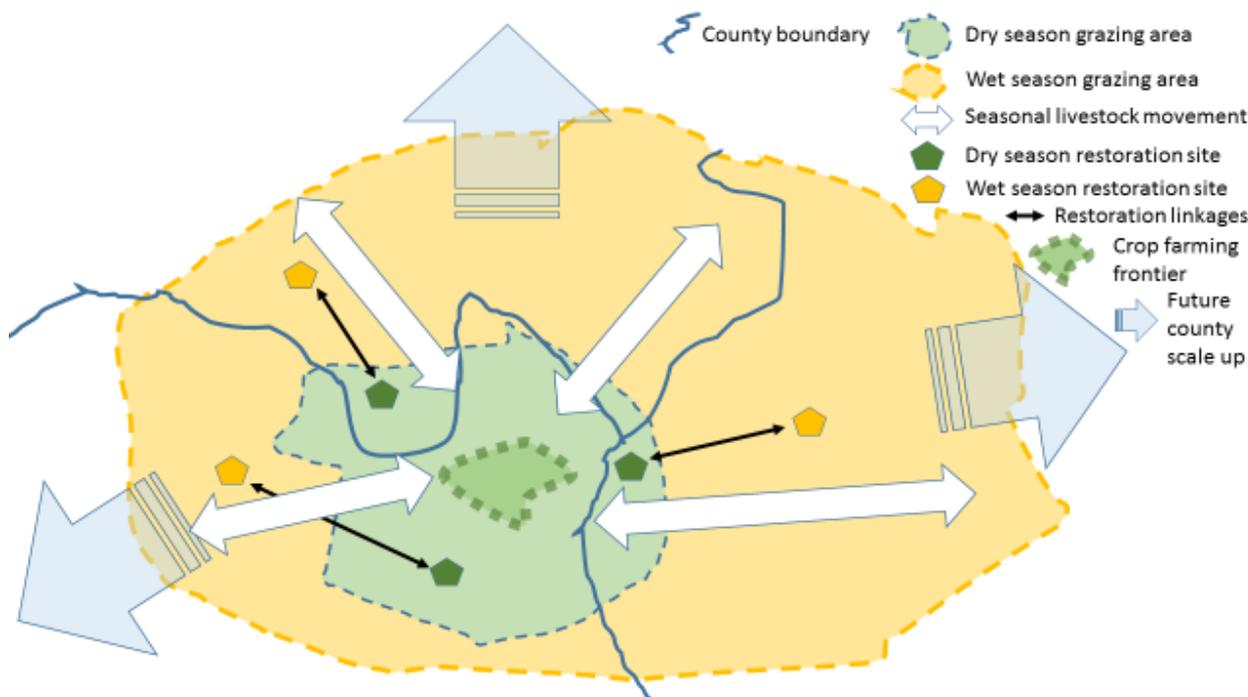


Figure 5a Concept for the selection of priority landscapes focused on a dry season grazing area.

Extensive consultation was required to determine the landscapes for intervention in this project. Originally seven such landscapes were identified, and finally two were selected with one being a cluster of two interlinked landscapes a primary site and a satellite site. The two target landscapes are major dry season grazing zones, one in semi-arid southern Kenya and the second in the Northern arid lands.

The landscapes selected met the following criteria:

- Are centred on large-scale drought reserves and dry season grazing areas cutting across county boundaries,
 - **Rationale:** Concept as per Figure 5a. These areas host seasonal influxes of livestock that are widely disbursed during the wet season converge on the dry season grazing area and numbers can build during droughts to reach emergency proportions. In the last 50 years the dry season reserves have also been expansion areas for subsistence crop agriculture and portions of them have been incorporated into protected areas, both phenomenon creating conflict with pastoralists. The effective management of dry season gazing areas (including those that act as drought reserves) will provide a substantial input into reducing the level of emergency around drought.
- Retain traditional land management systems that are still functioning, at least partially,
 - **Rationale:** Traditional land management systems and institutions had mechanisms to address drought, manage pasture and resolve conflicts around inter community competition for pasture resources. The residual existence of these systems in communities has been demonstrated to be a foundation and baseline building block for improved governance in situations of new county governance structures. For example the Dedha (Elders) Council,

and Abagarega (Water Point Control Elders) of the Borana communities in Isiolo have been shown to improve drought outcomes in the Waso Rangelands.

- Are experiencing conflict levels (as identified by the key informants in stakeholder consultations) which are manageable and represent interactions with agro-pastoralists or crop farmers,
 - **Rationale:** Increasing frequency and severity of drought as a result of climate change coupled with increasing, human and livestock populations, and reduction of livestock rangelands due to competing land-use (crop agriculture and protected areas), has led to conflict between communities and other land users. The sites have been selected so the level of conflict is considered manageable and conflict resolution mechanisms promoted by the project will be practiced.
- Represent cross-county interactions,
 - **Rationale:** The current devolution in Kenya has reached a point where the counties are increasingly improving management within county boundaries. Inter-county coordination is less well developed but is emerging. The dry season grazing areas largely because they represented historically barriers to community settlement and so partially implicated in the original setting of county boundaries (then called districts)
- Have associated satellite wet season grazing areas, so that the integrated governance and restoration of wet season grazing can also be incorporated,
 - **Rationale:** The priority landscapes are primarily dry season grazing areas but the project theory of change implies the parallel restoration activities in wet season grazing areas. The better managed the wet season grazing areas the less pressure there will be on the dry season grazing areas and drought reserves. These areas have a mosaic of land uses including some wet-season grazing areas so the restoration of wet season rangelands can be demonstrated in the same landscape.
- Have potential livestock value chains linked to external domestic and export markets
 - **Rationale:** Improved range management will improve livestock productivity and the presence of livestock markets will help to demonstrate the benefits through livestock revenues.

In addition to the criteria listed, the two target landscapes are selected to represent the two major climate zones of the ASALs: semi-arid (Chyulus) and arid (Sabarwawa/ Mid Tana). The Arid landscape also includes patches of semi-arid land, reflecting its location on the climate gradient between the drylands and the higher altitude humid lands of central Kenya.

Both landscapes also present opportunities for mitigating long-standing land-use conflicts. As mentioned a proportion of the dry season grazing areas have been changed into different land uses – subsistence agriculture and protected areas. Traditionally there was a level of reciprocity between pastoralist and crop farmers. The crop farmers bought livestock from the pastoralists and allowed grazing on stovers (crop residues), while the livestock manured the crop fields. Systems to rebuild reciprocity will be examined. Wildlife has co-existed with livestock within in ecosystems, but the creation of protected areas has excluded livestock from traditional grazing areas, yet wildlife range beyond the park causing resentment. The presence of protected areas in the dry season grazing areas presents an opportunity to work with park authorities and communities to find mechanisms to reduce the land use conflicts.

A description of each site is presented in the table below.

Table 1: Description of the selected landscapes (IUCN 2017)

Priority landscapes	Counties	Land-use dynamics	Rationale for selection
Sabarwawa/ Mid Tana River (dry season reserve for arid lands of northern Kenya)	Samburu, Marsabit, Isiolo, Wajir, Garissa, Tana River, Meru, Tharaka Nithi and Kitui	<u>Used for production of all species:</u> camel, cattle and small stock of which the latter is particularly important <u>Connects pastoralists and agro-pastoralists along the major watershed of River Tana.</u> Houses Meru and Kora parks, Rahole Game Reserve and Bisan Adhi Conservancy	Mid Tana River is a transition between the arid lowlands and the humid highlands of Mount Kenya. It is predominantly arid but has a semi-arid transition. The linked satellite landscape to the north; Sabarwawa has no crop interface is and the landscape is managed under community conservancy management model. Connects 4 counties as dry-season grazing area. Convergence zone; one of best -managed grazing reserves. Opportunity for joint county planning and investment. Livelihood systems include crop production, irrigated agriculture, livestock production

			(camels, small stock and beef cattle) and wildlife conservation. Promotion of mutual partnership among diverse communities.
Chyulu Hills (dry season reserve for semi-arid southern Kenya)	Taita Taveta, Makueni, Kajiado	<u>Houses Chyulu National Park and Chyulu Forest Reserve</u> . Part of the wider Amboseli ecosystem. Acts as dry-season grazing reserve for pastoralists & agro-pastoralists from the 3 counties. Wildlife / livestock disease interface. A water catchment.	Water tower for the 3 counties and beyond. Surrounded by ranches, mixed farming, and pastoralist communities who keep cattle and Dorper Sheep for export and meat. Important source of beef for Nairobi and Mobassa. Home to diverse wildlife.

The target landscapes are at the junction of multiple counties and the dry season grazing areas are managed communally by herders from multiple ethnic groups and locations. The landscape in the arid zone includes both Sabarwawa and / Mid Tana River. Although these two zones are non-contiguous, they both provide seasonal grazing resources for the neighboring counties and for counties further to the north, as well as regions in southern Ethiopia. The Chyulu Hills landscape in the semi-arid zone provides a dry season reserve for livestock keepers from 3 adjacent counties.

The two locations selected offer a cross-section of pastoral ASALs with populations vulnerable to climate change potential impacts. Approximately 62% of the population of the two landscapes live in what is termed “absolute poverty” (Feasibility Study, from County Integrated Development Plans 2013-2017). Details of the landscapes are tabulated below:

Table 2: Details of target landscapes (IUCN 2017)

Dry season landscape	Population	Absolute poverty	Area the target landscape (ha)	Estimated area of degraded land in target landscape (ha)
Sabarwawa/ Mid Tana River	400,048	55%	1,935,782	888,200
Chyulu Hills	220,627	57%	515,737	128,900
Total	620,675	56%	2,451,519	1,017,100

For each target landscape a mapping exercise was used to identify the landscape boundaries, although this is an imprecise exercise due to the nature of the terrain. Based on this exercise, counties and wards that fell into the each landscape were identified. This provided the basis for estimating the landscape population. Population data is taken from the County Integrated Development Plans (2013-2017), as reported in the feasibility study. Poverty estimates, from the same source, are based on 2012 data.

Data on land degradation in each county or ward was unavailable, so national estimates were used. Government of Kenya data estimates an average land degradation of 25% in semi-arid areas and 62% in arid areas. Using these estimates, the land degradation in each landscape was estimated (note that the Mid Tana/Sabarwawa landscape includes both arid and semi-arid counties).

Figure 5: Location of the project landscapes and coordination hubs

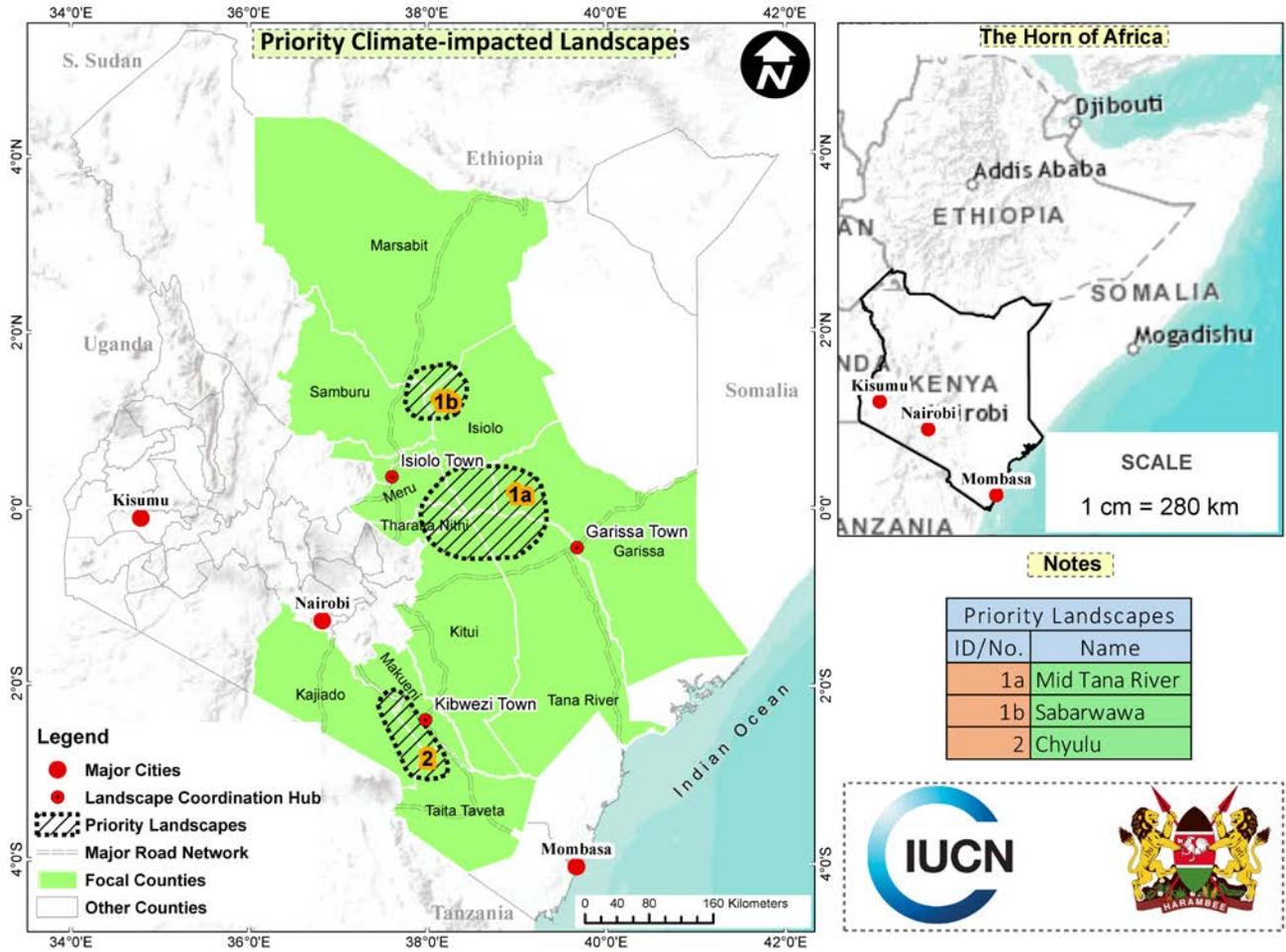
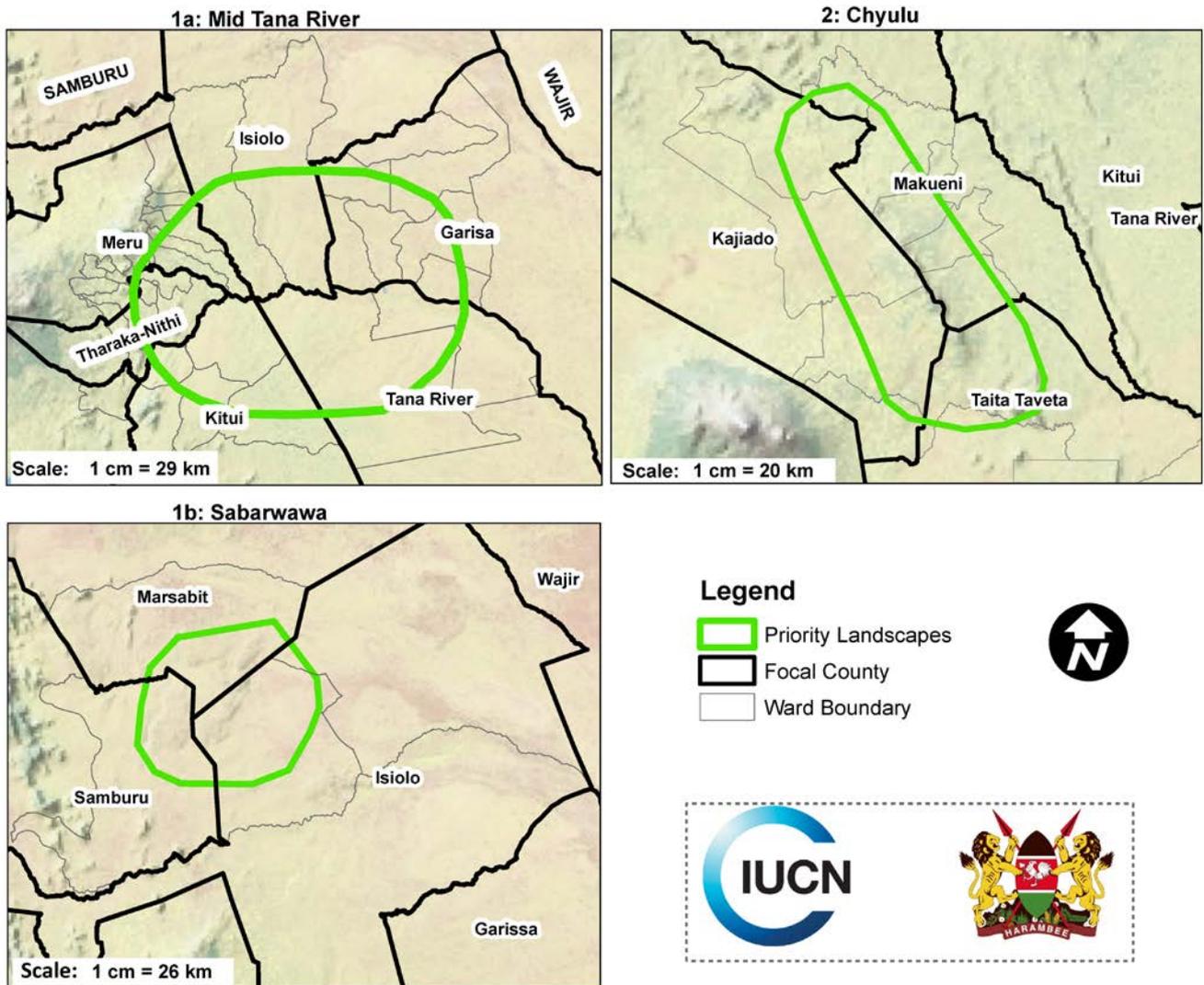


Figure 6: Maps of target landscapes and counties/wards



Objective and components in response to identified barriers

The GCF Fund-level impact objectives for this project are improved resilience of ecosystems and ecosystem services (A4.0) and increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions (A1.0). The expected outcomes are strengthened adaptive capacity and reduced exposure to climate risks (A7.0); strengthened institutional and regulatory systems for climate responsive planning and development (A5.0) and strengthened awareness of climate threats and risk-reduction processes (A8.0).

The overall objective of the project is to **reduce the cost of climate change induced drought on Kenya's national economy by increasing resilience of the livestock and other land use sectors in restored and effectively governed rangeland ecosystems.**

The objective will be delivered through three components, as outlined in Section H:

- Climate change adapted planning for drought resilience;
- Restoration of rangeland landscapes for ecosystem based adaptation;
- Climate change resilient ecosystem management for investments.

These 3 components respond to the priorities raised during consultation with partners and key stakeholders. The components will support sustainable progress in the main domains of interest: sustainable pastoralism, improved water management in anticipation of droughts, and enhanced value-chain production and markets for livestock and other products. The components will be implemented in parallel to each other.

The key to ecosystem based adaptation in Kenya's ASALs is to adapt restoration and sustainable management approaches to the scale of rangeland management, which is largely carried out communally over thousands of square kilometers and may involve tens of thousands of people. EbA approaches also have to be developed to deal with the naturally high levels of climate uncertainty, and their amplification as a result of climate change. EbA provides a unique opportunity to ensure that Kenya's national commitment to "Ending Drought Emergencies" responds to anticipated climate change as well as other ongoing changes that affect the ASALs.

The project builds on approaches that have been piloted in Kenya but which have not yet gone to scale. It takes a landscape approach to restoration, recognising that mismanagement of zones within a rangeland landscape can have far-reaching impacts due to the high degree of interconnectedness. It plays a vital role in addressing the two-way relationship between climate change and land degradation, which together contribute to increased drought risk. In doing so the project will contribute to reducing the cost of climate change on Kenya's national economy and will generate lessons that will inform the development of similar initiatives in many countries in Sub Saharan Africa.

Component 1: Climate change adapted planning for drought resilience

Component 1 will deliver Output 1: "Coordinated transboundary rangeland management decisions are strengthened by enhanced climate change analysis and participatory community and county planning". The component contributes to addressing the barriers of weak capabilities and inadequate governance institutions. Component 1 consists of 5 activities:

- Enhance information systems to inform climate change sensitive landscape planning and vulnerability/ risk management
- Strengthen community institutions to coordinate community planning and to inform and represent stakeholders in landscape planning
- Develop county rangeland restoration plans that build on local community plans combined with enhanced climate change data
- Establish functioning landscape management mechanisms in participating counties for climate change sensitive and accountable decision-making
- Establish participatory monitoring, evaluation and learning systems to support adaptive management

Component 1 will be led by the National Drought Management Authority to strengthen climate change analysis and vulnerability analysis (vulnerability assessment approaches) and to integrate this with improved assessment of rangeland landscape health status (participatory rangeland assessments). Component 1 will build on established information systems to incorporate improved analysis of climate change scenarios, projections and impacts (including early warning systems, down-scaled climate data, biophysical (e.g. degradation) and social data). This improved analysis will feed into mechanisms for cross-county landscape planning (landscape forums and county plans). Component 1 also strengthens community institutions for participatory planning and improved representation in decision making processes, which will also feed into these mechanisms for landscape coordination (inter-sectoral community level land-use plans based on sub-catchment management). Component 1 provides capacity building for local institutions to implement climate-sensitive landscape management. Component 1 will also establish monitoring, evaluation and learning systems to support adaptive management (using a range of tools and approaches).

Component 2: Restoration of rangeland landscapes for ecosystem based adaptation

Component 2 will be led by the Government of Kenya, through the Ministry of Agriculture and Irrigation – State Department of Livestock and will deliver Output 2: "Prioritized rangeland resources including water resources, are brought under restoration, safeguarded and sustainably managed for improved climate change resilience". This primarily address the barriers of rangeland resource degradation and low investment in rangeland restoration, and to a lesser extent barrier around inadequate governance institutions. Component 2 focuses on implementing restoration and sustainable management actions that are (i) prioritized by communities and (ii) informed by improved analysis, as delivered under Component 1. Component 2 consists of 5 activities:

- Implement priority community-based rangeland restoration activities
- Implement priority actions for integrated land/water management in catchments
- Install community-validated strategic water sources for sustainable rangeland utilization
- Assist communities to formulate bylaws and incorporate into county laws
- Build capacity of local institutions to implement climate-sensitive landscape management

Community-based rangeland restoration prioritizes natural regeneration of degraded rangelands through improved coordination and timing of herd movements (community grazing plans), as well as assisted natural regeneration, for example through reseeding (grass seed banks) and control of bush encroachment of invasive alien species (mechanical removal). Component 2 also supports integrated land/water management in

catchments, recognizing that a critical element in drought management is to protect scarce water resources by improving infiltration, soil moisture retention, and recharge of aquifers (re-establishment of vegetation cover, soil conservation practices such as stone lines and earth bunds). Rangeland restoration will be supported by installation and rehabilitation of small-scale strategic water resources (sub-surface, sand-dams, water pans, limited duration bore holes e.g. closed during critical periods) adjusted to the seasonal availability of adjacent pastures as well as the complexities of use and management rights.

A crucial element of Component 2 is to develop bylaws (through facilitated community planning) or other local resource management agreements that legitimize customary practices of resource sharing and regulation. Customary institutions have proven to be an effective way of ensuring sustainable management of communal resources, but they have come under strain due to a multitude of changes, including changing resource patterns as a result of climate change. Component 2 will develop bylaws and incorporate them into county laws in order to strengthen accountability and compliance over resource management as well as strengthening local institutions that will be supported to be compliant with current gender and youth representation norms.

An important aspect of Component 2 is to strengthen the capacity of local institutions to implement climate-sensitive landscape management. This includes improved access to, and capacity to use, information on climate change scenarios in relation to rangeland landscape resource use. It also includes developing skills to negotiate for appropriate use of natural resources within the wider rangeland landscape and as a viable component of the Kenyan economy at large.

It is important to note here that components 1 and 2 are to be implemented in parallel and not consecutively. Nonetheless there are certain elements at the community level that may benefit, although not necessarily have to be, carried out in sequence, although this could have limitations. For example the establishment of a women's grass seed bank does require a communal decision on location. That could be, but does not have to be decided as part of a community land-use plan. Tying the women's groups to the completion of the land-use plans may be counterproductive. Component 1 also contains the monitoring and evaluation. It is likely to be an impediment to the project to require progress on one element before proceeding to another.

Component 3: Climate change resilient ecosystem management for investments.

Component 3 will deliver Output 3: "Public, private and community investments in natural resources", addressing barriers related to insufficient investment in rangelands and poor access to markets and financial services. Component 3 will be led by Conservation International. Component 3 provides investment in priority value chains that have been validated by local communities through Component 1. The value chains will be supported by the restoration efforts. Restored and healthy landscapes will greatly improve rangeland health, and in turn the value chains that are dependent on them.

- Provide climate resilient investment in priority value chains that have been validated by local communities
- Provide grants to establish restoration enterprises created/led primarily by women's groups
- Establish financial incentive mechanisms for sustainable land management
- Provide grants to community-based enterprises for ecosystem based adaptation that could create opportunities for investments in the value chains

Priority value chains in the target landscapes include livestock value chains—for example meat and milk—as well as value chains for the secondary products of healthy rangeland ecosystems, such as gums and medicinal plants. These activities will increase incomes from natural resource management while also diversifying the sources of income, which contributes to mitigating risks associated with climate change. Workshops on value chains analysis will be used to validate the analysis and to engage value chain actors in the analytical process. These actors will be assisted to evaluate and the value chain analysis, assess the potential further development of the value chains, and identify investment opportunities that can catalyze their development.

Component 3 will establish restoration enterprises, such as community grass seed multiplication units or fodder reserves.

It will additionally develop the community-level autonomous Community Resilience Facilities, which operate per village and are a governance and financial mechanism to incentivize sustainable land management through community land use/restoration plans and by laws. Each community-owned and run facility is a revolving fund founded on a well-known village savings groups and is coupled with the participatory rangeland/catchment plans (Component 1) and bylaw development (Component 2). The funds (typically \$10-30) are community managed and given to community members according to their endorsement and household level compliance with the community-owned plan. The use of the fund is self-determined but can support the enterprises. The grant to communities, from GCF funds, is used to establish and capitalize the solidarity revolving fund, and becomes a long-term and growing asset at village level, with the revolving funds delivery mechanism the most equitable and

efficient mechanism to ensure all households benefit. It is adaptation of a 25 year well-established and near universal system well-known at community level and the adapted model has been tried and tested and operational for over 5 years and now being used in 4 countries.

Building on the participatory planning at community and landscape level (Output 1) and the value chain assessments (Activity 3.1) a larger scale grant mechanism will provide grants to community-based enterprises in, and associated with, the priority landscapes for supporting activities on sustainable land management and ecosystem restoration. These will include grants to community-based and climate change adaptation and restoration enterprises that could create opportunities for investments in grass, gums, resins, livestock and other value chains. Indicative grants might include: physical market infrastructure; equipment; cooling, processing, packaging; quality control equipment/ laboratory. Constraints include: identifying 'investment ready' deals, raising risk-tolerant capital and securing technical and other resources needed to demonstrate performance and meet investor expectations.

The model used will be additional to that developed under CI's new kind of responsible investment vehicle to deploy climate funds to assist restoration and land management businesses to upgrade their infrastructure, improve operational capacity, obtain certification to increase business value and unlock further capital. The GCF investment will be complementary and additional to CI loans, as it will focus on the supporting and enabling environment for investments and increasing the investment's resilience to climate change.

More specifically, the arrangement between GCF funded grants and CI loans are as follows:

- It will most commonly be the case that GCF funded grants alone are provided to early stage initiatives that require seed funding to develop the investment opportunity. These initiatives *could be* followed by a CI loan, should the business develop and become investable (from a CI perspective).
- It is more likely that a CI investment follows a grant; rather than simultaneous investment.
- The reporting function will provide information on the outcomes of each initiative leveraged through CI financing that has been leveraged through this project.

The grant will benefit communities by creating economic stability and incentivizing restoration and sustainable management of natural resources. The grants criteria will include:

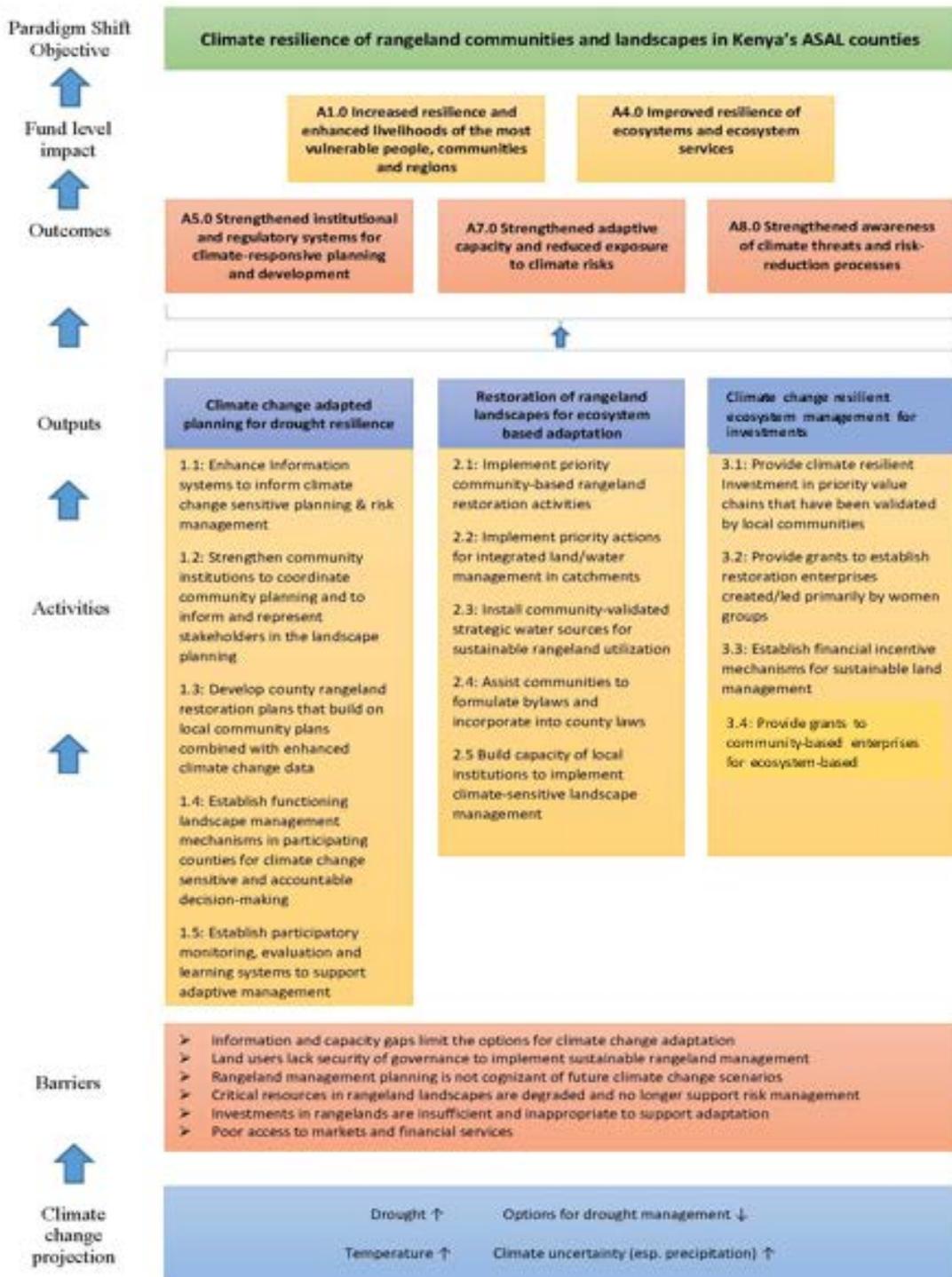
- A viable business model
- Potential for significant, measurable environmental and social impacts
- Potential to unlock future follow-on investment at scale
- Strong management capacity

Grants will be in the size \$10-250k depending on competitiveness, value added and capacity of the company. These will be used as climate-smart mechanisms to catalyze growth of community-based enterprises as well as the development of the value chain the landscape.

The relationship between the activities linked to the objectives, outputs and outcomes are presented in the Feasibility Study in the Annexes. The linkages are summarized in Figure 7 below.

Examples of grantees projects to be supported by this component are provided in Annex 12.

Figure 7: A Summary of the Intervention Logic - Linkages among project components, outputs, outcomes, and Fund objectives



C.4. Background Information on Project/Programme Sponsor (Executing Entity)

(a) The Government of Kenya, through the Ministry of Agriculture and Irrigation- State Department for Livestock (Component 2)

The Government of Kenya (GoK), through the Ministry of Agriculture and Irrigation (MoAI) has responsibility over the agricultural components, and thus ensuring sustainable land management in cultivated areas, grazing lands and through all aspects of the agricultural value chains. The MoAI also has direct links with the main land users, farmers who are decision makers affecting land use and its management. As such it offers an entry point for most of the interventions that promote SLM especially in the rural areas.

The State Department for Livestock in the Ministry of Agriculture and Irrigation promotes, regulates and facilitates livestock production for socioeconomic development and industrialization. The State Department for Livestock is organized into three directorates, namely Veterinary Services; Livestock Policy, Research and Regulations; and Livestock Resources and Market Development.

In Kenya, the Livestock Sub-Sector is informed by the Agricultural Sector Development Strategy (ASDS) and the National Livestock Policy (Republic of Kenya, 2012). The strategic objectives of the livestock sub-sector as encapsulated in the Agricultural Sector Development Strategy include increasing livestock productivity, increasing market access of livestock and the integration of development and management of rangeland. The State Department of Livestock implements this strategy through functions such as animal production, range management, livestock marketing, strengthening livestock extension services, apiculture and emerging livestock production, value addition and agribusiness.

(b) National Drought Management Authority (Component 1)

The National Drought Management Authority (NDMA) is a statutory body established under the NDMA Act 2016. The Act gives the NDMA the mandate to establish mechanisms which ensure drought does not result in emergencies, and that the impacts of climate change are sufficiently mitigated. NDMA is currently working in 23 drought-prone ASAL counties using local offices for long-term planning and action, as well as coordination across Government and other stakeholders. The Adaptation (ADA) Consortium secretariat piloting the devolved climate finance mechanism is housed at the NDMA.

(c) Conservation International (Component 3)

Conservation International, one of the world's largest conservation organizations, has been working in Kenya for 20 years, and works with local partners in several of the project priority landscapes. CI aims to leverage the power of public, private and local stakeholder cooperation to achieve impact at a landscape scale. Its approach focuses on natural capital conservation, sustainable production, and improving governance and local buy-in in specific subnational jurisdiction recognition of the dual need to protect forests and catalyze a shift towards more sustainable agricultural production. CI is working in Chyulu Hills supporting a successful REDD+ project. CI also works with private companies to transform production and sourcing practices to be sustainable, and to achieve impact at scale.

C.5. Market Overview (if applicable)

Not applicable: refer to feasibility study for details of markets for rangeland products and ecosystem services.

C.6. Regulation, Taxation and Insurance (if applicable)

Besides the EIA required for activities: i) Community-based rangeland restoration activities; ii) Integrated land/water management in catchments; iii) Installation of community-validated strategic water sources for sustainable rangeland utilization and, iv) Development of sustainable value chains, no further licenses or permits are required for the implementation of the Project.

As part of the country due diligence requirements in Kenya, CI engaged legal counsel on a number of items, including CI's registration/licensing requirements. It was confirmed that no regulatory requirements will be needed by CI for the advancing of loans and grants under Component 3.

C.7. Institutional / Implementation Arrangements

Governance structure of the project

IUCN is the Accredited Entity for this project. IUCN will therefore be accountable to the GCF on the use of funds, the overall implementation on the ground and achievement of the project's outcomes. Consequently, IUCN is responsible for providing strong technical oversight to this project and ensuring that all fiduciary rules, including procurement, to this project are compliant with IUCN and GCF standards. Similarly, the project is fully compliant with the IUCN environmental and social management system, which will be applied and monitored during the entire project lifetime.

Principles:

- Accredited Entity Fees related to the implementing function are dedicated to provide oversight to the project during implementation.

The Accredited Entity function for this project will be undertaken by IUCN building on the expertise of its regional office for Eastern and Southern Africa based in Nairobi Kenya, thematic expertise on drylands management and general oversight from the global finance unit and the IUCN GEF & GCF Coordination Unit.

As an Accredited Entity, IUCN's responsibilities are the following:

- Receiving, managing and disbursing GCF funds to the Project Management Unit (PMU) and project Executing Entities, ensuring that these disbursements are made as the project reaches successive milestones, showing steady progress in its execution. Any funds allocated to PMC will be retained and used by IUCN in its role for project management. The PMU will be housed by the MoAI;
- Overseeing project implementation in accordance with the Project document and Annual Work Plans and Budgets, procurement plans, disbursement plans and agreements with co-financiers and each executing agency rules and procedures, which will involve regular review of the project's progress that is delivered by the Project Management Unit;
- Submitting financial and technical progress reports to the GCF for all Project funds received from the GCF based on the project progress reports that it clears from the submissions of the Project Management Unit, who in turn have carried out this monitoring and reporting exercise done annually in consultation with the executing entities of the project;
- Carrying out annual supervision visits and a mid-term project review;
- Entering into Subsidiary Agreements between IUCN and NDMA, MoAI-SDL and Conservation International who will be executing the different components of the project;
- Managing the Landscape Coordination Hubs in each of the Landscapes;
- Making direct disbursement of activity finances into the project landscapes, financial reporting; and
- Providing technical guidance to ensure that the appropriate technical quality is applied to all Project activities.

Funds flow mechanisms

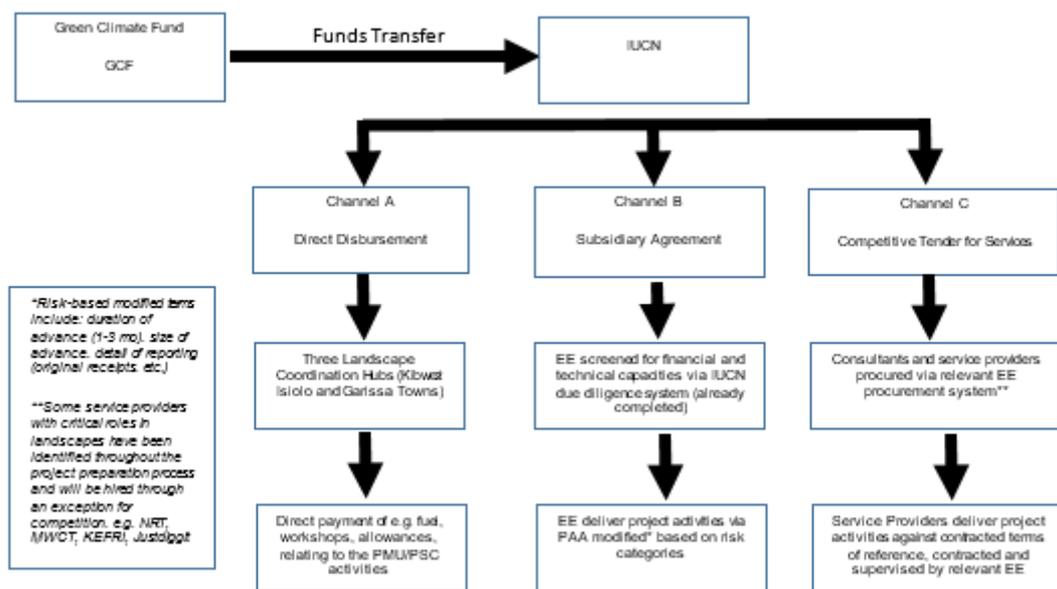
IUCN, as the project Accredited Entity, will request funds to be transferred from the GCF based on the Project Management Unit disbursement plan. All Executing Entities will prepare project disbursement requests to the Project Management Unit housed by MoAI and coordinated and managed by IUCN. Each of these Executing Entities (MoAI, NDMA, and CI) will have a Subsidiary Agreement with IUCN as the AE.

Executing Entity will enter into service agreements with service providers.

Project funds flow will be as per the below diagram. There will be three models of funds flow. These will be channeled through a) Direct Disbursement at the landscape level by IUCN in its role as an Accredited Entity

undertaking project management through the PMU. IUCN will operate, from within offices hosted by relevant county governments', three landscape coordination hubs. The second channeling mechanism will be by b) Subsidiary Agreements to Executing Entities, (MoAI, NDMA, CI) responsible for delivering each of the three components, which will work with service providers at the activity level. All these institutions have already been assessed and screened for financial and technical capacity. Once the project is approved, contractual arrangements with these institutions will be developed, and tailored to the level of risk (e.g. size and duration of advance). The third channel for funds will be c) service agreements to service providers, which will be selected on competitive basis based on EE procurement policy and under the supervision of Executing Entities. Some service providers have already been identified throughout the project preparation process, and these service providers will be hired through an exception for competition. These service providers include the following: i) Justdiggit will provide technical support to local-level restoration of degraded spots in the selected landscapes, ii) Northern Rangelands Trust (NRT) will technically support local communities in piloting rangeland management techniques and in developing priority value chains, iii) Masaai Wilderness Conservation Trust (MWCT) will technically support development of restoration enterprises including establishment of grass seed banks and support to participatory rangeland planning in southern rangelands, iv) Kenya Forestry Research Institute (KEFRI) will offer technical knowledge and requisite expertise to establish gums and resins enterprises in different areas, v) Water Resources Authority (WRA) will facilitate actions on watershed management and restoration, while vi) Kenya Water Towers Agency (KwTA) will bring expertise and approaches to restoration of key water towers in selected landscapes, and vii) The World Agroforestry Centre (ICRAF) will deliver technical tools, approaches and processes essential to community and county-level planning for land restoration.

Twende – Funds flow diagram



Project Steering Committee

A project steering committee (PSC) will be established to provide strategic-level project guidance, technical and policy advice to the Project Management Unit. The PSC will meet twice per year and ad-hoc when needed. Meetings of the PSC will be convened by the Chief of Party who heads the Project Management Unit.

The Project Steering Committee will review and advise on annual work plans and budgets submitted by the Project Management Unit. The Project Steering Committee is responsible for making recommendations to strengthen project execution and the achievement of results targeted. Project Steering Committee recommendations will be made in accordance with standards that shall ensure management for development results, best value for money, fairness, integrity, transparency and effective competition.

The Project Steering Committee will also monitor progress at the end of each agreed period based on annual project reports that the Project Management Unit submits to the PSC. The Steering Committee is

consulted on the planning of evaluations, and will receive the outputs from, periodic evaluations. It will also be informed of the outcomes of annual supervision visits and mid-term reviews.

The PSC will be composed as follows:

- Principal Secretary of the Ministry of Agriculture and Irrigation (Chair)
- Regional Director IUCN
- Nationally Designated Authority of Kenya
- Directors from relevant State Department for Livestock and CEO NDMA.
- CEO Council of Governors
- Representatives from participating counties and the ASAL NGO Consortium.

The duties of the PSC will include (but are not limited to):

1. Provide oversight of the Project Management Unit (PMU);
2. Consider and recommend approval of annual and semi-annual work plans and budgets.
3. Monitor progress through the review of progress reports by PMU at the end of each agreed project period (semester).
4. Consulted on Terms of Reference [for senior staff and major subcontracts].
5. Receive the outputs from, periodic evaluations and outcomes of annual supervisory and midterm reviews.
6. Approve annual reports by Project Management Unit.

The PSC is responsible to i) make strategic orientation decisions ii) support resource mobilization iii) facilitate integration of the results of Programme into policy processes and iv) consolidate the annual work plans, budgets and reports.

Project Management Unit

The project will establish a Project Management Unit (PMU), coordinated and managed by IUCN in partnership with and housed by the Ministry of Agriculture and Irrigation (MoAI).

The PMU will be responsible for the coordination of all project activities funded by the project and undertaken by the executing entities on the ground. The PMU comprised of technical experts will be constituted and specifically perform the following functions:

1. Consolidate the annual work plans submitted by the executing entities.
2. Responsible for all fiduciary matters, including financial management, procurement and project disbursements.
3. Ensure coordinated delivery of the agreed projects outputs and activities through the coordination of all partners, stakeholders and suppliers involved in project delivery.
4. Overall monitoring, evaluation, learning and application of knowledge products with the support of relevant experts involved in the project delivery.
5. Ensure that the safeguards framework is used throughout the project and raise any potential safeguards violations.
6. Ensure operational staff and supervise their work programs.

Given the geographic distribution of the project, the PMU will work with beneficiaries through three landscapes coordination hubs in Isiolo, Garissa and Kibwezi Towns.

The PMU will be composed as follows:

- 1 Chief of Party, responsible for overall coordination and management
- 2 Landscape Coordinators
- 3 Programme Officers

- 1 Senior Finance Officer
- 1 Programme Administrator
- 1 Driver

All Members of the PMU will be recruited under IUCN terms and conditions. They will report the Chief of Party, who will report to the IUCN Regional Director.

The project activities will be coordinated through three landscape coordination hubs. The landscape coordinators will ensure the smooth running of the project across the different institutions including the EEs, county governments, consultants, service providers and other partners, as well a coordinated planning and action across landscape stakeholders. As much of the activities is expected to be financed directly by the Landscape Coordination Hubs, the Landscape Coordinators will play a crucial role. They will be one of the signatories on the landscape hub bank accounts and be responsible for financial probity of activities. They will monitor and maintain technical competency and quality and play an important role in the monitoring, evaluation and reporting activities at the landscape level.

IUCN will have overall responsibility for ensuring that the ESMF is implemented. Each EE will need to ensure that the work that it does follows the ESMF guidelines and any work is factored in. One of the critical areas for ESMF compliance will be the participatory process and FPIC work.

NEMA will review and inspect ESIA reports for those activities that fall within the full environmental assessment threshold.

Executing Entities

Executing Entities are selected for the execution of the three project components and are therefore accountable for the delivery of the associated outputs. The project executing entities are:

- The Government of Kenya, through the State Department for Livestock, Ministry of Agriculture and Irrigation (Directorate of Rangelands)
- the National Drought Management Agency (NDMA)
- Conservation International

Chart showing which activities that service providers will support through invited sub-contracts under the procurement and supervision of relevant EEs. All other activities will be delivered by EEs.

Output	Activity	Service providers support
Output 1: Coordinated transboundary rangeland management decisions are strengthened by enhanced climate change analysis and participatory community and county planning: Executing Entity: NDMA	Activity 1.1 Enhance information systems to inform climate change sensitive landscape planning and vulnerability/ risk management	ICRAF
Output 2: Prioritized rangeland resources including water resources, are brought under restoration, safeguarded and sustainably managed for improved climate change resilience Executing Entity: MoAI	Activity 2.1 Implement priority community-based rangeland restoration activities	ICRAF, KWTA
	Activity 2.2 Implement priority actions for integrated land/water management in catchments	Justdiggitt, NRT. MWCT, WRA
Output 3: Public, private and community investments in natural resources	Activity 3.1 Climate resilient Investment in priority value chains that have been validated by local communities	Justdiggitt, NRT, MWCT, KEFRI

Executing Entity: CI	Activity 3.2 Provide grants to establish restoration enterprises created/led primarily by women's groups	Justdiggitt
	Activity 3.4 Provide grants to community-based enterprises for ecosystem based adaptation that could create opportunities for investments in the value chains	Justdiggitt, KEFRI,

Financial and fiduciary management

An implementing agreement will be signed between IUCN and the Chair of the Project Steering Committee representing the Government of Kenya through the Ministry of Agriculture and Irrigation (Executing Entity of the project) to regulate relationships between IUCN and the PMU for the implementation of this project.

Funds will be transferred to IUCN according to the Accreditation Master Agreement (AMA) related to this project. IUCN will retain any of the funds allocated to PMC to directly undertake project management. IUCN Headquarters Global Finance Unit will manage funds disbursements to the Project Management Unit based on semi-annual work plans agreed by IUCN ESARO supervision team. Funds will be hosted in a bank account dedicated to the project.

Funds flow models

- Subsidiary Agreement with specific executing entities that have passed due diligence for robust finance and administration systems (named above)
- To contractors following a competitive process
- Direct funds disbursement via a bank account established at each Landscape Coordination Hub locality

PMU is also responsible for the accounting and fiduciary management of all funds disbursed. The PMU will adopt IUCN's accounting systems and will be audited independently (auditors selected through a competitive bidding process where TORs are approved by IUCN Global Finance Unit) on a yearly basis.

Project locations

Landscape Coordination Hubs

The coordination and delivery of activities in each of the landscapes and the counties included within these counties will be actively facilitated by a 'Landscape Coordination Hub'. The hubs will be hosted by one of the county governments and housed in government offices.

Location	Landscape served	Covering counties
A. Garissa Town	1a Mid Tana River	Garissa, Tana River, Kitui, Tharka Nithi, Meru, Isiolo
B. Isiolo Town	1b Sabarwawa	Isiolo, Samburu, Marsabit
C. Kibwezi Town	2. Chyulu	Makueni, Kajjado, Taita-Taveta

C.8. Timetable of Project/Programme Implementation

Please provide a project/programme implementation timetable in [section I \(Annexes\)](#). The table below is for illustrative purposes. If the table format below is used, please refer to the activities as numbered in Section H. In the case of outputs, please mark when all the required activities will be completed.

A project timetable is included in Annex 8.

D.1. Value Added for GCF Involvement

Grant support from the GCF is justified for this project due to the limited purposeful investment to address ecosystem-based climate resilience in relation to drought in the ASALs. The project can build on existing investments in related works, as outlined under Section C, but initiatives are fragmented and often lack institutional support. There is a gap between the current approach to drought which focuses on humanitarian response and the long-term management of agro-ecological systems. Devolution creates powerful opportunities for change, but the ASAL counties suffer from a legacy of neglect and underinvestment, which has left them with low capacities to develop beyond the baseline scenario. ASALs face constraints of poverty and relatively low access to capital and financial services which the project is designed to overcome.

In a scenario without GCF funding, historical weather patterns will likely affect the vulnerability of communities and the ecosystems services that are generated from the surrounding landscape and the gap will grow between deteriorating land conditions and the emergency response to drought. In the counterfactual, a project would generate improvements in livelihoods with interventions that address the impact of weather patterns, namely drought, and the subsequent soil and land degradation, but without considering future changes due to climate change.

GCF grant support will be used to strengthen resilience in the target landscapes and for ASAL populations and will help sustain economic development in the ASALs and nationally. GCF funds will help to create an enabling environment that promotes investment in climate resilient livestock production, where livestock are managed in ways that reduce their impact on the landscape and in turn, face less risk of land degradation as a result of a vicious cycle of historical weather patterns, exacerbated by climate change. In the baseline scenario, communities would face a shrinking income and challenges to their livelihoods, whereas in the GCF scenario, linkages with markets to increase investment opportunities for climate resilient production are foreseen.

In the GCF funded scenario, climate risk and resilience are brought into this complex situation. With GCF financing, climate risk and resilience will be integrated into national planning focused at the county level. Climate information and early warning are key for planning in a way that factors in climate risk and opportunities for resilience at community and ecosystem level. Climate resilient land use planning and management means that the counties need to identify ways of using the landscape in ways that will not bring further risks to communities' vulnerability. Based on climate resilient planning, areas that would be at further risk from climate change such as water sources and livestock are able to withstand the impact of climate change. GCF funds thus help improve the resilience of water sources and the ecosystems that generate them

The project will thus make targeted interventions to capitalize on opportunities that enhance climate resilience whether in terms of stability in water supply, land that is not further degraded from climate change but in-fact restored, and a resilient value chain, particularly among pastoralists. Food security and income generation are among the benefits of a GCF scenario.

The project will develop enabling conditions for scaling up of investment and policy for resilience. The grant will contribute to reducing risks from climate change in order to enable long term investment. Pastoralism provides an important contribution to the national economy—estimated at between 3.9 and 8.8% of GDP—and is the dominant economic activity in the target counties. The rewards from creating an enabling environment for resilient pastoralism will be long lasting in the ASALs.

Kenya's Vision 2030 and the national policy of "Ending Drought Emergencies" provide a clear demonstration of the commitment to address recurrent droughts in the ASALs. However, climate change is increasing the frequency and severity of drought, presenting a challenge to existing strategies for drought management. The added value of GCF involvement is in adapting drought management to climate change from the level of individual land users up to county and national governments.

Despite a huge amount of effort and financial commitment by the government and development partners over many years to deal with climate risks and disasters (through relief and humanitarian interventions) in the ASALs, the trend remains an increasing number of relief-dependent people, increased poverty levels and vulnerability to climate shocks and stresses. This trend is influenced by climate change, which increases the frequency and severity of drought and

reduces the period of recovery between droughts. However, a confluence of other factors also aggravates this trend, including population growth, land degradation, and erosion of traditional drought management mechanisms. Climate change amplifies the impact of these negative trends in the ASALs and the GCF support is needed for Kenya to adapt its responses in order to make the shift from humanitarian dependency to sustainable development.

Drought responses in Kenya's ASALs focus on short term aid and frequently neglect the core issues of sustainable natural resource management, and how this is impacted by climate change. Ecosystems in the ASALs are central to building resilience and creating livelihood options for communities in the face of climate change. Ecosystem approaches are well recognized as a critical element of adaptation by the UNFCCC and constitute a fundamental pillar in Climate-Smart Agriculture (CSA), Disaster Risk Reduction (DRR) and the Kenya National Adaptation Plan. Yet ecosystems and ecosystem services will become more vulnerable and fragile as drought frequency and intensity increase in the ASALs. The GCF involvement will be used to build the knowledge, capacities and systems required to make ecosystem management central to climate change adaptation by rangeland managers in the ASALs.

The rationale of this GCF intervention is to unlock the full potential of holistic sustainable pastoral and agro-pastoral systems as optimal and resilient livelihood strategies and pathways for adaptation to climate change in the ASALs. Pastoral strategies of herd diversity, flexibility and mobility are rational and crucial for survival in risk-prone environments and they are based on the need to respond rapidly to changing climatic and vegetative conditions. GCF support provides an opportunity to overcome existing barriers to an alternative scenario that invests in restoring rangelands, improving livestock productivity and hence product market development in the dry rangelands. The benefits will be enhanced adaptive capacity, food security and economic growth. The GCF support will provide models for upscaling or replicating in the other 23 ASAL counties. GCF involvement will therefore further catalyze public private partnerships and increase the uptake of government policies to areas affected by drought forming about 80% of Kenya's land area.

Through this project, the Government of Kenya will learn valuable lessons that will be used in developing climate change adaptation investments in other drought-affected ASALs of Sub Saharan Africa. Pastoralism is practiced in various forms throughout the world and has frequently been shown to be the optimal, profitable and sustainable land use option in the rangelands offering adaptation benefits, contributing to climate change mitigation, and protecting biodiversity. Experiences in this project will be shared with 20 other Sub-Saharan African countries with pastoralist populations through IUCN's global drylands initiative.

D.2. Exit Strategy

The primary aim of the project is to establish a more enabling environment, through reducing climate related risks, for investments in the counties concerned by the project and resilient pastoralism in particular. Enhancing these enabling conditions in a sustainable manner in front of climate risks will justify the non-continuation of the project. This will have set the basis for climate resilient and adaptive economic development in the counties, which will enhance revenue generation and attract investments. Investments in pastoralism combined with restoration of rangeland ecosystems will enable faster recovery in the aftermath of droughts, reduced loss of GDP during, and sustained growth. By monitoring these impacts, the project will make the case to the national government for continued investment to build on the project outcomes.

The project contributes to strengthening the following dimension of sustainability:

1. **Biophysical sustainability** through restoration of rangelands, establishment of functioning landscape management mechanisms, and building capacity for sustainable rangeland management
2. **Legal/institutional sustainability** by strengthening institutional arrangements and capacities for rangeland landscape decision making and policy design
3. **Economic sustainability** by reducing the impact of drought on GDP and strengthening recovery rates and by strengthening value chains for the products of sustainably managed rangeland landscapes
4. **New data and analysis** on climate change predictions and responses for inclusive decision making
5. **Adaptation and coping** responses will be better planned for resilient and more diversified livelihoods

The primary aims of this project are to enable pastoralists to restore natural resources, to establish complementary infrastructure, and to develop stronger economies in order to support long term, climate-change adapted, sustainable management of rangelands. The success of the project should be evaluated against the effective continuation of information systems, local capacities, governance institutions and financial mechanisms.

Ecosystem based Adaptation in the rangelands support a shift towards protecting ecosystems as the basis for adaptation – both reducing the severity of climate-change induced natural hazards like drought (e.g. improved

hydrological cycles) and reinforcing the natural capital on which communities rely to manage the effects of those hazards. This requires, above all, a fundamental change in how county governments and national ministries adapt their approaches to managing land and water resources. The central role of government partners in this project is therefore of paramount importance.

The project will work through the devolved county structures to build their capacity and strengthen their asset base (including capacities). County governments have significant convening power and will be supported to provide policy and strategic support for rangeland landscape restoration and investments in resilience. Project outputs will be shared through inter county platforms, including the landscape fora established through the project. At the community and county level, the project will strengthen capabilities for climate change adaptation, including the capacity for using available information to inform rangeland management planning, and the capacity to implement those plans.

Supporting this at the county level will be an enhanced county planning and decision-making system supported by improved climate information and an information dashboard. County officials will be enabled to use this information in making improved climate change adaptation decisions and to allocate resources more effectively. An Early Warning System that will take account of land health status will be particularly important as a long-term asset for improved coordination of livestock management and other aspects of local livelihoods during drought.

The project will strengthen governance institutions at the local level and will support development of bylaws to increase the legitimacy of customary rules and regulations over rangeland management. The project will also strengthen local community organizations that play a role in implementing and compliance with these bylaws. Those community institutions are one of the most vital elements of sustainable rangelands management and the effectiveness of the project will be evaluated against their strength and autonomy.

Lastly, the project will strengthen investment in value chains and in restoration enterprises that will function beyond the life of the project and will be critical to maintaining ecosystem management. The engagement of private investors is crucial to ensure the long term viability of actions under this project. CI's Accelerator Fund has a particularly central role to play in overcoming the investment barriers and enhancing the investment readiness of conservation enterprises.

In the long term the project will leave a legacy of climate resilient and adaptive economic development in the target landscapes, with scale up to other ASAL landscapes in Kenya. A stronger enabling environment will lead to higher levels of appropriate investment which, combined with restoration of rangeland ecosystems, will underpin drought resilience and climate change resilience in pastoral livelihoods and will contribute to more stable and sustained growth nationally.

E.1. Impact Potential

Potential of the project/programme to contribute to the achievement of the Fund's objectives and result areas

E.1.1. Mitigation / adaptation impact potential

This section outlines the project impacts and their alignment with the GCF's Adaptation Logic model and performance indicators. Impacts are listed in order of relevance to the project.

Fund level impact A4.0: Improved resilience of ecosystems and ecosystem services.

GCF Indicator 4.1: *Coverage/scale of ecosystems protected/rehabilitated in response to climate variability and change.*

Target 500,000 hectares of degraded land under a restoration trajectory⁹. This represents 50% of the degraded land (1million ha), which in turn represents 40% of the total landscape (2.5 million ha). Restoration trajectory will be achieved through rehabilitation (e.g. reduced pressures such as overgrazing and land degradation through resource over-harvesting), restoration (e.g. through natural regeneration and where required replanting) and protection (e.g. through improved grazing, fire and water management). The project will target the equivalent of the Land Degradation Neutrality concept in target counties, by ensuring that degradation processes are balanced by an equivalent area of land under improved management leading to restoration.

Fund Level Impact A1.0: Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions

GCF Indicator 1.2: *Number of males and females benefiting from the adoption of diversified, climate resilient livelihood options (including fisheries, agriculture, tourism, etc.)*

Target 25% of men and women in the target landscapes (155,000 people) reporting enhanced, more resilient livelihoods (e.g. more resilient livestock production, diversification of income, increased access to markets etc.) as a result of rangeland restoration (e.g. diverse livestock products, harvesting and processing natural products).

E.1.2. Key impact potential indicator

Provide specific numerical values for the indicators below.

GCF core indicators	Expected tonnes of carbon dioxide equivalent (t CO ₂ eq) to be reduced or avoided (Mitigation only)	Annual	
		Lifetime	
	<ul style="list-style-type: none"> Expected total number of direct and indirect beneficiaries, disaggregated by gender (reduced vulnerability or increased resilience); Number of beneficiaries relative to total population, disaggregated by gender (adaptation only) 	Total	155,000 direct beneficiaries (74,400 of whom are women) 620,000 indirect beneficiaries (297,600 of whom are women)
		Percentage (%)	Direct beneficiaries are 25% of the total population of the two landscapes
Other relevant indicators	Reduced loss of income and assets (US\$) due to the impact of extreme climate-related events (baseline to be established).		
	The project will examine household perceptions of loss and damage during both normal and drought event years; and to attempt to identify proxies for socioeconomic resilience, including seasonal patterns of school attendance, and human and livestock health indicators.		
	Livestock productivity metrics are an unreliable indicator of change in rangeland condition due to the range of different factors that have an impact on livestock performance in communal rangelands. However, since		

⁹ The end goal of restoration can take decades to achieve, so the only measurable outcome through the project is that restoration is underway.

	<p>livestock are the mainstay of the local economy, the project will identify suitable indicators of livestock economic performance in the medium to long-term at a macro-level. This includes both the number of head of livestock marketed and the individual live-weight. This data will be combined with other indicators, such as change in seasonal milk yield (including the duration of lactation) and calf mortality rates. In combination these indicators will better reflect the management objectives of pastoral herders.</p> <p>Number of public and nongovernmental institutions with increased capacity for landscape restoration and climate resilience-building.</p> <p>The project will strengthen the capacity of 11 county governments to implement restoration and SLM actions at scale, by: 1) Strengthening local decision-making processes (governance, participation, stronger capacity to promote adaptive management); 2) Implementing restoration actions through financial incentives for community-led solutions; and 3) Monitoring the impact on resilience. The project will strengthen the capacities of at least 11 county institutions and at least 39 community institutions.</p> <p>Number of local bylaws and other resource management agreements established or adjusted to address climate change risks.</p> <p>The project will contribute to development of local resource agreements, bylaws and policies, including ones to address climate change risks, in all 2target landscapes.</p>
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E.2. Paradigm Shift Potential
Degree to which the proposed activity can catalyze impact beyond a one-off project/programme investment

E.2.1. Potential for scaling up and replication (Provide a numerical multiple and supporting rationale)

In the current paradigm, climate change information is centralized but is not widely available at local level. Capacities at the local level are comparatively weak, both institutionally and in terms of human resources, and the ASAL regions have experienced a long history of neglect and marginalization. The paradigm shift offered by this project takes advantage of the devolution process in Kenya to strengthen capacities and institutions at the county level, where greater accountability can be achieved towards rangeland populations. The project will build cost effectiveness by engaging community institutions in resilience building, strengthening community-based approaches (for example to restoration) and connecting them with private investors. The project will scale up scattered experiences and good practices in a more systematic way, enabling government to play a stronger role in coordinating climate change adaptation actions and in establishing favorable conditions for investments in resilience. The project will build cross-institutional collaboration in the long term, including through input to policy formulation.

Kenya lies 80% in the ASALs—the regions that are most affected by climate change—and these regions are the most underdeveloped in the country, which compromises adaptive capacity. To secure a future in which resilient rangeland ecosystems support adaptive pastoral livelihoods requires a comprehensive transformation of natural resource management in the ASALs. This transformation requires a paradigm shift, away from treating rangelands as low value areas where existing economic practices are a problem, towards recognizing the high value of rangeland ecosystem services and the inherent adaptability and economic rationality of pastoralism as a system for managing extreme climate risks and uncertainty.

The project will demonstrate how to scale up good practices that have been proven on a small scale but which need greater institutional support to be more widely adopted. In doing so the project will pave the way for comprehensive adoption of EbA in the target counties and scale up to all 23 ASAL counties in Kenya. Ultimately the aim is to use these experiences to inspire similar approaches in other rangeland countries of Sub Saharan Africa and even in other regions where IUCN is already actively working in ASALs.

The project will develop innovative financial instruments that specifically target restoration actions and which have a strong focus on social inclusion. Access to finance is generally weak in the ASALs, particularly for natural resource management, and women face particular challenges of access. The Community Resilience Facility ensures that women have access to resources and is tailored towards ensuring investment in natural resource management and conservation actions. CIs Accelerator Fund is designed to incentivize climate-smart private sector enterprises in the conservation and natural resources sector, where entry barriers act as a constraint to scaling up.

The alternate model of Ecosystem based Adaptation in rangeland ecosystems emphasizes improved access and use of information, stronger systems of governance for natural resource planning, stronger community organizations to coordinate sustainable use of communal resources, and strengthened value chains and investments to support livelihood

diversification and to incentivize restoration actions. Among the strengths of this approach are more secure land tenure, more secure access to seasonal grazing areas, protection of drought reserves, restored pastures in key landscapes, secured grazing corridors, and improved access to water infrastructure that is compatible with rangeland management.

This project offers potential for replicating and scaling up by:

Leveraging counties: The project will build capacities, incentives, institutions and knowledge management at the county level and nationally to enable counties to adopt climate-smart landscape planning for restoration and protection. The knowledge management component will explicitly focus on institutionalization at county and national levels, and will support outreach to other stakeholders to build momentum for scale up and replication. The project is designed to build the capacities of the recently devolved county governments, where there is clear demand, opportunity and potential for embedding climate resilience in sustainable development.

Platforms for take-off: A major boost to take-off in other locations is the proposed reliance on models and approaches tested in similar context but that need fine-tuning for this application. The project will scale up the following experiences of key partners and stakeholders:

- NDMA has developed drought resilience practices in all the ASAL counties that will be scaled up;
- The SHARED methodology focuses on changing behavior and building long-term capacity in evidence-based and cross-sectoral negotiation, planning and decision making;
- KEFRI has extensive experience in gums and resins enterprise development in the ASALs;
- IUCN has experiences in improved planning, bylaw and county law development;
- Conservation International has worked with private sector and civil society to develop various interventions in financing conservation actions, including climate resilience funds, green venture financing, seed bank enterprises, and fodder production.
- The project will generate long-term changes in planning and decision-making around annual budgeting and planning, incorporating climate and land health data and community priorities to accelerate resilience returns on investment.

Leveraging other initiatives: Existing experiences in landscape-scale Ecosystem-based Adaptation in ASALs in Kenya confer a foundation on which to build the project and to expand out from to other jurisdictions. Climate-Smart Agriculture initiatives in East Africa like those of ICRAF and the World Bank also offer important collaborative opportunities; as do several existing policy initiatives like the high-profile Bonn Challenge for restoration, in which each country sets a target for number of hectares planted by 2030 or another date.

E.2.2. Potential for knowledge and learning

The project is fundamentally based on collective learning, knowledge generation and dissemination at community, landscape county and national levels (Fig 15). Participatory approaches, action learning and most significant change monitoring tools will underpin the project information.

Stakeholder input and access to visual dashboards for enhanced decision making: Decision making will be supported by a visualized database in the form of a Climate Resilience Dashboard (Component 1). This is based on a Resilience Diagnostic and Decision Support Tool (RDDST) focusing on climate and land health that will be generated for each of the four landscapes. It is underpinned by the Land Degradation Surveillance Framework (LDSF), which has a strong analytical framework built into it for modelling and mapping of a range of indicators of ecosystem health (e.g. soil erosion, soil carbon, infiltration capacity, vegetative cover). The project will analyse data (livestock, water, conflict, sentinel sites, markets and productivity) for inclusion in the dashboard to support integrated landscape planning. Participatory co-design of visually accessible information will enhance uptake and action.

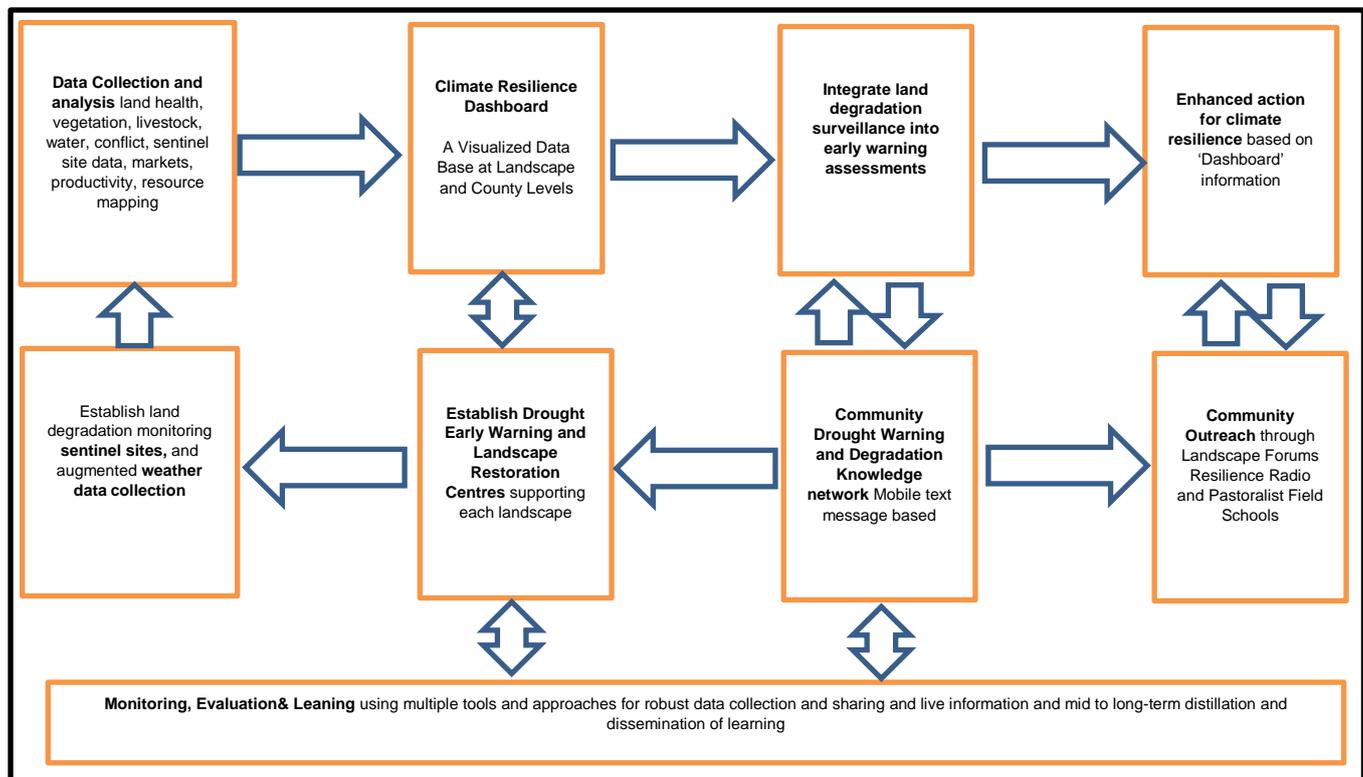
Stakeholder forums, extension and outreach. Stakeholder forums will be established in each landscape to provide multi-way communication and feedback on landscape issues, droughts and restoration action. This landscape level approach will be augmented with broader outreach based on large-reach radio programmes. Specifically, prepared programmes will allow caller and text-message participation beyond the landscapes themselves. Community extension services, primarily via pastoralist field schools and water resource users associations, will provide information, communication and feedback at the grassroots level.

Drought early warning and action information: Under Component 1, real-time information will be shared through a mobile phone messaging network to community leaders, CBOs, NGO's and out-posted government staff. Messages will include restoration, land management and extension material. The system will be operated from the information centres.

Information, training and capacity-building centres: Information centres will act as nodes for resources, information and communications. They will coordinate an active training programme for landscape-level actors in all aspects of the project focusing on drought early warning and ecosystem restoration. There will be one in centre in each landscape hosted by the county governments and housed within the Landscape Coordination Hubs.

Monitoring, evaluation and learning: The approach to MEL will include collecting information for immediate feedback use in the project as well a tracking project progress and longer term outcomes, impacts and paradigm shift and overall lessons. The project will use a range of tools outlined in section H2, including tracking changes in knowledge, attitude and skills; policy influence ranking scale; and tools such as PRAGA¹⁰, SHARED¹¹, Saiku and InVEST. Progress reporting and periodic evaluations will be carried out, to capture both expected and unexpected results. At project end, the combined resilience dividend will be estimated, and a value-for-money evaluation will be undertaken.

Figure 9: Communications, information, knowledge and learning elements



Support monitoring and assessment tools and centres: The project will scale up and institutionalize rangeland landscape planning, and will document and validate the approaches used to support further replication and scale-up. This will be supported through data collection, monitoring and assessment tools and knowledge management activities. Data will be collated in climate change technical support centres in each landscape hosted by the county governments and housed within the Landscape Coordination Hubs.

Dashboards to support integrated landscape planning: Under Component 1, a visualized data base called the Climate Resilience Dashboard will be developed at landscape level to support decision making and the use of the data collected. The project will collect and analyse data sets (land health, vegetation, livestock, water, conflict, NDMA sentinel site data, markets, productivity, resource mapping, etc.) for inclusion in the dashboard to support integrated landscape

¹⁰ <https://www.iucn.org/theme/ecosystem-management/our-work/global-drylands-initiative/gdis-projects/participatory-assessment-land-degradation-and-sustainable-land-management-grassland-and-pastoral-systems-praga>

¹¹ <http://www.worldagroforestry.org/shared>

planning. Participatory approaches will be followed for co-designing visually accessible and simplified information to enhance uptake and action.

Training in integrated systems management for climate resilience: Under Component 1 the project will train county, ward and landscape-level actors in integrated systems management for climate resilience. Training will include interactive use of information in the Landscape Dashboard and capacity development for embedding landscape resilience dashboards into planning processes and data management. A Resilience Diagnostic and Decision Support Tool (RDDST) focusing on climate and land health will be generated for each of the four landscapes. The RDDST makes visually accessible any additional data from government (The Government of Kenya through the MoAI-SDL, NDMA, KEFRI, NEMA, DRSSRS, County Government, etc.) and other organizations (e.g. IUCN, ICRAF, KWTA) and bilateral agencies (e.g. GIZ, USAID) (with full attribution) to enhance resources for climate resilience decision making.

Land Degradation Surveillance Framework: The land health component of the RDDST is underpinned by the Land Degradation Surveillance Framework (LDSF), which has a strong analytical framework built into it for modelling and mapping of a range of indicators of ecosystem health (e.g. soil erosion, soil carbon, infiltration capacity, vegetative cover).

E.2.3. Contribution to the creation of an enabling environment

The project will contribute to strengthening the enabling environment for implementing the national devolution process in order to strengthen ecosystem based adaptation and drought resilience in the ASALs. The project focuses on a key part of Kenya's economy that is highly exposed to the risks of climate change. Climate change resilience in the rangelands is important nationally, but it is particularly indispensable for sustainable development in the ASAL counties, where development is frequently set back by increasingly frequent drought events. By restoring rangeland ecosystems as the foundation of pastoral livelihoods the project will contribute simultaneously to mitigating drought emergencies (for example by diversifying the pastoral economy) and mitigating drought itself (reducing the frequency and severity of drought by restoring hydrological cycles and soil moisture retention).

The project will strengthen local institutions that can act as intermediaries between private investors and markets and local land managers, and reduce transaction costs for investors. Stronger resource rights are vital for sustainable economic growth. Clearer rights can mitigate conflicts that arise over land transfers and land use change, and ensure more equitable distribution of the benefits of economic development. Improved coordination and governance mechanisms developed by this project will support initiatives that address elements of climate change, resilience building, risk reduction, and sectoral planning to support agricultural growth.

Landscape planning strengthens the enabling environment by giving confidence to investors, (including communities themselves) about the long-term vision for land use and investments in restoration and sustainable land management. Landscape planning helps mitigate the externalities of investment that can undermine investments elsewhere in the landscape.

Enhanced information systems will provide potential stakeholders with greater clarity over the opportunities and potential rewards of engagement and investment. They allow the public sector to track the impacts of investment on social and environmental indicators, facilitating evaluation of the suitability of different investments.

Climate Information and resource centers will integrate local and scientific sources of information on the state of land, soil, water and biological resource, and drivers of change. These will be hosted at the landscape level, with web information shared with other towns and management centres. A text messaging service to support dispersed communities will also be established. It will provide information on early warning, market access, grazing pressures and security alerts.

Strengthening local capacities is a vital measure to enable the participation of different actors in climate- resilient development. Communities are frequently disadvantaged in development programs and investment projects, due to the low level of formal education and the lack of exposure to new ways of doing business. Stronger communal resource management capacity will enable more equitable and more stable investments in restoration and sustainable land management initiatives and complementary investments.

The project scales up innovative community mechanisms to provide capital for local restoration and sustainable natural resource management. Value chains need marketing expertise and business-savvy plans to boost production and quality of natural products from restored landscapes. The Community Resilience Facility is one financial mechanism to build on that matches a community-owned land use plan with a community-owned solidarity fund to incentivize sustainable land management. Small grants will also be considered for other community-based enterprise value chain actions.

E.2.4. Contribution to regulatory framework and policies

The project contributes to implementing Kenya's National Adaptation Plan (NAP, 2016), which prioritizes promoting access to climate finance by county governments and vulnerable communities to implement priority climate change actions. The goal of Kenya's National Adaptation Program (NAP) is enhanced climate resilience towards the attainment of Vision 2030, encompassing strong economic growth, resilient ecosystems, and sustainable livelihoods for Kenyans. These were defined and costed for short term (1-2 yrs), medium term (3-5 yrs) and long term (>6 yrs). The Priority actions for the Disaster Risk Reduction under NDMA, Livestock and Ecosystems are presented in the following table, clearly demonstrating how the project is aligned with the national priorities.

Table 3: Table Priority adaptation actions for the key subsectors

National Drought Management Authority – Disaster risk reduction	
Action	<ul style="list-style-type: none"> • Fast Track the Implementation of the Ending Drought Emergencies Framework
Short Term Sub-actions	<ul style="list-style-type: none"> • Address the conditions that Perpetuate vulnerability
Medium Term Sub-actions	<ul style="list-style-type: none"> • Enhance Productive Potential
Long Term Sub-actions	<ul style="list-style-type: none"> • Strengthen Institutional Capacity for Effective Risk Management
Livestock sector	
General Action	<ul style="list-style-type: none"> • Enhance the resilience of the livestock value chain
Short Term Sub-actions	<ul style="list-style-type: none"> • Increase awareness on climate change impacts on the livestock sector • Strengthen land use management systems including rangeland management, fodder banks and strategic reserves • Conduct capacity building in indigenous knowledge, livestock insurance schemes, early warning systems, early action, livestock management and breeding
Medium Term Sub-actions	<ul style="list-style-type: none"> • Develop new feed formulation • Promote livelihood diversification and market access • Establish price stabilization schemes and strategic livestock based food reserves • Restore degraded grazing lands
Long Term Sub-actions	<ul style="list-style-type: none"> • Enhance selection, breeding and management of animals to adapt to climate change • Promote climate smart agriculture
Environment	
Action	<ul style="list-style-type: none"> • Mainstreaming of climate change adaptation in the Environment sector
Short Term Sub-actions	<ul style="list-style-type: none"> • Strengthen early warning and climate information services through improving the Climate Information Service Providers network and enhancing integration of local/indigenous knowledge into early warning systems. • Enhance participatory scenario planning with communities. • Undertake climate vulnerability and risk assessments on ecosystems and provide guidance on relevant adaptation actions. • Strengthen tree-planting and conservation initiatives
Medium Term Sub-actions	<ul style="list-style-type: none"> • Strengthen the capacity of national and country institutions responsible for coordinating climate change adaptation, • Improve and expand the existing climate change modelling work of KMD.
Long Term Sub-actions	<ul style="list-style-type: none"> • Provide guidance on and improve access to climate resilient trees and cultivars, • Integrate ecosystem and community based approaches in sector strategies, • Rehabilitate water catchment areas to provide sustainable ecosystem services.

The National Adaptation Plan (NAP) builds on the National Climate Change Response Strategy (NCCRS) National Climate Change Action Plan (NCCAP) and is the basis for Kenya's INDC response to the Paris Agreement. The NAP builds on the Adaptation Technical Analysis Report (ATAR) developed under the NCCAP, which provided a detailed analysis of the sectors and vulnerabilities in the various counties, sectors and economic processes. The NAP is also aligned with the Climate Change Act enacted into law in May 2016. In the MTP II sectors, climate change adaptation is represented in the drought risk management and ending drought emergencies, environment, water, energy, agriculture, livestock, and fisheries sectors.

Kenya's Intended Nationally Determined Contribution (INDC) prioritized mainstreaming climate change adaptation into County Integrated Development Plans (CIDPs). The principle contribution of this project is to "Climate smart agriculture (CSA) in line with the National CSA Framework", although considering the tree cover in rangeland landscapes the project will also contribute towards "achieving a tree cover of at least 10% of the land area of Kenya.

The project contributes to implementation of Kenya Vision 2030” and the national policy of “Ending Drought Emergencies”, which is included in the NAP. This will be accomplished by capitalizing on the national process of devolution, which is advancing but many counties still requires assistance to establish new ways of working that take advantage of increased local autonomy, accountability, legal frameworks, larger budget allocations and enhanced coordination. The explicit focus of the project is to build the capacities and institutions required for improved implementation of devolution to achieve greater climate change resilience in the ASALs. Kenya has a large body of relevant policies and legislation but these are not well reflected at the county level. The project will support establishing or strengthening the climate adaptation and rangeland management laws at the county level.

The county legal framework will be supported to specifically empower community land management rights. By linking these rights with national water management at the catchment level, this allows the development of legally mandated sub-catchment management plans (SCMPs). It is a priority of the project to support communities to formulate participatory land use and resilience plans to establish local bylaws, and to develop compliance with the bylaws for improved governance.

E.3. Sustainable Development Potential

E.3.1. Environmental, social and economic co-benefits, including gender-sensitive development impact

Environmental co-benefits

- Improved governance of rangelands will reduce soil erosion and enable more sustainable management of rangeland resources, allowing natural and assisted regeneration
- Restoration of degraded rangelands will lead to an increase in biodiversity and rehabilitation of ecosystem services
- Restored rangelands will sequester and store higher levels of carbon in soil and in vegetation
- Restored rangelands will infiltrate and store more moisture, contributing to recharge of aquifers and boosting range productivity, biodiversity, and sequestration of atmospheric carbon

Economic co-benefits

- Ecosystem restoration will mitigate both drought and the effects of drought
 - Restored rangeland landscapes will conserve more water, reducing the severity of drought and reducing moisture deficits in normal dry seasons
 - Restored rangeland landscapes will provide a range of resources that are used to reinforce rangeland livelihoods, including drought coping strategies
- Increased infiltration in restored landscapes will recharge aquifers, contributing to livestock productivity and health
- Restored landscapes foster adaptation options:
 - Increased adaptive capacity at county, landscape and community level through climate-proofing value chains
 - Resilient production systems through adoption of climate-adaptive practices and technologies for production, processing and marketing of livestock and agricultural goods, improving producers’ access to markets, and revenues generated.
 - Transformative and inclusive investments will be made at critical points in product value chains that allow pastoralists to trade surplus goods on local and regional markets at fair prices. Activities will be targeted to address barriers to adoption such as upfront costs, income foregone during the transition period, and the risks of introducing new inputs or products to the market.
- Smallholder capacities will be built to adopt more sustainable production practices, address environmental sustainability, increase access to livestock markets, and increase their competitiveness and ability to adapt to drought-induced changes in land productivity and markets.
- Improved grazing management in the selected landscapes will contribute to increased livestock health, productivity, survival rates and post-drought recovery.
- Sustainable pastoralism combined new climate smart agricultural techniques, featuring water management and reduced tillage, will reduce water demand for irrigation and crop intensification.

Social co-benefits

- Gender benefits include partnerships with the private sector and stimulus programs targeting women, youth and marginalized groups, which will help build resilience along value chains. Two key barriers that suppress livelihood participation by these groups will be addressed, including insufficient access to product markets, due to high transport costs from remote pastoralist communities; and lack of market information.

- Access to finance strengthens the adaptive capacity of households and communities, by providing start-up capital for small businesses that provide alternative income during drought livestock sell-offs and losses.
- Rehabilitation of water cycles is expected to impact positively on water availability (e.g. increased infiltration) and quality (e.g. reduced sedimentation). This will improve access to water and the cost of water supply in dry seasons.
- Local governance, participation and accountability will be strengthened, contributing to wider processes of citizen engagement and accountability. Revival of communal herding arrangements will reinforce the social fabric central to pastoral livelihoods and to pastoralist risk management strategies. This includes collective action for herd mobility and resource management as well as traditional systems of social capital that underpin drought management, such as herd splitting and resource sharing
- The project will contribute to more integrated social protection systems becoming more accessible to the vulnerable.

E.4. Needs of the Recipient

Vulnerability and financing needs of the beneficiary country and population

E.4.1. Vulnerability of country and beneficiary groups (Adaptation only)

The recipient of the project is the government of Kenya. Kenya has recently become a lower middle income country and it is highly exposed to the risks of climate change. The ASALs, which dominate the country, are projected to be particularly affected by climate change, and will be greatly affected due to a legacy of under-investment. Kenya has established policies that can remedy this situation, but the country requires a boost to establish an enabling environment so that ASAL counties can take advantage of the opportunities offered by devolution and the country's commitment to "ending drought emergencies".

At the local level, beneficiaries of this project are rangeland communities, with a primary focus on pastoralists, and specific attention to the roles, responsibilities, and needs of pastoralist women. Pastoralists are among the most disadvantaged populations in Kenya, performing poorly on basic human development indicators like mortality rates and literacy levels. Kenya's ASALs have fewer social services per capita and less infrastructure. Livestock production in the ASALs accounts for over 70% of the country's livestock, but livestock products, including milk, meat and hides, are under-valued and under-marketed in the ASALs due to challenges of market access.

Severe droughts have been recorded in Kenya for 23 of the 51 years from 1960 to 2011. Recurring and persistent drought in these regions has been attributed to climate change. The greatest challenge to pastoral livelihoods in the ASALs is coping with unpredictable rainfall, climate variability and change. These climate-related challenges contribute to high levels of vulnerability, when combined with weakening of natural resource governance, low investment in basic services, and resource conflicts.

Food security and nutrition crises resulting from protracted drought undermine pastoralist coping capacities and exacerbate their vulnerabilities. Kenya faced a food crisis for most of 2017 due to recurrence of drought in shorter cycles, negating efforts to reduce vulnerabilities. The areas affected also face entrenched poverty, limited investment and intermittent conflict. Humanitarian partners in Kenya in September 2017, appealed for USD106 million to scale up their response to the most urgent and lifesaving needs resulting from the egregious effects of the drought in northern Kenya.

Impacts of climate change on water and production systems: The effects of the drought are always most severe in the ASAL areas, often characterized by complete depletion of pastures, lack of water for livestock, massive movement of animals in search of water and pastures and heightened incidences of livestock diseases. Drought contributes to deterioration of animal body condition, low birth rates and high mortality rates. Water pans store water but dry up with increased return distances for water trucking, sometimes more than double; increasing waiting time at water sources for women; and exceptionally high costs of water in many areas. In Marsabit in the far north, the cost of a 20-litre jerry can has reached Ksh 50 (\$0.50)—10 times the normal cost of Ksh 5 (\$0.05). Traditional mechanisms for managing climate variability are being closed off, such as livestock mobility and careful rotation among drought reserve areas.

Intensive land uses are expanding and ASALs are being converted to arable land at an increasing rate. Soil carbon stocks in semi-arid environments can decrease by 30 percent in less than five years when native vegetation or pastures

are converted to cropland.¹² However, sustainable pastoralism will continue to be the optimal, most profitable and sustainable land use option in dry rangelands. If investment and incentives like those proposed in the project are implemented in the ASALs, an adaptive model of resilient pastoralism is feasible. This alternate model needs to feature more secure land tenure, access to dry season grazing areas, rehabilitated and restored pastures in the landscapes, secured grazing corridors, improved access to climate resilient water infrastructure, and improved market access. It would offer significant adaptation benefits, reducing land conversion and promoting the adoption of sustainable land management practices. Strengthened pastoral production systems through ecosystem based adaptation would prevent higher emissions, reduce water demand through irrigation and intensification, reduce alienation of local communities and instead enhance their adaptive capacity to the changing climate.

The project will reduce vulnerability to drought and will contribute to food and water security by restoring and safeguarding rangeland ecosystem services, by reinforcing local governance and decision making, and by strengthening markets for rangeland ecosystem services.

E.4.2. Financial, economic, social and institutional needs

Kenya's economic growth has been robust in recently years, but climate change is contributing to an increasing frequency of drought, which has been shown to retard economic growth by as much as half (i.e. down from 5.5% per annum to around 2.8% per annum in 2011). ASAL regions have been left behind in Kenya's rapid progress and, in the context of climate change, they now represent a constraint to national progress. Counties now have greater access to resources, but institutions and capabilities are weak. An absence of other sources of suitable funding prevents the ASAL counties from addressing urgent needs related to climate change and ecosystem based adaptation.

Major contributors to GDP in 2016 were agriculture, forestry and fishing (15.2%), manufacturing (6.3%), real estate (12.3%) information and communication (6.1%), construction (8.2%), transport and storage (9.7%) and financial services (7.3%). Annual total trade is about 40% of Kenya's GDP, but the global share is very small. The bulk of exports are raw materials and primary products, while imports are high-value capital and finished products, sustaining persistent trade deficits. Kenya's food security is dependent on imports. While self-sufficiency has improved, post-harvest losses, low agricultural productivity and frequent weather shocks remain constraints.

Expansion of crop farming is taking place at the expense of pastoralism and is mostly unplanned and quite opportunistic. Drought has particularly damaging impacts on rain-fed farming, but irrigation farming can have even more harmful impacts on the pastoral economy by using scarce water resources and by rendering key tracts of land unavailable for grazing. Unplanned encroachment of rangeland resources has both economic and social costs that are poorly understood.

Kenya's population of 40 million grows at an estimated 2.9 % per year. The population is projected to reach 51 million by 2025, 96.9 million by 2050 and 160 million by 2100. 10 million people currently suffer from chronic food insecurity and poor nutrition of which 2 to 4 million require emergency food assistance at any time and nearly 30 per cent of Kenya's children are classified as undernourished, while micro-nutrients deficiencies are widespread.

The affected population is the poorest in Kenya and experiences extreme frequent drought events that negatively impact on their livelihoods. Drought occurrence has become increasingly severe during the last decade with rainfall totals of 50–75 % below normal encountered in most areas, amounts that are not sufficient to support crop and pasture growth for livelihood security. The pastoral economy in the ASALs' of Kenya accounts for 90 % of all employment opportunities and 95 % of family income and livelihood security (Kenya ASAL Policy, 2012). The most widespread non-pastoral livelihood option is charcoal production, with some engagement in micro businesses. The livelihood diversification activities are dominated by women.

Effective management of rangeland landscapes is constrained by the lack of a supporting institutional environment, including policies for better integrated planning. However, devolution and the establishment of county authorities provides an important opportunity for strengthening inter-sectoral planning. Effective implementation of programs is constrained

¹² Noellemeyer, E., Frank, F., Alvarez, C., Morazzo, G. & Quiroga, A. 2008. Carbon contents and aggregation related to soil physical and biological properties under a land-use sequence in the semiarid region of Central Argentina. *Soil & Tillage Research*, 99: 179–190.

by poor links among central government agencies, and between national, county and community levels. Even with the devolved governance structure there is need for more inclusive approaches in policy development and strengthen vertical and horizontal flows of communication.

There is need therefore to strengthen institutional capacity in line with the various ambitions and policies including the National Adaptation Plan (NAP), the Kenya Climate Smart Agriculture Strategy, the Kenya Strategic Investment Framework for Sustainable Land Management, the ASAL Policy and Livestock Policy among others. The NAP pioneers landscape level Ecosystem-Based Adaptation in ASALs in Kenya and builds on the rationale for Climate-Smart Agriculture (CSA) in ASALs with the aim to sustainably increase productivity, enhance resilience (adaptation), reduce GHGs (mitigation) where possible, and enhance achievement of national food security and sustainable development goals¹³.

E.5. Country Ownership

Beneficiary country (ies) ownership of, and capacity to implement, a funded project or programme

E.5.1. Existence of a national climate strategy and coherence with existing plans and policies, including NAMAs, NAPAs and NAPs

Kenya offers a rich climate and drought policy environment upon which to build this new project. The Climate Change Act (2016)¹⁴ was stimulated by the impacts of climate change being observed, and establishes structures to coordinate climate change activities from national to county levels. Kenya has been in the forefront of advocating for policy responses to climate change, and launched a National Climate Change Response Strategy (NCCRS) in 2010¹⁵, and National Climate Change Action Plan (NCCAP) in 2013. The NCCAP¹⁶ performed an adaptation technical analysis of economic sectors and prioritized adaptation actions, including integrating climate resilience into planning, budgeting and implementation of activities at national and county levels. Some counties are developing or now implementing climate change policies and legislation, e.g. Makueni County Climate Change Fund Regulations and Wajir County Climate Fund Act (2016)¹⁷. This work was spearheaded by the Department for International Development's Strengthening Adaptation and Resilience to Climate Change in Kenya Programme of the Adaptation Consortium (Ada) in the National Drought Management Authority (NDMA).

Kenya's Intended Nationally Determined Contribution (INDC)¹⁸ prioritized mainstreaming climate change adaptation into County Integrated Development Plans (CIDPs). The INDC bolsters the National Adaptation Plan (NAP, 2016), which prioritized promoting access to climate finance by county governments and vulnerable communities to implement priority climate change actions, based on four criteria: urgency and ease of implementation in the short term, compatibility with the NCCAP Adaptation actions, compatibility with the Vision 2030 Medium Term Plan actions and low regret options if implemented. These were defined and costed out for short term (1-2 years), medium term (3-5 years) and long term (>6 years).

E.5.2. Capacity of accredited entities and executing entities to deliver

About IUCN (AE): This project takes advantage of IUCN's unique status as a union of both state and non-state members. Kenya is a state member of the union and IUCN is a trusted partner of government with experience in working on policy formulation and implementation. IUCN combines this profile with a long history of working with nongovernment members in strengthening rights and building capacities. IUCN also has a strong reputation as a science/knowledge based organization, with strong institutional capacity in the fields of Land Degradation Neutrality, ecological restoration, and Ecosystem Based Adaptation. IUCN is at the forefront globally in setting policy and practice in dryland management.

¹³ Climate-smart agriculture contributes to the goals of making sustainable development concrete and integrates the three dimensions of sustainable development in addressing food security and climate concerns in a forward-looking perspective.

¹⁴ <http://www.kenyalaw.org/lex//actview.xql?actid=No.%2011%20of%202016>

¹⁵ Government of Kenya/Ministry of Environment and Mineral Resources. 2010. National Climate Change Response Strategy. Nairobi.

¹⁶ www.kccap.info

¹⁷ <http://www.adaconsortium.org/index.php/309-wajir-county-set-to-access-kes143m-for-climate-change-adaptation-and-resilience-building.html>

¹⁸ www.environment.go.ke/wp-content/uploads/2015/07/Kenya_INDC_20150723.pdf

This project builds on IUCN extensive experience in implementing transboundary projects and in supporting the processes of decentralization, in Kenya and in other countries in the region. IUCN has implemented ASAL management and forest landscape restoration in Kenya since 2008, in close partnership with government and NGOs program there. IUCN has developed approaches to strengthening ASAL governance, restoring and sustainably managing rangelands and forest landscapes, strengthening value chains at the local level, promoting incomes from biodiversity, economically valuing ASAL ecosystem services, and promoting measures to enable local benefits.

IUCN's experiences in climate change adaptation in Kenya include: support to the Ministry of Water to adapt sub-catchment management planning to the arid and semi-arid lands; cross-border adaptation dialogue between pastoralist communities in Kenya, Ethiopia and Tanzania; adapting built and natural water infrastructure for livestock in Isiolo and Garissa Counties; developing a resilience framework to support climate change adaptation in Mt. Elgon region in western Kenya; demonstrating natural infrastructure as a nature-based solution to climate change; and promoting transboundary river governance in the IGAD region.

In January 2016, IUCN established a Hub for Forest Landscape Restoration directed by its Nairobi office, to support Kenya and other nearby countries, organizations, communities and enterprises in experimenting with and adopting landscape and forest restoration approaches.

The Government of Kenya (GoK), through the Ministry of Agriculture and Irrigation (MoAI):

The State Department for Livestock (SDL), under the Ministry of Agriculture and Irrigation, a line ministry of the Government of Kenya, will execute the project on behalf of the ministry. SDL has experience in strengthening management of rangeland resources through the Regional Pastoral Livelihoods Resilience Project (RPLRP). RPLRP is a regional project financed by the World Bank between 2015 and 2019 and concurrently implemented by three IGAD member states: Ethiopia, Kenya and Uganda. The objectives of the RPLRP are improved livelihoods for pastoral and agro-pastoral communities' in cross-border drought prone areas and capacity building of the government to respond crisis or emergency. The project's coordination unit is housed in the MoAI and the project is implemented in 14 counties including Baringo, Garissa, Isiolo, Kajiado, Laikipia, Lamu Mandera, Marsabit, Narok, Samburu, Turkana, Wajir, Tana River and West Pokot.

National Drought Management Authority (NDMA):

NDMA implements project-based interventions directly affecting household food security and livelihoods of more than ten million people. It provides a platform for long-term planning and action, as well as a mechanism for solid coordination across Government and with all other stakeholderall in matters relating to drought management in Kenya together with adaptation and resilience building in the Arid and Semi -Arid Lands (ASALs).

NDMA administers the National Drought Contingency Fund in Kenya and disbursed Ksh 53 million to seven ASAL counties in 2016.

Conservation International (CI):

CI, through its Conservation Finance Division (CFD), has invested more than US\$450 million in over 80 countries and territories, through various mechanisms and instruments, helping secure the protection of more than 90 million hectares of high-value habitat. CFD has supported over 2,000 partner organizations globally through direct grants and loan financing, and through its investments has leveraged over US\$520 million to directly benefit communities and ecosystem services, including more than US\$50 million of private-sector investments.

CI has created more than 20 Trust Funds in various jurisdictions and leveraged more than US\$200 million in public and private sector funding through these innovative mechanisms to ensure long-term financial sustainability of the interventions. Since 2009, CI has also been one of the world's most active investors in land-based mitigation and adaptation projects, developing a core portfolio of projects that have attracted over US\$30 million in carbon finance and helped protect or restore over a million hectares of critically important land in Latin America, Africa, and Southeast Asia.

For this project, CI will be building on CI's responsible investment mechanism that deploys philanthropic capital to start-up and growth-stage enterprises that operate in key conservation areas. Focused on impact first, CI works up front with a network of investment partners to secure follow-on financing and define paths to financial sustainability for its portfolio of projects.

E.5.3. Engagement with NDAs, civil society organizations and other relevant stakeholders

Intensive stakeholder consultative processes at community/county and national levels have driven the formulation and development of the project. The project design team was drawn from the relevant line ministries, state agencies, county government representatives, international and national NGOs, and local communities under the oversight of NDA.

Multi-stakeholder meetings with the NDA began when the project was first conceived in late 2016, and have continued frequently during 2016 - 2018(2-3 times/month).

This widespread engagement in developing the project builds on past consultations on the foundation of experience, networks, and intellectual capital accumulated from previous projects to address drought, pastoralism models, and supply-chain market models in drylands. By employing lessons demonstrated by other projects, the project can replicate and upscale the most effective and transformative interventions to build resilience to drought and other climate impacts in the targeted landscapes.

A total of over 250 stakeholders have been participated in various consultation and multi-stakeholder workshops including: 1) government agencies, Ministry of Agriculture and Irrigation – State Department of Livestock, National Drought Management Authority, the Council of Governors, Kenya Water Towers Agency, Kenya Forestry Research Institute, Kenya Water Resources Authority, Kenya Forest Service, Kenya Wildlife Service, Department of Resource Surveys and Remote Sensing and Kenya Agriculture and Livestock Research Organization; 2) county technical and executive officers for Environment, Water, Agriculture, and Livestock; 3) local community representatives including agro-pastoralists, pastoralists, and women’s leaders as well as community institutions such as Water Resource Users Associations, Community Forest Associations, and Rangeland Users Associations; and 4) other project beneficiaries and partners from civil society and private sector firms working in the counties, e.g. Northern Rangelands Trust, Efforts of the Poor in Development, Kenya,, Waso Gums and Resins Farmer's Society Ltd, and ICRAF. The list of participants of the various stakeholder consultative workshops is presented the Stakeholder Consultation Report (Annex 9).

E.6. Efficiency and Effectiveness

Economic and, if appropriate, financial soundness of the project/programme

E.6.1. Cost-effectiveness and efficiency

Private investment is highly constrained in the ASALs of Kenya and the project will establish enabling conditions to attract growing levels of private investment. ASALs are a neglected area nationally and this has led to limitations to the potential for returns on commercial investments. Yet vulnerability in the ASALs is exceptionally high and communities will be particularly impacted by climate change.

The share of GDP from the ASALs could be high and investment in resilience in these area has the potential to give good returns to Kenya’s economy. The alternative scenario will be continued, and growing, costs to Kenya economy as a result of climate change-induced drought. Drought events cost Kenya through reduction in growth and through the cost of reconstruction, with most of the losses related to dips in the ASAL livestock sector. This sector contributes up to 13% of GDP, but in the ASAL counties it is the dominant sector and the mainstay of the majority of livelihoods.

The potential for upscaling this project is high and the target landscapes were identified based on the potential for upscaling to other areas. The project will strengthen information on climate change nationally, which will benefit all ASAL counties and provide a platform upon which similar investments can further advance ecosystem based adaptation in other ASAL regions. The work is easily scalable because the project will work within established national structures, following priority national policies. Furthermore, the project will come at a time when ASAL counties are looking for ways to capitalize on devolution, and it will provide critically needed resources at a highly strategic period in history.

The proposed grant from the GCF will help promote transformative change while enhancing private and public investment. As structured, the grant will target activities that tend to have pay-offs that fully accrue only in the long-run or which are of a ‘public good’ nature, and which therefore cannot be addressed by the private sector. The combination of GCF grant financing and stakeholder involvement has been designed to stimulate systemic change that can be rapidly scaled-up.

The costs of the activities identified are determined in a way to cover the minimum cost possible to achieve project objectives. Activities are related to cover the additional cost of responding to climate change threats in these counties. Thus, the project is intrinsically efficient and cost-effective. Activities to be undertaken by the project specifically address the climate change adaptation needs of stakeholders, who are mainly agro-pastoralists. The Outputs involve creating awareness and capacity building as well as actual implementation of activities on the ground. Thus, they are expected to have positive effects on long-term investments to be made by the stakeholders.

A critical aspect of cost effectiveness is the emphasis on community-based rangelands management, which is a low cost approach with minimal material intervention, and a strong focus on creating a legacy of capacity for communal resource management and collective action. The key to success in Kenya’s ASALs is to unlock the adaptation potential of local communities by establishing conditions that enable them to deploy their knowledge and skills more effectively.

More costly measures, such as mechanized approaches to land restoration, are impractical on the scale required in these areas.

E.6.2. Co-financing, leveraging and mobilized long-term investments (mitigation only)

E.6.3. Financial viability

Without this grant from GCF, it is unlikely that the ASALs of Kenya will become resilient to climate change in the foreseeable future. The current development pathway, based on weak governance of rangeland landscapes, is likely to see further conversion of land for other uses, leaving pastoral populations increasingly vulnerable to the effects of climate change. This will jeopardize future sustainable development in the ASALs and will reduce economic growth in Kenya. Calculating economic rates of return is challenging due to the economic uncertainty and increasing regularity of drought events and the fund will be crucial for creating greater economic certainty in future.

The main emphasis of this project is to contribute to Kenya's national goal of ending drought emergencies. The project will contribute to (i) reducing the cost of drought on Kenya's national economy and (ii) increasing incomes through value chain investments in the agricultural and natural resources sectors.

Economic losses due to climate change in Kenya are currently estimated at 1% - 3% of GDP (Watkiss, Downing, & Dyszynski, 2010) (SEI, 2009). The PDNA report 2012 estimated the economic growth gap as a result of the 2008 – 2011 drought at 2.8% per annum with the agricultural sector being among the most affected (Government of Kenya, 2012). Based on these estimates, the economic and financial analysis in the feasibility study estimates that, in the business as usual scenario (i.e. absence of GCF) the expected economic losses due to droughts over the next 14 years in the target landscapes will be US\$ 578 million.

To assess the future scenarios resulting from the project implementation the analysis relied on the documented evidence of similar interventions. Venton (2018) is assessing the economics of resilience building in Kenya, found out when the costs of investing in early response and resilience are offset against the benefits (avoided humanitarian aid and avoided income and livestock losses), the benefits exceed the costs by \$2.8 for every \$1 spent.

The study also estimated the total costs of droughts experienced in Turkana and Northeast Livelihood zones in the 'late humanitarian response' scenario at US\$ 71 million per year (i.e. US\$1,068 million over 15 years). A resilience building scenario that results in an increase in income of US\$450 per household could help save of US\$1.3 billion, or an average of US\$84 million per year in terms of avoided 'drought related losses' and 'costs of humanitarian response'. An increase of income of USD\$450 per household would thus help eliminate all the losses and even generate surplus benefits.

The study thus concluded that interventions that build people's resilience through an increase in household income of US\$450 per household per year is more cost effective than meeting household needs in a crisis. Investing in drought resilience saves money and should be the priority in the ASALs of Kenya. Venton's (2018) findings can be relied upon to model the expected impacts with regards to avoided drought related losses. However the analysis adopts a very conservative position and assesses three scenarios to ensure robustness i.e. realistic, pessimistic and optimistic scenarios. A 10% reduction of the economic losses is adopted as the realistic position of the impact expected from the project – representing a conservative estimate.

Table 5: Economic analysis results – realistic scenario

	14 years, 12% discount rate	5 years 12% discount rate
NPV (USD)	11,809,623	3,255,214
IRR	31.15%	20.98%
Discounted payback period	4.59	4.59
AEV (USD)	1,781,732	903,028
Benefits/Costs Ratio	1.38	1.12

An analysis of the project shows that it will deliver a high net present value (NPV) of USD\$ 0.83 million (12% discount rate; 5 years), demonstrating the project is economically viable and will lead to large economic, social and environmental benefits in Kenya. Sensitivity analysis using a 10% and 14.5% discount rates also shows an overall positive net present value for the project. The analysis did not undertake Financial Analysis of individual interventions neither did it assess mitigation benefits.

Additional benefits are expected from the project that have not yet been evaluated, but which will be evaluated under the vulnerability analysis and monitoring activities (Component 1). These include social benefits associated with improved governance and peace, and environmental benefits including climate change mitigation benefits that could not be realistically estimated at this stage.

E.6.4. Application of best practices

The project will include best practices across several domains and includes the following:

- **Sub-Catchment Management Plans (SCMP):** SCMP are the community-level land use planning process legally mandated by the Water Resources Authority. SCMP for ASALS is the versions developed jointly by WRA and IUCN for drylands that specific integrates different sectors including water, rangelands, forests and agriculture. Outputs include community bylaws for landscape management. Through the project these SCMP will be developed with clear understanding of climate change impacts.
- **Community based rangeland management:** IUCN has pioneered community-based approaches to securing and restoring rangelands in Kenya's ASALS, including in Garissa and Isiolo counties. This approach will be incorporated in the sub-catchment management planning approach above. Community management plans for the rangelands will be informed by analysis of climate change impacts.
- **Drought sensitive water resource management:** IUCN has developed approaches for community-validation of water infrastructure development, ensuring that yields are commensurate with available pasture resources in order to minimize the risk of over grazing, and to minimize conflict over natural resources. This includes small scale infrastructure, such as sub surface dams, as well as improved institutional arrangements to control the seasonal use and closure of critical water infrastructure. As with the previous tools, this approach will build on climate change impact information generated through the project.
- **Drought Early Warning:** The Arid Lands Resource Management Project, implemented by the International Development Association (IDA) and the Government of Kenya. It successfully operationalizing drought early warning information and defined drought management structures that led to the institutionalization of the National Drought Management Authority.
- **SHARED (Stakeholder Approach to Evidence-based and Risk-informed Decision-making):** decision support tool to facilitate decision making in complex systems.
- **Resilience Radio.** Using interactive rural radio programs Farm Radio International has reached large audiences and in partnership with IUCN increased uptake of restoration activities in Uganda and Malawi. An evaluation found that 98% of people who listened to most or all of the broadcasts carried out one of the practices.
- **Value chains.** Scaling up work undertaken by the ILRI Feed the Future program. These models include the Kenya Value Chain Finance Centre on strengthening and climate-proofing livestock value chains; and the MAMASE project, Mara Beef and NRT experiences on livestock husbandry, value addition, branding and marketing.
- **Community Resilience Facility (CRF):** The CRF that builds on the successful VSLA model matches a community-owned land use plan with community-owned solidarity funds. This is based on 5 years' experience in Uganda and in Kenya a Sharia compliant version has been developed.
- **County Climate Change Funds:** The counties are increasingly developing climate changes laws, institutions and funding mechanisms. Makueni allocates 1% of its revenue and Wajir County 2%; other counties are following suit. This is based on work under the Adaptation Consortium including NDMA, IIED, and others.

E.6.5. Key efficiency and effectiveness indicators

GCF core indicators	Estimated cost per t CO ₂ eq, defined as total investment cost / expected lifetime emission reductions (mitigation only)
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	<p>(a) Total project financing (b) Requested GCF amount (c) Expected lifetime emission reductions overtime (d) Estimated cost per tCO₂eq (d = a / c) (e) Estimated GCF cost per tCO₂eq removed (e = b / c)</p> <p><i>Describe the detailed methodology used for calculating the indicators (d) and (e) above.</i></p> <p><i>TBD</i></p> <p><i>Please describe how the indicator values compare to the appropriate benchmarks established in a comparable context.</i></p> <p><i>TBD</i></p>
	<p>Expected volume of finance to be leveraged by the proposed project/programme and as a result of the Fund's financing, disaggregated by public and private sources (mitigation only)</p> <p>NA</p> <p><i>Describe the detailed methodology used for calculating the indicators above. NA</i></p> <p><i>Please describe how the indicator values compare to the appropriate benchmarks established in a comparable context. NA</i></p>
<p>Other relevant indicators (e.g. estimated cost per co-benefit generated as a result of the project/programme)</p>	

*** The information can be drawn from the project/programme appraisal document.**

F.1. Economic and Financial Analysis

The detailed economic analysis and assumptions are presented in Annex 3.

As noted in section E.6.3 an economic analysis was conducted for the proposed project. Best practices in appraisal for public sector projects have been followed. The Economic Analysis - Annex 3 shows the conclusions of the economic analysis, together with related assumptions and information.

Economic net present value (ENPV) is calculated using a 12% discount rate. The ENPV at a 12% discount rate at 14 years for the project is USD 11,809,623 and the corresponding economic internal rate of return (EIRR) is 31.15%. At 12% discount rate for 5 years, the project ENPV is USD 3,255,214 and the EIRR is 20.98%. In both project lives, the project is economically viable. However the project's viability is even higher under the 14 years project life as is expected with climate change adaptation projects whose impacts are more medium to long-term in nature. Tests of sensitivity of the ENPV and EIRR show the following:

Table 6: Summary of economic net present value (ENPV) and economic internal rate of return (EIRR) for the project, at 12% discount rate and two sensitivity cases

(in USD. Figures are rounded)

Discount rate	ENPV (14 years)	EIRR (14 years)	ENPV (5 years)	EIRR (5 years)
Discount rate – 12% (base case)	11,809,623	31.15%	3,255,214	20.98%
Discount rate – 10%	14,350,595		4,237,843	
Discount rate – 14.5%	9,165,194		2,176,283	

The sensitivity analysis shows that the economic viability is less sensitive to the discount rates generally accepted for appraising public projects as all the ENPVs remain positive.

The net benefits of the project are considered underestimates, however, for the reasons explained in Annex 3. These include:

1. The period considered for the economic analysis is 14 years. Several of the projects interventions are expected to bring benefits beyond the 14 years of the analysis implying that the net benefits are not fully considered. These include some water harvesting infrastructure, community incentive mechanisms etc.
2. There are some benefits not captured in the economic analysis, including the economic value of different ecosystem services provided by the restored ecosystems. Examples of such services include increased groundwater recharge, reduced soil degradation and mitigation of floods on lower catchments. GHG emissions reduction from restoration of pasture or Climate-Smart Agriculture practices also are not included as benefits.

The project cannot be accomplished without the Fund's support. Project partners are contributing co-finance for the implementation of the proposed project, it represents a fraction of the resources required for implementation.

The proposed project is expected to have a high impact when the all activities are implemented together in the project areas. Taking these points into account, and noting that Kenya is a low middle income country with limited resources to devote to climate change adaptation, the concessionality that the GCF provides is justified.

F.2. Technical Evaluation

The approaches outlined in this proposal are recognized by IUCN as “Nature Based Solutions” (NBS): actions to protect, sustainably manage, and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.

NBS approaches are the most appropriate for ASAL counties for four reasons:

1. **Reach:** the project can include and empower a large number of stakeholders to directly engage with adaptive decisions and interventions as it works with the land and natural resource base;
2. **Scalability:** these are the types of interventions that have the best chance of going to scale quickly given the local context, and particularly Kenya’s stage in the devolution process;
3. **Cost effectiveness and time responsiveness:** the actions can be deployed immediately and at reasonable cost;
4. **Complementarity:** they are no-regret options and can provide a solid foundation for other types of interventions (not provisioned for in the project) such as livestock insurance, as they become viable options.

Rangeland restoration, particularly based on improved rangeland management practices to allow natural regeneration, are low cost approaches that are suited to having an impact on a large scale, as demanded in the ASALs. Natural and assisted natural regeneration approaches are well understood at the community level and can be directly delivered through strengthening of local governance. By empowering local level governance (through by-laws, laws, recognition of local institutions) and financially incentivizing governance through community solidarity mechanisms and increased functionality of restoration-based value chains a virtuous feed-back is established. Stronger local governance in turn provides multiple benefits beyond restoration, including improvements in security and conflict management and improved decision making for collective action.

F.3. Environmental, Social Assessment, including Gender Considerations

This project has completed the screening procedures of IUCN Environmental and Social Management System (ESMS). The ESMS and its procedures, Standards and tools have been reviewed by GCF accreditation panel and validated as being compliant with GCF requirements for analyzing low and medium risk projects.

The project aims to improve resilience of communities and ecosystems in Arid and Semi-Arid Lands (ASALs) in Kenya to future climate shocks and stresses and is expected to have environmental and social impacts that are overall highly positive. It is considered as highly unlikely that the activities carried out under this project will have any significant adverse environmental and/or social risks and/or impacts that are divers, irreversible, or unprecedented (hence no high risk). However, physical interventions, planned under component 2 and 3, must be carefully planned and monitored to mitigate potential social or environmental impacts.

The project emphasizes low-risk interventions and favors community approaches in order to mitigate the risks associated with natural resource management and governance. While most of the activities are not expected to involve any social or environmental risks, some might imply mild adverse environmental and/or social risks and/or impacts, though they would be expected few in number, generally be site-specific, largely reversible, and readily addressed through mitigation measures. Hence the ESMS Screening report classified the project as moderate risk project (category B, see attached ESMS Screening Report).

Component 1 is not expected to cause negative impacts that are more than **minimal** as it aims at improving decision making by strengthening diagnosis and integrated landscape planning at the county level, providing climate data, strengthening drought early warning systems, and enhancing landscape governance and participatory monitoring. The main focus of risk management is in strengthening community institutions and enabling them to participate effectively in landscape planning, which includes negotiation between different rights holders in the same landscape. The project includes resources for training in conflict management and facilitation of conflict resolution in landscape dialogues.

Component 2 aims to promote ecosystem-based adaptation and includes concrete measure for rehabilitation and restoration of degraded river banks, wetlands, forests, degraded rangelands and agro pastoral systems and provides water management structure such as sand dams, shallow wells rock catchments and spring protection. Potential risks to the extent known at this stage, are listed in Section G below. Because these interventions and infrastructures are small in scale and implemented using good management practices and effective participation in planning these

actions in order to mitigate localized disputes, risks are overall not expected to be significant. In line with the participatory character of the project the specific on-the-ground interventions and sites for the individual interventions will be defined only during project implementation. Accordingly, an Environmental and Social Management Framework (ESMF) has been prepared and will be publicly disclosed (in country at publicly accessible locations and on IUCN website) prior to project approval.

Component 3 involves the development of sustainable value chains (e.g. livestock-based, gums, resins and other products), the promotion of conservation enterprises specialized on grass seeds and fodder reserves and community-based conservation initiatives to improve livelihoods. As part of the latter, the project will support the establishment of two distinct mechanisms; 1) autonomous and community-owned and run 'Community Resilience Facilities (CRF's)' in communities in the 2 landscapes, and 2) grants to cooperatives and community-based enterprises actors to unlock barriers in specific value chains based on CI's model. 1. The CRF's will enable each community to establish an autonomously managed revolving fund that provides an incentive to implement the restoration land-use plans that each community develops and owns. A grant from GCF to village communities in the landscapes will be used for each community to establish this revolving fund. That includes the training and set-up of the fund and the small-scale capitalization. The condition of the community internal lending is that households support, and where appropriate invest in, activities that support restoration. The loan sizes are small (typically \$10-30) and households can use them in a self-determined way, including but not necessarily in support of, the restoration value chain activities they are engaged in. Being a revolving fund, all members of the community will benefit and this community owned asset will grow and mature as a resilience-building mechanism. It is the most equitable and efficient use of limited grant funds. 2. The grants to value chain actors based on the CI model will be much larger grants in the range of \$10,000 - 250,000 into specific value chains with a view to overcoming barriers that are currently impeding the operation of the value chain and larger and more consistent investment.

Environmental and/or social risks of supporting these two mechanisms are considered minor given the small scale of the activities. However, because the individual investments and the concrete value chain activities to be supported by the project are not known at this stage, the ESMF includes operational procedures for assessing environmental and social risks of these small investments and the value chain activities. These procedures will ensure compliance with IUCN's ESMS safeguard provisions.

ESMS Grievance Mechanism

The implementation of the provisions of IUCN's [ESMS Grievance Mechanism](#) will provide an additional safety net for ensuring that people will not suffer from any unforeseen negative social or environmental impacts.

Gender considerations

The Gender Analysis undertaken for this proposal noted existing gender gaps, inequalities and challenges, and proposed corresponding gender-responsive actions to enhance project outcomes with a gender perspective. With an understanding that women, men and youth are affected by climate change and development activities differently, the gender analysis was carried out using the Harvard Gender Analysis Framework and Rani Parker's Gender Analysis Matrix. Through these two tools, the typical daily activities of women, men, girls and boys were investigated, as well as the gender-based power relations and interests, based on access and control to resources. The gender analysis will be further complemented through the vulnerability assessments carried out at community level.

Herd management comprises up to 70% of men's work time, while women have simultaneous and competing demands for productive (market) and reproductive (household) labor time. Men typically control access to most productive assets in the project area, while women use or maintain the same assets, hence the need to include both men and women in decision making on dryland restoration and management. When developing land-use plans and designing the actual ecosystem restoration measures together with the communities, the project will ensure appropriate participation of women in the meetings. Where needed, women will be empowered to ensure that decision-making is not dominated by specific gender groups. In designing the restoration measures the project will be sensitive to the traditional divisions of labor to ensure that plans and measures are socially acceptable but will also not unwittingly or increase the time burden of women, men and youth, or unintentionally exacerbate other inequalities. Given increased vulnerability and lack of access to key resources female-headed households will be specifically targeted by project benefits (e.g. through training, in decisions about water infrastructure, through incentives related to livelihood alternatives).

Access to technical assistance, to markets and to finance is also a key constraint in improving women's economic productivity, which will be addressed when designing the Community Resilience Facilities and value chain activities under Component 3.

The project ensured that there was representation of women and youth organizations in the county consultations. The project has indicators that disaggregate the benefits that women are expected to receive e.g. in terms of participation in decision making access to resources and other elements.

F.4. Financial Management and Procurement

1. The financial management of this project will be guided by IUCN's internal financial rules and regulations which are part of the IUCN Finance Manual. In situations where the government rules give clear cost advantages, they will take precedence over the IUCN rules. To ensure that project funds are used effectively and efficiently in accordance with the approved budget, monthly review of project expenditures will be conducted. The project will apply IUCN financial reporting template that caters to provide information of "actual versus budget" data for desired period of reporting. The report can also group and present expenses/transactions pertaining to the activities described in project budget.
2. The procurement aspects of this project will be guided by IUCN's, 'Policy and Procedure on Procurement of Goods and Services' (<https://www.iucn.org/procurement>), that is a standard professional procurement policy and elaborate standard procedures which ensure that IUCN obtains value for money in all its procurement activities and that procurement is conducted in an efficient and cost effective manner that respects sustainability, the environment and ethical principles. For the grant recipients, the specific sub-policy titled, 'Procurement Policy and Procedure for Grant Recipients' will be applied, which is a specific set of procedures for grant recipients.
3. There will be comprehensive due diligence assessment undertaken of every short-listed grant recipient using the relevant guidelines. This will ensure that the grantees have the required organizational and administrative capacity to implement grant projects, and at the same time will act as a capacity-building measure for the grantees.
4. The project will be audited in accordance with the International Standards on Auditing (ISA). This project will form part of the annual statutory audit undertaken by IUCN's corporate auditor, Price Waterhouse Coopers. In terms of the project specific audit, IUCN will appoint the auditors and the audit will be scheduled around end of the project and conducted in line with ISA. To supplement these audits, periodic financial reviews will be conducted as part of regular monitoring.

G.1. Risk Assessment Summary

The project was designed considering the potential social and environmental risks as well as financial and operational risks.

The results of the ESMS screening on social and environmental risks and the rationale for classifying the project as a moderate risk project concerning environmental and social issues (Category B) have been described under section F 3. Risks related to component 2 and 3 are expected to be controlled and managed through the implementation of the Environmental and Social Management Framework (ESMF). As described in F3, activities and sites under components 2 and 3 are not known in detail yet as they will be designed together with the respective communities and stakeholders during project implementation. Considering the proposed generic types of restoration and rehabilitation measures, activities related to water infrastructure and value chain and enterprise development measures, the following types of risks might be expected:

Social Risks:

- Lack of access to alternative grazing resources for communities may arise. This might be a result of the implementation of community restoration plans, land-use plans and grazing management guidelines that may involve seasonal restriction of access to range and pastureland.
- Increased competition over natural resource use, especially water and pasture. Resource competition is an existing risk in the target landscapes and could be exacerbated as economic opportunities increase (e.g. through the promotion of value chains) or as communities take steps to strengthen their rights and claims over specific resources. Improvements in water infrastructure (water harvesting structures, boreholes and wells) may also act as starting points for resource-related conflicts as it might trigger disputes over their location or might lead to the perception of unfair treatment.
- Incompatibility with cultural practices of the local communities in the project sites when implementing restoration activities. There is therefore a need to work closely with the communities in designing and setting up the ecosystem restoration measures and water management infrastructure to ensure compatibility with cultural practices of indigenous peoples and marginalized groups, including pastoralists and hunter-gatherer groups.
- Potential for operational health and safety considerations due to the location of the project.
- Domination by older men in community dialogue and decision making. Decision-making in cultural institutions is traditionally dominated by older males, with women and youth partially excluded from the process. These institutions are now adapting to the new constitutional mandate of gender equity. The project will adopt a participatory approach and promote inclusive mechanisms to hear the voices of women and youth.

Environmental Risks:

- Developing or rehabilitating water points or harvesting structures in drylands, if not well planned and implemented, can lead to localized impacts on biodiversity during construction phase or to disturbances caused by an influx of communities and livestock to newly established water points. There is also a risk of lowering the water table due to over-abstraction of water resources from constructed boreholes and wells.
- Accidental spread of invasive species when implementing ecosystem restoration measures.
- Measures for controlling invasive species as part of ecosystem restoration may require the targeted application of herbicide or other pest management techniques – hence the need to develop an herbicide management plan should stakeholders decide to control the spread of invasive alien plants.
- Providing value chain support and developing markets for products harvested from natural habitats could lead to over-harvesting. This is particular relevant for the harvest of gums and resins which frequently causes over-harvesting and drying up of trees in Kenya. The risk might be significant in particular for communities where the project does not influence harvest rates but who still benefit from enhanced market access.

G.2. Risk Factors and Mitigation Measures

Selected Risk Factor 1

Description	Risk category	Level of impact	Probability of risk occurring
Lack of alternative grazing resources for communities may arise as a result of the implementation of community restoration plans, land-use plans and	Social and environmental	Low (<5% of project value)	Low

grazing management guidelines that may lead to seasonal restricted access to range and pastureland.			
Mitigation Measure(s)			
<p>The project's approach to ensure active participation of the communities in the development of the land-use plans and grazing guidelines will be vital to prevent social impacts. The vulnerability assessments undertaken in each village/community will provide appropriate social baseline and understanding of vulnerabilities. The ESMF includes provisions for ensuring that any land-use decisions and in particular decisions about potential use restrictions of certain areas, are completely voluntary and with an appropriate degree of participation of potentially affected stakeholders. The participatory approach to be used in community planning brings together all the relevant stakeholders from the local communities, including women and the youth in the planning and decision making process.</p> <p>However, residual risks relate to the uncertainty whether rehabilitation or restoration of ecosystems will provide sufficient and timely benefits to mitigate use restrictions. The rehabilitation/ restoration measures will be prioritized and strategically chosen (e.g. the most degraded and least productive areas) to ensure maximum benefits within the project time cycle (restoration of grasses brings very quick benefits). Second, there is a low risk that there might be vulnerable and disadvantaged groups in the communities who may not be able to cope with seasonal restrictions. If this risk is verified in a certain community, measures will be identified together with the affected groups to mitigate social impacts from restrictions such as providing subsistence allowance to support them through a period of access restriction or by prioritizing them in the project's to livelihood support activities. The measures will be funded through reserves set aside in the Community Resilience Facility.</p> <p>The above mitigation measures are expected to further lower the probability of the risk.</p>			
Selected Risk Factor 2			
Description	Risk category	Level of impact	Probability of risk occurring
Increased competition over resource use especially water and pasture. Resource competition is an existing risk in the target landscapes and could be exacerbated as economic opportunities increase (e.g. through the promotion of value chains). Improvements in water infrastructure and the provision of other project benefits may also act as starting points for conflicts.	Social and environmental	Low (<5% of project value)	Medium
Mitigation Measure(s)			
<p>The project has been and will continue to be designed via participatory community consultations, and implemented largely by community organizations and pastoralist user groups. These groups will identify which water retention or management structures to improve or build, and their locations – not outside partners. Activities for value chain development and other benefits provided by the project will be defined with involvement of relevant groups applying transparent processes and fair criteria. The ESMF provides further guidance. IUCN's experience in managing negotiated and mutually acceptable outcomes is vital to mitigate this risk. These mitigation measures are expected to reduce the probability of the risk occurring to 'low'.</p>			
Selected Risk Factor 3			
Description	Risk category	Level of impact	Probability of risk occurring
Conflict with cultural practices of the local communities in the project sites when implementing restoration activities.	Social and environmental	Low (<5% of project value)	Low

Mitigation Measure(s)			
<p>This risk will be mitigated through the use of participatory approaches in planning and implementing activities at the local level. This approach incorporates extensive and inclusive consultation of different stakeholders including indigenous peoples and marginalized groups and their participation in the designing of interventions and plans relevant to their livelihoods as well as through actions that strengthen their participation and rights in natural resources management. The ESMF entails elements of an Indigenous Peoples Process Framework and specifies how provisions from the Indigenous Peoples Standard are addressed. As such it provides a detailed account of the participatory process related to the various components and activities of the project including the specification of the types of analysis on potential social, cultural or economic impacts required (incorporated in the vulnerability assessments) and when FPIC from respective groups will need to be obtained. These measures are expected to further reduce the low probability of the risk.</p>			
Selected Risk Factor 4			
Description	Risk category	Level of impact	Probability of risk occurring
Potential for operational health and safety risks due to the location of the project.	Social and environmental	Medium (5.1-20% of project value)	Low
Mitigation Measure(s)			
<p>The risk is managed by IUCN security protocols and monitoring of government and NGO intelligence. An operational health and safety handbook will provide preventive and protective measures and emergency prevention and preparedness and response arrangements to address risks to community workers, contracted workers and project staff. These measures are expected to further reduce the low probability of the risk.</p>			
Selected Risk Factor 5			
Description	Risk category	Level of impact	Probability of risk occurring
Domination by older men in community dialogue and decision making. Decision-making in cultural institutions is traditionally dominated by older males, with women and youth partially excluded from the process.	Social and environmental	Low (<5% of project value)	Medium
Mitigation Measure(s)			
<p>Kenyan institutions are now adapting to the new constitutional mandate of gender equity. The project will include intensive sensitization towards the need to include women in decision making in land-use planning and practice gender equity in decisions making processes influenced by the project. These measures are expected to lower the probability of the risk occurring to 'low'.</p>			
Selected Risk Factor 6			
Description	Risk category	Level of impact	Probability of risk occurring
Increased degradation as a result of developing and rehabilitating water harvesting structures and water points. This could be caused by inappropriate location of water infrastructure and influx of communities and livestock to newly established water points. The	Social and environmental	Low (<5% of project value)	Low

installation of boreholes and wells could lead to over-abstraction and to a lowering of the water table.			
Mitigation Measure(s)			
The risk during construction phase will be addressed through careful planning of infrastructure works, incorporating strong technical guidance, appropriate planning of infrastructure within wider landscape management plans, and ensuring extensive community consultation. Further mitigation measures include ensuring regular maintenance and monitoring of water abstraction. Detailed guidance is provided in the ESMF. These measures are expected to further reduce the low probability of the risk.			
Selected Risk Factor 7			
Description	Risk category	Level of impact	Probability of risk occurring
Increase in the spread of invasive species when implementing ecosystem restoration measures.	Social and environmental	Low (<5% of project value)	Low
Mitigation Measure(s)			
This risk is managed by the use of a protocol with clear guidelines regarding the selection of tree species included in the ESMF. For the grass establishment the project will conduct a risk assessment following IUCN guidelines for reintroduction and translocation of species. These mitigation measures are expected to further reduce the low probability of the risk.			
Selected Risk Factor 8			
Description	Risk category	Level of impact	Probability of risk occurring
Providing value chain support and developing markets for products harvested from natural habitats could lead to over-harvesting. This is particular relevant for the harvest of gums and resins which frequently causes over-harvesting and drying up of tree in Kenya. The risk might be significant in particular for communities where the project does not influence harvest rates but who still benefit from enhanced market access.	Social and environmental	Low (<5% of project value)	Medium
Mitigation Measure(s)			
The project will support communities in determining thresholds for harvest rates for natural resources extracted from natural habitats – specified in the community land use plans. These plans will also include requirements for monitoring actual extractions. The project will further work with authorities and relevant stakeholders outside the project sites and raise awareness about the need to establish and monitor harvesting rates. These measures are expected to lower the probability of the risk occurring to 'low'.			
Selected Risk Factor 9			
Description	Risk category	Level of impact	Probability of risk occurring
Natural disaster events such as prolonged droughts or higher frequency of drought as well as torrential rainfalls destroy or delay project interventions.	Technical and operational	Low (<5% of project value)	High

Mitigation Measure(s)
<p>The project is designed to operate within the context of recurrent drought and it is likely that drought will occur during the project period. The occurrence of drought will inevitably have consequences for project delivery, but will also strengthen support for the role of the project in mitigating such risks in the long term. Enhanced information and early warning systems will strengthen drought management while restoration of natural resources in drought reserve will reinforce adaptive capacity and demonstrate the value of the project. Additional livelihood activities will also reinforce adaptive capacities and resilience.</p> <p>The main risk that has to be managed is of relief agencies implementing actions that undermine adaptive capacity and degrade resources, for example through inappropriate siting of water points. The project will develop planning tools that are explicitly designed to mitigate this recurrent risk.</p>

Selected Risk Factor 10			
Description	Risk category	Level of impact	Probability of risk occurring
Government/ donors/ private sector invest in irrigation schemes which are technically not appropriate for dryland system and affect sustainability and effectiveness of project interventions	Technical and operational	Low (<5% of project value)	Medium
Mitigation Measure(s)			
<p>There is a medium probability that some investments in irrigation will be made in the target landscapes, although the overall scale of such investments is likely to be low. The project does not stand in complete opposition to irrigation, but will provide technical guidance to ensure that, if irrigation is developed, it is guided to reduce the wider consequences within the landscape in a context of increasing drought and scarcity of water resources. The project supports policy dialogue with relevant authorities at national and county level about managing the negative externalities changing land use and water management practices, and will establish mechanisms for improved planning of natural resources to offset the risk of negative externalities.</p>			

Selected Risk Factor 11			
Description	Risk category	Level of impact	Probability of risk occurring
Infrastructure development or economic activities such as mining activities, concessions, and claims might affect the effectiveness of the restoration measures	Technical and operational	Low (<5% of project value)	Medium
Mitigation Measure(s)			
<p>Although no major mining or infrastructure investments are foreseen in the target landscapes, they cannot be ruled out in the long term. The project will establish landscape management mechanisms which are designed to manage competing land uses and claims. These mechanisms provide the means through which future land use changes can be coordinated and managed, particularly with regard to seasonal grazing access. Those mechanisms deliberately operate at the County level, since the Counties are the main decision maker over land reallocations. These measures are expected to lower the probability of the risk occurring to 'low'.</p>			

Other Potential Risks in the Horizon
TBD during project inception phase

H.1. Logic Framework.

Please specify the logic framework in accordance with the GCF's [Performance Measurement Framework](#) under the [Results Management Framework](#).

H.1.1. Paradigm Shift Objectives and Impacts at the Fund level ¹⁹						
Paradigm shift objectives						
<i>Increased climate-resilient sustainable development</i>	Reduce the cost of climate change induced drought on Kenya's national economy by increasing resilience of the livestock and other land use sectors in restored and effectively governed rangeland ecosystems					
Expected Result	Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions
				Mid-term (if applicable)	Final	
Fund-level impacts						
<i>A4.0 Improved resilience of ecosystems and ecosystem services</i>	4.1: Coverage/scale of ecosystems protected/rehabilitated in response to climate variability and change	Landscape 'dashboard' Participatory rangeland assessment combined with remote sensing	0	200,000 ha	500,000 ha	Rangelands are facing degradation processes but restoration processes can be activated during the program cycle Socially and ecologically acceptable approaches to rangelands management and restoration can be identified and approved for scale up
<i>A1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions</i>	1.2 Number of males and females benefiting from the adoption of diversified, climate resilient livelihood options (including fisheries, agriculture, tourism, etc.)	KAP survey Participatory narrative inquiry survey results	0%	50,000 people of which 40% are female and youth	155,000 people of which 50% are female and youth (Total number of males and	Government maintains a strong commitment to devolution, security and drought management in the ASALs

¹⁹ Information on the Fund's expected results and indicators can be found in its Performance Measurement Frameworks available at the following link (Please note that [some indicators are under refinement](#)): http://www.gcfund.org/fileadmin/00_customer/documents/Operations/5.3_Initial_PMF.pdf

					females is approximately 25% of the total landscape population)	
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H.1.2. Outcomes, Outputs, Activities and Inputs at Project/Program level

Expected Result	Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions
				Mid-term (if applicable)	Final	
Project/program outcomes	Outcomes that contribute to Fund-level impacts					
A5.0 Strengthened institutional and regulatory systems for climate-responsive planning and development	5.1 Degree (%) of integration/mainstreaming of climate change in national, sub national and sector planning and coordination in information sharing and project implementation.	Landscape dashboard Climate change data engagement, uptake and use scorecard Evaluation of county policies and plans and their implementation	County development and investment plans for rangeland and natural resource management do not integrate climate change projections. Provisions for necessary cross-sectoral and cross-county coordination of landscape management are insufficient.	Landscape management included in 50% of land use related county development, investment plans and bylaws	100% target counties integrate climate change projections in landscape management plans.	National and devolved policy remains favorable to stronger institutional systems for climate responsive planning and development.
7.0 Strengthened adaptive capacity and reduced exposure to climate risks	7.2 Percent population using fund supported tools, instruments, strategies and activities to respond to climate change and variability	Vulnerability assessments carried out at inception and end of project Climate change data engagement, uptake and use scorecard Adoption of climate adaptation planning in	Zero: (climate adaptation tools have been piloted through NGO projects in an ad hoc way – no standardized approaches have been scaled up in partnership with government)	Standardized approaches agreed and implemented in all target landscapes	Standardized approaches used systematically for rangeland planning in all target county governments	Counties champion the standardized approaches and ensure that future actors are willing and able to support the established institutionalized approaches

		participatory exercises and County budgets				
8.0 Strengthened awareness of climate threats and risk-reduction processes	8.1 Percent of target population aware of the potential impacts of climate change and range of possible responses	Reach of radio broadcasts and other media Household assessment	Information on climate change and its implications for rangeland management has not been systematically validated or communicated	20% of population reports increased awareness of climate threats and risk-reduction processes	50% of population reports increased awareness of climate threats and risk-reduction processes	Network providers continue to strengthen the reach of radio broadcasts and mobile telephony through the project area
Project/ program outputs	Outputs that contribute to outcomes					
Output 1: Coordinated transboundary rangeland management decisions are strengthened by enhanced climate change analysis and participatory community and county planning	.1.1 Number of ASAL counties that receive early warning information that is informed by enhanced projections of climate change and its impacts on land and livestock .1.2 Number of community plans developed using gender differentiated and participatory approach for climate-change sensitive landscape planning .1.3 Number of evidence-based climate resilience plans at county level informed by community plans .1.4 Quality and quantity of inter-county decisions aimed at coordination of climate change-adaptive natural resource management and drought preparedness	Early warning system functionality report Landscape plan availability Landscape dashboard Climate change data engagement, uptake and use scorecard Participatory narrative inquiry survey results County budgets Published participatory landscape management plans Reports of participatory processes	1.1. 0 1.2. 3 1.3. 3 1.4. 0	1.1. 23 1.2. 29 (75% of wards) 1.3. 8 1.4. 2 (1 per landscape)	1.1. 23 1.2. 39 (100% or wards) 1.3. 11 1.4. 11 (1 per county)	Landscape level planning and climate action is adopted as a high-level agenda by the county governments and this is reflected in county budgets Multiple inter-county decisions will be required over shared natural resources. However, it is conceivable that multiple arrangements could be captured in a smaller number of agreements (e.g. one or two per landscape, agreed between all relevant counties)

<p>Output 2: Prioritized rangeland resources including water resources, are brought under restoration, safeguarded and sustainably managed for improved climate change resilience</p>	<p>2.1 Area (ha) of rangeland ecosystems under improved communal governance for restoration and protection</p> <p>2.2 # communities implementing “planned grazing” for climate smart pastoralism</p> <p>2.3 # of grass seed banks</p> <p>2.4 # of soil and water conservation works</p> <p>2.5 # rangeland users trained in climate change resilient natural resource management and governance</p> <p>2.6 # county laws enabling community action (bylaws) for climate change resilient natural resource management</p>	<p>Landscape ‘dashboard’ data</p> <p>land use and grazing plan availability</p> <p>DRSRS survey frames</p> <p>County SLM and CSA reports</p> <p>Project Monitoring Reports</p> <p>Departmental Reports</p> <p>Training Reports</p> <p>Consultancy reports</p>	<p>2.1. 0</p> <p>2.2. 0</p> <p>2.3. 0</p> <p>2.4. 0</p> <p>2.5. 0</p> <p>2.6. 0</p>	<p>2.1. 250,000</p> <p>2.2. 20 (50% of wards)</p> <p>2.3. 0</p> <p>2.4. 20</p> <p>2.5. 780 (20 pax times 39 wards)</p> <p>2.6. 0</p>	<p>2.1. 500,000</p> <p>2.2. 29 (75% of wards)</p> <p>2.3. 16</p> <p>2.4. 39</p> <p>2.5. 780</p> <p>2.6. 9</p>	<p>The pursuit of climate adaptation benefits and the need to reduce risks of land degradation will strengthen and influence investment choices by government, communities and private sector</p>
<p>Output 3: Public, private and community investments in natural resources</p>	<p>3.1 # counties with at least one value chain developed for the benefit of rangeland users</p> <p>3.2 # of restoration enterprises created by women’s groups</p> <p>3.3 # investment-ready business plans for climate change resilience in the natural resources sector</p>	<p>-HH survey</p> <p>- Project Reports</p> <p>-County Reports</p> <p>-GARA reports</p> <p>-KEFRI reports</p> <p>-Kenya Export Promotion Council</p> <p>-MTP reports</p> <p>-Ministry of Trade Reports</p> <p>-Training Reports</p>	<p>3.1. 0</p> <p>3.2. 0</p> <p>3.3. 0</p>	<p>3.1. 0</p> <p>3.2. 0</p> <p>3.3. 0</p>	<p>3.1. 11</p> <p>3.2. 16</p> <p>3.3. 16 (40 business plans)</p>	<p>Sufficient restoration related value chain companies exist to take up value chain grants</p>
<p>Activities</p>	<p>Description</p>	<p>Inputs</p>	<p>Description</p>			
<p>1.1 Enhance information systems to inform climate change sensitive</p>	<p>Enhance county data for early warning information and Action</p> <ul style="list-style-type: none"> Updated climate change analysis Gathering and consolidation of key data 	<p>Personnel Professional services Travel and meetings Equipment Other Direct Costs</p>	<p>Consultants to design reporting & communication formats for climate change data for communities and counties</p>			

<p>landscape planning and vulnerability/ risk management</p>	<ul style="list-style-type: none"> • Increased dissemination of drought early warning information <p>Conduct participatory rangeland assessments (implement PRAGA methodology)</p> <ul style="list-style-type: none"> • Consolidate baseline information • Develop spatial analysis using baseline remote sensing data • Participatory landscape classification and indicator development • Field assessment • Data analysis <p>Vulnerability assessments and evaluation of coping strategies</p> <ul style="list-style-type: none"> • Application of established NDMA methodology <p>Establish county dashboards using SHARED</p> <ul style="list-style-type: none"> • Integration of existing data • Collection of data to address key gaps <p>Development of data platform</p> <p>Outreach and communications</p> <ul style="list-style-type: none"> • Website development and maintenance • Radio broadcasts • Other communications, including print media 	<p>External Grants Indirect Costs</p>	<p>Training and capacity building for drought monitoring and analysis</p> <p>Stakeholder training on Eco-DRR e.g.</p> <ul style="list-style-type: none"> • Technical expertise • Funding for consultations • Awareness campaigns • Publication material (print, poster, social media, video, etc.)
<p>1.2 Strengthen community institutions to coordinate community planning and to inform and represent stakeholders in landscape planning</p>	<p>Implement stakeholder engagement and communication</p> <ul style="list-style-type: none"> • Organize community consultations to validate stakeholder analyses • Develop and disseminate communication materials • Public outreach and awareness events <p>Training of trainers in participatory rangeland/catchment planning (develop sub-catchment management plans and rangeland management plans)</p> <ul style="list-style-type: none"> • Publication of training materials • Implementation of training for target stakeholders • Implementation of “training by doing” through implementation of participatory rangeland/catchment plans in all target communities <p>Development community plans in all target wards</p> <ul style="list-style-type: none"> • Prepare maps of target areas • Facilitate community meetings • Validate plans with the whole community (linked with the development of community level by laws) 	<p>Personnel Professional services Travel and meetings Equipment Other Direct Costs Grants Indirect Costs</p>	<p>Mobilizing community members for a thorough and open consultative/participatory process</p> <p>Training of a cadre of County and NGO staff to implement climate smart participatory planning</p> <p>Roll out of participatory planning in 39 target wards</p>
<p>1.3 Develop county rangeland restoration plans that build on local community plans combined with</p>	<p>Training of county staff in use of climate change and other early warning data for rangeland landscape management</p> <ul style="list-style-type: none"> • Development of training materials • Implementation of training 	<p>Personnel Professional services Travel and meetings Equipment Other Direct Costs Grants</p>	<p>Training programs will be developed and implemented and County fora will be convened and a periodic basis to integrated climate change data and</p>

enhanced climate change data	<p>County plans developed for the priority landscapes</p> <ul style="list-style-type: none"> • Convening of County planning fora to consolidate/reconcile data analysis and participatory land use/catchment planning • Landscape level planning at county level using SHARED and early warning data to integrate into County Planning 	Indirect Costs	participatory plans into County planning
1.4 Establish functioning landscape management mechanisms in participating counties for climate change sensitive and accountable decision-making	<p>Establish and support inter-county forums for landscape planning</p> <ul style="list-style-type: none"> • Mobilization of key stakeholders • Inception process • Consensus building meetings between Counties for transboundary landscapes • Facilitation of conflict management dialogue <p>Training of county government staff and community representatives in landscape planning and rangeland ecosystem management</p> <ul style="list-style-type: none"> • Interpretation of climate resilience diagnosis and climate change data – use of the SHARED tool • Management of rangeland ecosystems and restoring ecosystem functionality • Training in coordination and evidence based decision making for climate resilience 	<p>Personnel</p> <p>Professional services</p> <p>Travel and meetings</p> <p>Equipment</p> <p>Other Direct Costs</p> <p>Grants</p> <p>Indirect Costs</p>	<p>Training and facilitation for enhanced leadership and coordination</p> <p>Training and application of SHARED methodology</p> <p>Integrated landscape resource mapping and planning for climate resilience</p> <p>Training and advisory services to integrate evidence based decision making with landscape level planning and to link with county development and land use plans</p>
1.5 Establish participatory monitoring, evaluation and learning systems to support adaptive management	<p>Validate project results framework and indicators</p> <ul style="list-style-type: none"> • Inception meeting • Validate the agreed project oversight mechanisms at all levels <p>Establish monitoring unit</p> <ul style="list-style-type: none"> • Develop and agree on monitoring plan • Provide training for identified M&E leads in project team, including training participatory monitoring <p>Implement monitoring, evaluation and learning plan for the project</p> <ul style="list-style-type: none"> • Annual monitoring of outputs, outcomes and impacts in the Theory of Change • Annual participatory review of participatory rangeland management plans • Mid-term project review • Final project evaluation • Disseminate project outputs and share experiences and enhance learning 	<p>Personnel</p> <p>Professional services</p> <p>Travel and meetings</p> <p>Equipment, including monitoring</p> <p>Other Direct Costs</p> <p>Grants</p> <p>Indirect Costs</p>	<p>Knowledge, attitude and skills will be tracked through participatory narrative inquiry</p> <p>Collect Earth and InVEST tools for biophysical impact.</p> <p>Performance Story Reporting (PSR) will be used for reporting on contribution to higher level outcomes using mixed methods and participatory process.</p> <p>Annual, Mid Term review and End term Evaluations will be carried out</p> <p>The project will use appropriate tools and methods for regular data collection.</p> <p>The project apply the Bonn Challenge Barometer to assess progress towards Kenya's restoration targets.</p>
2.1 Implement priority community-based rangeland	<p>Support community-based actions for natural regeneration of pastures (based on participatory rangeland /catchment plans developed in 1.2)</p>	<p>Personnel</p> <p>Professional services</p> <p>Contract for construction activities</p> <p>Travel and meetings</p>	<p>Community mobilization and training to establish pasture management plans</p>

<p>restoration activities</p>	<ul style="list-style-type: none"> • Training and assistance for pasture and water management and natural regeneration • Establishment of rangeland and land-use plans defining managed grazing regimes and seasonally protected pasture zones • Implementation of fire management protocols • Protection of riparian zones and wetlands <p>Implement actions for assisted natural regeneration based on participatory rangeland/catchment plans</p> <ul style="list-style-type: none"> • Evaluation of regeneration needs based on Activity 1.1 • Provision of specific technical assistance for implementation • Provision of materials • Introduction/protection of locally-adapted high-value pasture and tree species • Bush clearance • Control of Bush encroacher and/or Invasive Alien Species 	<p>Equipment, including monitoring Other Direct Costs External Grants Indirect Costs</p>	<p>Field visits and exchange visits based on thematic focus within the landscapes Development of community management agreements and monitoring plans Contracts for physical actions and supply of inputs Control of bush encroacher species and invasive alien species will primarily be mechanical but some alien species may require the targeted use of herbicides (e.g. Prosopis jubiflora) and an herbicide plan will be developed if this is the case.</p>
<p>2.2 Implement priority actions for integrated land/water management in catchments</p>	<p>Implementation of soil and water conservation actions</p> <ul style="list-style-type: none"> • Scientific and participatory validation of Sustainable Land Management options in relation to improved diagnosis of the drivers of degradation (Output 1) • Construction of appropriate SLM options: e.g. half-moons, check dams, stone bunds, rock catchments, sand dams, spring protection & cattle troughs • Measurement of infiltration/run off, soil moisture • Monitoring ground water to track land-water management dynamics and water availability 	<p>Personnel Professional services Contract for construction activities Travel and meetings Equipment, including monitoring Other Direct Costs External Grants Indirect Costs</p>	<p>Selected and low-impact soil conservation measures and water harvesting infrastructure will be undertaken to support rangeland restoration efforts. All interventions will be guided by the inclusive, participatory planning processes outlined under Component 1 in order to avoid disputes related to land ownership and over selection of sites and respective benefits received from the infrastructure. Physical works will be outsourced to contractors, or to community groups where they have the capacity (dependent on the nature of the action)</p>
<p>2.3 Install community-validated strategic water sources for sustainable rangeland utilization</p>	<p>Restoration and construction of critical water infrastructure</p> <ul style="list-style-type: none"> • Strengthening of existing monitoring networks and monitoring of water resources • De-silting of dams to increase storage • Training on gender-sensitive water harvesting • Construction of small scale water infrastructure including pans and shallow wells • Installation of boreholes with seasonal management plans • Decommissioning/modification of harmful water infrastructure 	<p>Personnel Professional services Contract for construction activities Travel and meetings Equipment, including monitoring and communications Other Direct Costs External Grants Indirect Costs</p>	<p>Water sources will be carefully validated through the participatory planning processes outlined under Component 1 in order to avoid disputes over access to water sources. Training will be provided to resource managers/users and service providers to avoid environmental and health risks as a result of developing water sources (e.g. disease vectors from stagnant water). Water extraction will be monitored to avoid depletion of groundwater resources (e.g. in case of boreholes).</p>

			Physical works will be out-sourced to contractors, or to community groups where they have the capacity (dependent on the nature of the construction)
2.4 Assist communities to formulate bylaws and incorporate into county laws	<p>Develop bylaws/communal management agreements to secure land and resource rights (communal management agreements)</p> <ul style="list-style-type: none"> • Conduct a review of lessons from past experiences (Garba Tula, Garissa) • Document traditional resource management arrangements in local languages • Organize workshops for validation • Publish resource management arrangements • Develop legal options to strengthen customary arrangements, including bylaws, other community level natural resource management agreements, conservancies, and recognition of local institutions <p>Strengthen domestication and implementation of national level policies</p> <ul style="list-style-type: none"> • Conduct review of policies in support of community based rangeland landscape management, including relevant land tenure laws and the Forest Conservation and Management Act. • Organize multistakeholder dialogue to establish county implementation plans for key policies, with focus on enforcement and compliance • Develop/review county laws to support rangeland restoration • Strengthen climate sensitive legislation that support community bylaws and structures at cross county landscapes/county level 	<p>Personnel Professional services Travel and meetings Equipment Other Direct Costs External Grants Indirect Costs</p>	<p>Consultancies to document traditional regulations and develop management laws for each county; review of policies Training to support communities to enforce county laws and bylaws, especially linked to Community Resilience Facility Workshops for monitoring and follow up of implementation of community land-use plans and by-laws; capacity building on by-law formulation; multistakeholder dialogues on policy implementation Facilitation of by-law development with County Government Communication and awareness raising on community by-laws Participatory monitoring and evaluation in implementation progress of legislation and policies related to climate change Support communities to enforce county laws and bylaws Strengthen county and ward level committees on climate change at the priority landscapes.</p>
2.5 Build capacity of local institutions to implement climate-sensitive landscape management	<p>Training of local and customary institutions, including those representing women and youth:</p> <ul style="list-style-type: none"> • Organizational management • Accountability and representation • Influencing public decision-making • Participatory mapping and spatial planning • Community based vulnerability assessment and option analysis • Landscape restoration and sustainable rangeland management • Legal options for communal land tenure <p>Development of long term rangeland extension strategy</p> <ul style="list-style-type: none"> • Consultancy study • Public dialogue 	<p>Personnel professional services Travel and meetings Equipment Other Direct Costs External Grants Indirect Costs</p>	<p>Capacity building will be conducted both by executing partners and by external experts. Training will primarily be carried out in the target counties although the option of organizing specific training in other more suitable locations will be retained Training will contribute towards long term institutionalization of capacity building</p>

<p>3.1 Provide climate resilient investment in priority value chains that have been validated by local communities</p>	<p>Strengthen beef, sheep and goat meat and camel milk value chains</p> <ul style="list-style-type: none"> Update value chain analysis in response to participatory prioritization (Output 1) in each landscape Workshops on value chains analysis to validate analysis and to engage value chain actors to distill the value chain analysis output and assess both the potential further development of the value chains; as well as identify investment opportunities that can catalyse their development Assess capacities of existing cooperatives and other value chain business actors in the landscapes and provide targeted support and training (e.g. on business planning, quality control, value addition, marketing/branding) Strengthen market information systems through cooperatives and other business actors. Trader/producer forums to address challenges within the value chain (such as market access and prices) <p>Support gums and resins value chains</p> <ul style="list-style-type: none"> As above, with additional specific support for processing and transportation Linking to producers and buyers through trade shows and internet presentations Training in quality management and sustainable harvesting of natural products <p>Support for development of equitable value chains and market development</p> <ul style="list-style-type: none"> Focus on the training and development of women and youth is a priority in all of the above action items. This is particularly relevant in the primary value chains of livestock in ASAL counties Assess and implement actions to improve women's engagement with the above value chains. Provision of extension services and marketing material <p>Advancement of grants and loans by CI to the beneficiaries</p> <ul style="list-style-type: none"> CI making investments through provision of grants and loans for eligible activities 	<p>Personnel Professional services Travel and meetings</p>	<p>An analysis of current livestock value chains based on consultations, actor & market analysis will identify an action plan for public and private sector investments to increase livestock values.</p> <p>Key aspects will be addressed including markets, gender roles and capacity.</p> <p>The value chain work will be underpinned by pasture restoration which will secure access to pastures and feed. Support women and youth groups to form cooperatives and access skills and finance to participate in the livestock value chains</p> <p>Gums and resin production provides supplementary income especially for pastoralist women & youth. Value chain actor consultation and assessment will support private sector actors and link producers to international markets.</p> <p>Capacity for collectors to meet market demand and standards. Grants to financially support these value chains overcome specific barriers will be made under Activity 3.4.</p>
<p>3.2 Provide grants to establish restoration enterprises created/led</p>	<p>Promote the establishment of grass seed production and fodder bank enterprises with a particular focus on women groups</p>	<p>Personnel Professional services Travel and meetings Equipment Grants</p>	<p>By establishing community-run grass seed and fodder reserve areas or 'banks' in degraded rangelands, pastoralist's resources are increased and</p>

<p>primarily by women groups</p>	<ul style="list-style-type: none"> • Training women & men in grass seed production • Entrepreneurship training for women and youth • Development of business plan • Allocation of resources (seeds) for start up • Implementation of fodder, pasture and seed lots and stores and marketing activities <p>Workshops for participatory identification and selection of appropriate sites and species for grass seed banks.</p>		<p>entrepreneurs (typically women) are empowered and developed. The project will establish seed and fodder banks that will reduce risk for home herds, as well as for the women entrepreneurs. They will be run by women, who, via training to market their products, will become entrepreneurs. In combination with proper land use/ grazing management, this leads to increased vegetation cover, a positive impact on regional climate: https://www.youtube.com/watch?v=F4Dj630AX3k) and a more climate resilient ecosystem. Grazing lands sequester 200-500kg of carbon/ha/yr, hence mitigating climate change.</p>
<p>3.3 Establish financial incentive mechanisms for sustainable land management</p>	<p>Establish the Community Resilience Facility (CRF) and explore other mechanisms (e.g. Climate Smart Lending Platform) Implementation of the CRF in communities will involve:</p> <ul style="list-style-type: none"> • Dialogue with community members to secure commitment over linking the fund to the community land use plans • Training of community members to understand CRF purpose and operation • Training of CRF fund managers • Establishment of CRFs • Allocation of fund • Monitoring of the fund management and the compliance with the plan <p>Provide technical support for other community level incentive for eco-credit approaches e.g. Climate Smart Lending Platform</p>	<p>Personnel Professional services Travel and meetings Equipment Grants</p>	<p>Establishment of the Community Resilience Facility (CRF) in 2 landscapes. The facility incentivizes community restoration land-use plans by supporting communities to establish their own solidarity revolving fund, based on wide-spread and well known principles. Community members can access the funds contingent on their compliance with the community land-use and restoration plan. The facility becomes a long-term community owned asset for supporting their restoration plans. The disbursement of CRF support household resilience especially for diversified livelihoods for agro-pastoralist communities. Monitoring, evaluation and graduation CRF will be a basis for scaling up. The scaling up will be help households access commercial eco-credit such as is provided by the Climate Smart Lending Platform.</p>
<p>3.4 Provide grants to community-based enterprises for ecosystem based adaptation that could create opportunities for investments in the value chains</p>	<p>Establish mechanism for investments in climate-smart enterprises. Eligible investments might include</p> <ul style="list-style-type: none"> • Physical market infrastructure • Equipment: cooling, processing, packaging • Quality control equipment/ laboratory <p>The grants criteria will include</p> <ul style="list-style-type: none"> • A viable business model • Potential for significant, measurable positive environmental (e.g. river bank 	<p>Personnel Professional services Travel and meetings Grant making mechanism</p>	<p>Training, advice, materials and advice to be provided by executing partners with a grants team following the progress and land management impacts of grant recipients.</p>

	<p>protection, rangeland restoration, adhering to grazing plans, climate smart agriculture) and social impacts (e.g. income generation, health and education)</p> <ul style="list-style-type: none"> • Potential to unlock future follow-on investment at scale • Strong management capacity <p>Grants will be in the size \$10-250k depending on the competitiveness, value add and capacity of the company</p>		
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H.2. Arrangements for Monitoring, Reporting and Evaluation

The activities on monitoring, action learning, evaluation and reporting are part of Component 1 (Activity 1.4). IUCN will lead this activity through the development and implementation of a monitoring, evaluation, reporting and learning (MERL) system. The key elements of the system are outlined here and a full version will be developed in the inception phase.

(a) Project Intervention Logic:

The project intervention logic shows the main project activities and the expected outputs, outcomes and impacts. Activities will contribute to three outputs: (i) communities and county governments develop rangeland landscape management plans using appropriate climate change and landscape analysis and participatory processes; (ii) prioritized rangeland resources, including water resources, are restored, safeguarded and sustainably managed; and (iii) public, private and community investments equitably support restoration activities and strengthen value chains for restored ecosystem services. The outputs lead to three intermediate outcomes namely strengthened institutional and regulatory systems for climate-responsive planning and development; strengthened adaptive capacity and reduced exposure to climate risks; and strengthened awareness of climate threats and risk-reduction processes. The outcomes are expected to lead to two main impacts, improved resilience of ecosystems and ecosystem services and increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions. Ultimately, the project will contribute to reducing the cost of climate change on Kenya’s national economy by enabling pastoralists in arid and semi-arid counties to restore rangeland ecosystems and increase water security and land productivity, in order to adapt better to climate-change induced drought.

The project logical framework outlines the expected results, indicators, means of verification, baseline values and target values at mid-term and end-term. Critical assumptions underpinning the logical framework include:

- There is high level of receptiveness of the men, women and vulnerable populations to the content and timeliness of Early Warning Systems.
- Landscape level planning and climate action is adopted as a high-level agenda by the county governments and this is reflected in county budgets.
- The pursuit of climate adaptation benefits and the need to reduce risks of land degradation will strengthen and influence investment choices by government, communities and private sector.
- Critical mass of restoration related value chain companies take up value chain grants and kick start the crowding in process necessary for ongoing implementation.

(b) Baseline:

Baseline information for the indicators was identified during project preparation and provided in the logical framework. Baseline data gaps will be addressed through a comprehensive programmatic baseline during the inception phase. The baseline will inform specific programmatic targets.

(c) Outputs: A simple progress ranking tool will be used to assess the delivery of project outputs. This ranking tool will be part of the project results dashboard. A description of the progress ranking tool is provided below:

Ranking	Description	Criteria
1	Above expectations	<ul style="list-style-type: none"> • Activities and results exceed workplan targets • There have been significant time and/or resource efficiencies • Results are being achieved significantly faster than expected • Project activities have contributed to unexpected positive results (e.g. among non-target beneficiaries, or outside target areas)

2	On target	<ul style="list-style-type: none"> Activities and results align with workplan
3	Below expectations	<ul style="list-style-type: none"> Activities and results fall below workplan targets There are significant delays in delivery There are significant delays in achieving results Results are significantly lower than expected
4	Completed	<ul style="list-style-type: none"> Activities and results have been completed (No further reporting is required)
5	Cancelled	<ul style="list-style-type: none"> Activities have been cancelled (a justification should be provided)

(d) Behavioural Outcomes: It is anticipated that target beneficiaries' knowledge, skills, attitudes, and ultimately behaviour will be influenced by the project activities, and will result in enhanced landscape management and watershed protection practices being adopted and shared. Change in knowledge, attitude and skills will be tracked using an appropriate methodology that facilitates:

- understanding change as it emerges and in making real-time adjustments (quick feedback loop)
- rapid analysis of qualitative material and distributed (fragmented) information from multiple sources
- insights into different perspectives, attitudes and values associated with a set of pre-identified domains of interest
- weak signal detection in revealing hidden or emergent opportunities and threats
- generating evidence-based 'hard' and 'soft' data²⁰.

(e) Policy Influence: The project will contribute to the development or review of County-level policies and laws that will support integration of drought risk, natural resource management and climate adaptation. A Planning and Policy influence scorecard²¹ will be used to track the project's influence on target policy processes.

(f) Impact: The project will quantify the realization of projected benefits of sustainable forest management and watershed protection per GCF Criteria. The benefits are expected to include long-term resilience of rangeland communities and ecosystems improved livelihoods and contributions to climate change mitigation.

Tools to be used include Participatory Assessment of Land Degradation and Sustainable Land management in Grassland and Pastoral Systems -PRAGA²², Stakeholder Approach to Risk Informed and Evidence Based Decision Making (SHARED)²³, Saiku²⁴ and InVEST. These tools are user friendly and customizable for specific data collection and analysis.

InVEST is an ecosystem services analysis and mapping tool that is effective for balancing competing environmental and economic goals.

(g) Learning: This will be guided by a learning strategy which will include learning thematic modules and questions. We will monitor two aspects: a) capturing unexpected results as they arise, and b) making use of evidence from the MERL system to inform key learning questions, inform adaptive management, and inform future project design and implementation. Learning will be integrated into project implementation by using learning questions to frame annual project management meetings, case studies and mid-term or other evaluations.²⁵

Case studies will be developed to package evidence of change resulting from the project's interventions. They will present a sample of success and failure-cases.

²⁰ <https://www.vec0-ngo.org/en/project/inclusive-business-scan>

²¹ Annexed

²² <https://www.iucn.org/theme/ecosystem-management/our-work/global-drylands-initiative/gdi-projects/participatory-assessment-land-degradation-and-sustainable-land-management-grassland-and-pastoral-systems-praga>

²³ <http://www.worldagroforestry.org/shared>

²⁴ Saiku Server is a web-based open source software that facilitates data visualization and data querying. www.openforis.org/tools/collect-earth/tutorials/saiku.html

²⁵ Clear Horizon Consulting <https://www.clearhorizon.com.au/>

(h) Data collection, management and reporting system: A fit-for-purpose data collection, management and reporting system will be deployed. Mobile data collection apps will be integrated in due course based on needs. Progress reporting will be on annual and semi-annual basis throughout the life of the programme. The annual/semi-annual reports will provide information on the performance of the project against planned activities and set targets. They will also provide details on the project achievements, evidence of success during the reporting period, constraints during implementation and how they were addressed. They will also include a compilation of lessons learned and financial expenditure statements.

(i) Methodology for monitoring and reporting of key outcomes

In addition to the above mentioned data collection and management tools, various approaches will be used to monitor the three key outcomes of the programme. The main approaches will include :

- Participatory rangeland assessments, combined with remote sensing to specifically monitor area covered by rehabilitated/protected ecosystems;
- Regular field/site monitoring visits to document and validate the number and coverage of ecosystem-based adaptation systems that have been established/enhanced through programme activities;
- Knowledge, Attitude and Practice (KAP) survey to monitor programme beneficiaries;
- Scorecards to assess degree of awareness and integration of climate change to national and sector plans; and
- Vulnerability assessments to monitor adaptive capacity and reduced exposure to climate risks.

(j) Monitoring and Evaluation Plan

IUCN is overall responsible for the monitoring and evaluation of the project and these responsibilities will be detailed in the M&E Plan. IUCN will report to the GCF as follows:

(a) Annual performance reports (APRs), including financial management reports, which will include dates and amounts disbursed for each funded activity and compliance with financial covenants; and

(b) An interim evaluation report and a final evaluation report for the project. The evaluations will assess the performance of the project against its project results which include the relevant GCF investment framework criteria, including financial/economic performance as part of the project efficiency and effectiveness criterion.

The APR will include a narrative report (with supporting data) on implementation progress based on the logical framework in the project, including a report on ESMS as well as gender. The report will be aligned with the modalities set out in the GCF results management framework and its performance measurement frameworks.

The M&E plan will detail the tools mentioned above including the progress ranking tool, the KAP survey, the policy influence scorecard, , PRAGA, SHARED, Saiku, InVest, DevResults and will have set targets for specific deliverables and benchmarks. The M&E plan will be the basic M&E tool for monitoring progress in project implementation. The plan will be developed during the inception period of the project and will be reviewed and updated periodically. The plan will be the responsibility of the PMU with a dedicated M&E officer supported by regional and global expertise in M&E and integrated with the M&E capabilities of the executing entities and other partners. The M&E data collection function will be supported at the field level by the Landscape Coordination Hubs and will be one responsibility of the Landscape Coordinators. Programme monitoring and evaluation activities include periodic site monitoring visits, indicator tracking through data collection, progress reporting, baseline surveys and reports and evaluation (mid-term review and end-term evaluation). The MERL system will support and feed into the Performance Reports submitted to the Fund on an annual basis.

The M&E plan will detail the tools mentioned above including the progress ranking tool, the KAP survey, the policy influence scorecard, the use of PRAGA, SHARED, Saiku, InVest, and will have set targets for specific deliverables and benchmarks. The M&E plan will be the basic M&E tool for monitoring progress in project implementation. The plan will be developed during the inception period of the project and will be reviewed and updated periodically. The plan will be the responsibility of the PMU with a dedicated M&E officer supported by regional and global expertise in M&E and integrated with the M&E capabilities of the executing entities and other partners. The M&E data collection function will be supported at the field level by the Landscape Coordination Hubs and will be one responsibility of the Landscape Coordinators. Programme monitoring and evaluation activities include periodic site monitoring visits, indicator tracking through data collection, progress reporting, baseline surveys and reports and evaluation (mid-term review and end-term

evaluation). The MERL system will support and feed into the Performance Reports submitted to the Fund on an annual basis.

(k) Interim Evaluation and Final Evaluation:

Interim Evaluation (IE): An independent Interim Evaluation will be carried out no later than Year-3 of programme implementation. The interim evaluation will be an important milestone of the project and will be guided by the DAC²⁶/OECD²⁷ evaluation criteria on relevance, validity of design, performance (effectiveness, efficiency and timeliness), efficiency, sustainability and impact orientation. The evaluation will also pin-point issues requiring decisions and actions, restructuring needs and lessons learned on the project design, implementation and management. The IE findings and recommendation will be disseminated to stakeholders. Furthermore, a management response to the interim evaluation review recommendations together with a plan for implementing the required changes will be developed and its implementation status tracked. The Terms of Reference for the IE will be prepared by IUCN in consultation with the executing agencies and the funding agency (GCF). Recruitment of the consultant to carry out the IE will be in accordance with IUCN procurement policies/regulations.

Final Evaluation: An independent end of project evaluation will take place three (3) months prior to the project closing date in Year-5. This evaluation will focus on the same issues as the Mid Term Review. However, it will also examine indications of impact and sustainability of results, including the contribution to achievement of the overall project objective. In addition to lessons learnt, the final evaluation will also provide recommendations for follow-up activities and other relevant management, strategic and/or policy actions. Management response to issues raised in the end of project evaluation will be prepared by the Project Manager. Review of the quality of the evaluation report will be done by Project Management Unit (PMU) in consultation with implementing and executing agencies, after which the report will be submitted to the Steering Committee for further review and comments. The final report will eventually be submitted to GCF.

²⁶ DAC - Development Assistance Committee

²⁷ OECD – Economic Cooperation and Development

I. SUPPORTING DOCUMENTS FOR FUNDING PROPOSAL

- Annex 1. NDA No-objection Letter
- Annex 2. Feasibility Study
- Annex 3. Economic and Finance Analysis including Sensitivity Analysis
- Annex 4. Letters of commitment for co-financing
- Annex 5. Environmental and Social Management System - Questionnaire and Screening Report and ESM
- Annex 6. Gender Analysis Report
- Annex 7. Map indicating the location of the project
- Annex 8. Timetable of project implementation
- Annex 9. Stakeholder Consultation Report
- Annex 10. Budget & Budget Notes
- Annex 11. Procurement Plan
- Annex 12. Samples of grantees projects
- Annex 13. Monitoring & Evaluation Plan
- Annex 14. IUCN Letter of confirmation for EEs' capacities and Capacity Assessments Forms

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



REPUBLIC OF KENYA

THE NATIONAL TREASURY AND PLANNING

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THE NATIONAL TREASURY
P O BOX 30007 – 00100
NAIROBI

When Replying Please Quote

Ref: CONF/MOF/36/021/C/101

Date: March 4, 2019

Mr. Yannick Glemarec
Executive Director
Green Climate Fund
Songdo Business District
Yeonsu-gu, Incheon 22004
Republic of Korea

Dear

Mr. Glemarec

Re: Funding Proposal for the GCF by IUCN regarding ‘TWENDE Towards Ending Drought Emergencies: Ecosystem Based Adaptation in Kenya’s Arid and Semi-Arid Rangelands’

We refer to the project *“TWENDE Towards Ending Drought Emergencies: Ecosystem Based Adaptation in Kenya’s Arid and Semi-Arid Rangelands’.*” as included in the funding proposal submitted by the International Union for Conservation of Nature (IUCN) to us on February, 2019.

The undersigned is the duly authorized representative of the National Treasury, the National Designated Authority of Kenya.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the project as included in the funding proposal.

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

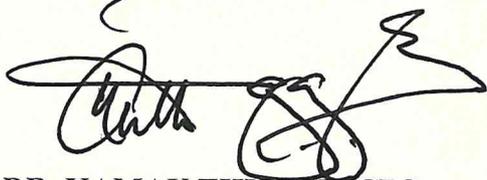
- (a) The Government of Kenya has no-objection to the project as included in the funding proposal;
- (b) The project as included in the funding proposal is in conformity with Kenya’s national priorities, strategies and plans;
- (c) In accordance with the GCF’s environmental and social safeguards, the project as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the project as included in the funding proposal has been duly followed. Further, we confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme.

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

Yours

Sincerely

A handwritten signature in black ink, appearing to read 'Kamau Thugge', written over a horizontal line.

DR. KAMAU THUGGE, CBS
PRINCIPAL SECRETARY/NATIONAL TREASURY

Copy to: Luther Bois Anukur
Regional Director, Eastern and Southern Africa
International Union for Conservation of Nature (IUCN)

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

Basic project or programme information	
Project or programme title	TWENDE - Towards Ending Drought Emergencies: Ecosystem Based Adaptation in Kenya's Arid and Semi-Arid Rangelands
Existence of subproject(s) to be identified after GCF Board approval	Yes
Sector (public or private)	Public
Accredited entity	International Union for Conservation of Nature (IUCN)
Environmental and social safeguards (ESS) category	Category B
Location – specific location(s) of project or target country or location(s) of programme	Kenya, two priority landscapes: 1) Mid Tana River (including Sabarwawa) consisting of 8 Counties – Samburu, Marsabit, Isiolo, Garissa, Tana River, Meru, Tharaka Nithi and Kitui; and 2) Chyulu Hills landscape which consists of 3 counties i.e. Taita Taveta, Makueni, Kajiado.
Environmental and Social Impact Assessment (ESIA) (if applicable)	
Date of disclosure on accredited entity's website	Wednesday, June 5, 2019
Language(s) of disclosure	English
Explanation on language	The ESMF has been disclosed in English as the NGOs working with the local communities on the ground are proficient in English, an official language. A summary of the ESMF is being translated into Swahili and will be uploaded on the IUCN website and shared locally with the communities shortly.
Link to disclosure	https://www.iucn.org/sites/dev/files/fp-iucn-kenya-twende-annex 5 b esmf kenya 31052019 final.pdf
Other link(s)	IUCN website: https://www.iucn.org/gcf-iucn-partnership/projects Ministry of Agriculture, Livestock, Fisheries and Irrigation (MoAI) website: http://www.kilimo.go.ke/?page_id=623 National Drought Management Authority (NDMA) website: https://www.ndma.go.ke/index.php/resource-center/category/42-special-reports
Remarks	An ESIA consistent with the requirements for a category B project is contained in the Environmental and Social Management Framework (ESMF)
Environmental and Social Management Plan (ESMP) (if applicable)	
Date of disclosure on accredited entity's website	Wednesday, June 5, 2019
Language(s) of disclosure	English
Explanation on language	The ESMF has been disclosed in English as the NGOs working with the local communities on the ground are proficient in English, an official language. A summary of the ESMF is being translated into Swahili and will be uploaded

	on the IUCN website and shared locally with the communities shortly.
Link to disclosure	https://www.iucn.org/sites/dev/files/fp-iucn-kenya-twende-annex_5_b_esmf_kenya_31052019_final.pdf
Other link(s)	IUCN website: https://www.iucn.org/gcf-iucn-partnership/projects Ministry of Agriculture, Livestock, Fisheries and Irrigation (MoAI) website: http://www.kilimo.go.ke/?page_id=623 National Drought Management Authority (NDMA) website: https://www.ndma.go.ke/index.php/resource-center/category/42-special-reports
Remarks	An ESMP consistent with the requirements for a category B project is contained in the Environmental and Social Management Framework (ESMF)
Environmental and Social Management (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), IPP Framework (if applicable)	
Description of report/disclosure on accredited entity's website	Wednesday, June 5, 2019
Language(s) of disclosure	English
Explanation on language	The ESMF has been disclosed in English as the NGOs working with the local communities on the ground are proficient in English, an official language. A summary of the ESMF is being translated into Swahili and will be uploaded on the IUCN website and shared locally with the communities shortly.
Link to disclosure	https://www.iucn.org/sites/dev/files/fp-iucn-kenya-twende-annex_5_b_esmf_kenya_31052019_final.pdf
Other link(s)	IUCN website: https://www.iucn.org/gcf-iucn-partnership/projects Ministry of Agriculture, Livestock, Fisheries and Irrigation (MoAI) website: http://www.kilimo.go.ke/?page_id=623 National Drought Management Authority (NDMA) website: https://www.ndma.go.ke/index.php/resource-center/category/42-special-reports
Remarks	Elements of an IPP Framework consistent with the requirements for a category B project are contained in the Environmental and Social Management Framework (ESMF)
Disclosure in locations convenient to affected peoples (stakeholders)	
Date	Wednesday, June 5, 2019

Place	<p>National Drought Management Authority (NDMA) website: https://www.ndma.go.ke/index.php/resource-center/category/42-special-reports</p> <p>The ESMF has been disclosed on the website in English as the NGOs working with the local communities on the ground are proficient in English. A summary of the ESMF is being translated into Swahili and will be uploaded on the website and shared locally with the communities shortly.</p>
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	Saturday, July 6, 2019

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

Secretariat’s assessment of FP113

Proposal name:	TWENDE – Towards Ending Drought Emergencies: Ecosystem Based Adaptation in Kenya’s Arid and Semi-Arid Rangelands
Accredited entity:	International Union for Conservation of Nature (IUCN)
Country/(ies):	Kenya
Project/programme size:	Small

I. Overall assessment of the Secretariat

1. The funding proposal is presented to the Board for consideration with the following remarks:

Strengths	Points of caution
The project strengthens the capacity of county governments, established in 2010, to address the threats of climate change	The project operates in 11 counties over two “landscapes”, which may lead to complicated arrangements for implementation, communication and delivery of results
The project operates at a low level, working directly with the communities, which is considered beneficial for long-term sustainability	The administrative and financial structure of the on-granting and loan award will need to be well coordinated
The project aims to increase the value to the local communities extracted from the environment through the development of value chains, cottage industries and support to micro enterprises	

2. The Board may wish to consider approving this funding proposal with the terms and conditions listed in the respective term sheet and addendum XIII, titled “List of proposed conditions and recommendations”.

II. Summary of the Secretariat’s assessment

2.1 Project background

3. The “TWENDE – Towards Ending Drought Emergencies: Ecosystem Based Adaptation in Kenya’s Arid and Semi-Arid Rangelands” project aims to increase the resilience of the livestock sector and other land-use sectors in restored and effectively governed rangeland ecosystems in Kenya’s arid and semi-arid lands (ASALs). The project targets eleven counties in the ASALs. The interventions are focused on increasing the adaptive capacities of communities and local institutions to develop evidence-based landscape planning by increasing accessibility to climate data and information; and enhancing the ability of community-based small businesses to access markets and financial services by developing value chains.

4. Climate change is projected to increase high inter-annual variability of rainfall and temperature, underlining the significant risk of increase in the frequency and severity of droughts and extreme events in ASALs in Kenya. ASALs in Kenya are dominated by rangelands with the predominant population practising pastoralism or extensive livestock production. In the absence of capacity to develop appropriate rangeland and landscape planning in these regions, the reduced recovery period between droughts presents serious risk to the resilience of the pastoral sector, reinforcing the heavy dependence on survival strategies that lead to unsustainable practices.

5. The total project finance is USD 34.54 million, with a request to GCF for grant finance of USD 23.15 million (67.0 per cent). The Government of Kenya, through the Ministry of Agriculture and Irrigation (MoAI), the National Drought Management Authority (NDMA), and the Water Resources Authority, is contributing USD 2.4 million, USD 2.4 million and USD 1.5 million, respectively. Conservation International (CI) is contributing USD 3.6 million in the form of grants and USD 0.8 million in the form of loans, the latter being sourced from CI Ventures, an investment fund operated by CI. Finally, IUCN is providing USD 0.69 million in the form of grants.

2.2 Component-by-component analysis

Component 1: Climate change adapted planning for drought resilience (total cost: USD 7.91 million; GCF cost: USD 5.51 million)

6. Under this component, the project will strengthen the management capacity of governance and local institutions to make evidence-based decisions when developing climate change sensitive landscape and management plans. Interventions will build on established information systems to incorporate improved climate change sensitivity and vulnerability analysis and downscale climate data, thereby increasing coordination of cross-county landscape planning.

7. The proposed interventions strengthen the local county administrations, which were established after the adoption of the new constitution in 2010 and which tend to lack adequate knowledge of climate change issues. This component is considered critical for the sustainability of the project and the long-term resilience of the target areas.

Component 2: Restoration of rangeland landscapes for ecosystem-based adaptation (total cost: USD 14.88 million; GCF cost: USD 9.48 million)

8. This component focuses on strengthening the implementation of climate change sensitive landscape management based on improved evidence-based planning. Interventions under this component include supporting communities to implement drought management activities, supporting communities to develop bylaws and incorporate county laws, and increasing the implementation capacity of local institutions.

9. The proposed interventions build on proven approaches and technologies for ecosystem-based adaptation in dry areas, and the interventions are very likely to be effective in reducing the impacts that are due to reduced reliability of rainfall. The focus on community engagement strengthens the sustainability of the interventions as well as the cost-effectiveness.

Component 3: Investments and incentives for climate change resilient ecosystem management (total cost: USD 9.95 million; GCF cost: USD 7.05 million)

10. This component aims to address the existing barriers of insufficient investment in rangelands and poor access to markets and financial services. Interventions will provide climate-resilient investment in priority value chains in livestock as well as secondary products to diversity sources of income. Additionally, it will develop community owned and managed revolving funds, which will be complementary and additional to a grant scheme to private sector enterprises.

11. The development of economically viable value chains is highly rated because it breaks the dependency of the local communities on accumulating wealth and reduces the risks of having large herds of cattle and other ruminants, which in itself is leading to increased land degradation due to overgrazing. Extracting more value out of the use of natural resources (e.g. through cottage industries at the community level) may be expected to reduce the intensity of natural resources use while reducing the exposure to droughts and other environmental calamities.

12. Micro and small enterprise development is supported through a dedicated funding window, using financial resources from CI in the form of micro loans. This funding window is considered to be complementary to the value chain support at the community level.

2.2.1. **Project management (total cost: USD 1.79 million; GCF cost: USD 1.10 million)**

13. All explicitly indicated project management costs are to be covered through the grant requested from GCF. Project management costs amount to 5 per cent of the total grant request to GCF.

14. It is expected that project management costs for the co-financing are to be borne by the co-financers.

III. Assessment of performance against investment criteria

3.1 Impact potential *Scale: High*

15. The proposed project has adaptation benefits for local communities and institutions through improved capacity in landscape planning and implementation, enabling evidence-based decision-making and creating incentives for community-led solutions.

16. The grants scheme provides incentives to create sustainable value chains by improving the entrepreneurship of local private sector enterprises.

3.2 Paradigm shift potential *Scale: High*

17. The project demonstrates opportunities for scaling up and knowledge-sharing beyond the project timeline and area, to cover a larger extent of landscape through activities aiming to enhance coordination among counties and local communities.

18. The emphasis on creating more value in the local communities through the development of cottage industries and support to micro and small enterprises is considered highly effective in breaking the dependency on natural resources and thus for hedging risks against crop failures.

3.3 Sustainable development potential *Scale: High*

19. The project will increase environmental resilience through restoration activities and long-term adaptive capacity-building at county and community level, from planning through to implementation of sustainable rangeland management and practices.

20. The development of cottage industries and support to micro enterprises delivers a long-term benefit that will persist beyond the lifetime of the project.

3.4 Needs of the recipient

Scale: High

21. Reduced recovery periods between droughts owing to an increase in their frequency and severity exacerbates the deterioration of vegetation conditions, leading to further environmental degradation. The direct beneficiaries of the project are among the poorest households in Kenya.

22. The administrative restructuring of governance after the adoption of the constitution in 2010 means that the new county governments have little knowledge and operational skills in dealing with climate change issues. This project addresses that gap through institutional capacity-building.

3.5 Country ownership

Scale: High

23. The proposal aligns well with national policies and strategies on climate change, such as the National Climate Change Response Strategy, National Climate Change Response Strategy, Kenya Climate Smart Agriculture Strategy, Kenya Strategic Investment Framework for Sustainable Land Management, the ASAL policy, the livestock policy and others. It also shows strong alignment with the country's nationally determined contribution and national adaptation plan.

24. The project takes a participatory approach and suggests a community-based approach, enabling autonomous community-led solutions. A high level of stakeholder engagement and consultation during the identification of priorities and target areas are well referenced.

3.6 Efficiency and effectiveness

Scale: Medium-High

25. The project demonstrates financial adequacy and minimum concessionality. The project seeks to address a market failure of collective action related to the management of communal rangelands in ASAL affected by climate change. GCF grant financing will be used for non-commercial activities that generate public benefits but cannot generate sufficient revenues to service a loan. Revenue-generating components, such as financial support to private enterprises, will be financed by loans through co-financing.

26. An economic analysis of the proposal shows high cost-effectiveness through a base case economic internal rate of return of 31 per cent over 14 years. The key economic benefits are reduced economic losses from droughts and increased income resulting from increased land productivity and community incomes through up-scaling nature-based enterprises. However, a sensitivity analysis shows the economic internal rate of return is low in a pessimistic scenario where the effect on incomes is 40 per cent lower than expected and reductions in losses from drought are 50 per cent less than expected.

IV. Assessment of consistency with GCF safeguards and policies

4.1 Environmental and social safeguards

27. The project aims to reduce the cost of climate change drought on Kenya's national economy by increasing the resilience of the livestock and other land-use sectors in restored and effectively governed rangeland ecosystems. The project will cover 11 counties in two priority ASAL of the country, Mid Tana River and Chyulu Hills. The project has three components: (1) climate change adapted planning for drought resilience; (2) restoration of rangeland landscapes; and (3) investments and incentives for ecosystem management.

28. The accredited entity (AE) has classified the project as likely to generate moderate environmental and social risks, equivalent to category B, following its environmental and social management system (ESMS). Based on its environmental and social screening, the AE anticipates that there will be no significant adverse risks and impacts. Instead, the risks and impacts are expected to be mild, few in number, generally site-specific, largely reversible and readily addressed through generally accepted mitigation measures.

29. While the landscapes and counties have been selected, the specific interventions and the exact locations have yet to be determined. To address this, the AE developed an environmental and social management framework (ESMF). The ESMF described the overall environmental and social context of the project, the likely environmental and social risks and impacts, measures considered to manage the risks and mitigate impacts, the policy landscape, the due diligence process and the implementation arrangements. The AE identified seven activities that are expected to generate risks and impacts and where the ESMF will be applied. The project applies the Standard on Indigenous Peoples of the AE as well as the GCF interim environmental and social safeguards (ESS) standards and Indigenous Peoples Policy; therefore, the ESMF incorporates the requirements and processes for further assessments and management of risks and impacts to indigenous peoples, and for meaningful consultations leading to free, prior and informed consent (FPIC). The ESMF also incorporates the processes for stakeholder engagement, information disclosure and the project-level grievance redress mechanism.

30. The ESMF describes the environmental and social due diligence process that will be undertaken for the activities to be supported under the project. The due diligence will integrate the national requirements under the Environment Management and Coordination Act 1999 and associated amendments, and the ESMS of the AE, aligned with the requirements of the GCF interim ESS standards. The process for screening, including screening criteria, is included in the ESMF. The ESMF also provides the list of excluded activities, including high environmental and social risk activities, and other activities that may have significant risk related to physical and economic displacement, restrictions on water use, degradation of critical natural habitats, activities affecting indigenous peoples without having obtained FPIC, and infrastructure with potential impacts on natural resources, among others. The eligibility criteria are also included as part of the screening and selection of locations.

31. For moderate risk activities, the due diligence process will involve the conduct of an impact assessment and risk management, based on the identified risks and impacts. In instances where there are significant likely social impacts, as in cases where there are indigenous peoples in the project or that may involve land or livelihood disturbances, a social impact assessment (SIA) will be undertaken. The environmental and social impact assessment (ESIA) and/or an SIA will form the basis of the various management plans that may include the environment and social management plan or other specific plans, such as inclusion plans for marginalized communities. The impact assessment process will be concluded with the issuance of ESMS

clearance following a review of the adequacy of the ESIA and the ESIA process by the Project Management Unit (PMU).

32. **Salient environmental and social impacts.** The project is expected to generate moderate environmental and social impacts taking into account the small-scale nature of the activities, the sensitivity of the dryland ecosystem and the complexity of the social organization and institutional arrangements. The project is also expected to deliver positive impacts from the restoration activities, land and water conservation and management, and investments in priority value chains as well as to provide incentives for sustainable land management and grants for private sector enterprises. As the design and locations of the interventions will be determined during implementation with the participation of the communities, the specific risks and impacts will be detailed through ESIA.

33. The expected environmental impacts include the introduction of invasive species, potential land-use changes, sediment movement, disturbance of natural habitats, biodiversity and soil, and localized impacts from value chain activities. These, however, are readily mitigated through the application of best practices in rangeland management and natural regeneration processes. On the other hand, the social impacts may include temporary losses of livelihood, resource competition, impacts on marginalized and vulnerable communities, and impacts on cultural heritage.

34. An important impact of the project is the impact on the indigenous peoples. The ESMF provides a framework for consultations, further assessments and planning for mitigation. Further site-specific social assessments and/or vulnerability assessments including stakeholder identification and analysis will provide an adequate basis for the application of the AE ESS and GCF interim ESS standards, including a specific inclusion plan, or indigenous peoples plan, as may be necessary. FPIC will be obtained at various levels and will apply to indigenous peoples as well as to a wider group of marginalized peoples. The process for obtaining FPIC in the context of the project is described in the ESMF.

35. Conflicts around resource use are also anticipated in the project. The measures identified in the screening process provide an approach to conflict sensitivity (including participatory management and planning, consultations and incorporation of measures for conflict resolution) in the project-level grievance redress.

36. While some of the activities may involve potential temporary restriction of access to resources, which could lead to livelihood loss, the restrictions will be voluntary and will not change the land uses or rights to the resources, and such restrictions will be collectively decided by the communities as part of their community land-use plans. Where land may be required for small-scale water or restoration infrastructure, the use of such lands will be provided on a voluntary basis following the provision of documented consent from the landowner.

37. **Stakeholder engagement, information disclosure and grievance redress.** The ESMF describes the process for continuing stakeholder engagement, which follow the principle of the AE on stakeholder engagement. A participatory engagement approach is central to the design of the project and is incorporated into the project's three components. The levels of engagement follow the level of expected risks and are indicated in the ESMF, with the process for FPIC being the highest level of engagement. The ESMF also includes a report on the stakeholder consultations that have been undertaken to date.

38. The ESMF also describes the information disclosure requirements, which follow the principle of the AE on accountability. The disclosure of information on activities, including the likely environmental and social risks and impacts, will involve local disclosure at locations

accessible to the communities (including indigenous groups) and will be provided in English and appropriate local languages.

39. A project-level grievance redress mechanism has been developed, consistent with the grievance mechanism guidance note of the AE. The three-stage process involves the resolution of grievance at the executing entity (EE) and affected party level, at the project management unit level, and at the institutional level of the AE. The principles of the grievance redress mechanism of the AE will be applied in the project level mechanism. The ESMF provides a process for handling non-eligible complaints. The entire process, from receiving complaints to the implementation of corrective actions, is outlined and includes a description of responsible persons or entities as well as the time frames.

40. **Institutional arrangements and capacity-building.** The AE will maintain oversight for the project's compliance with the ESMS. The ESMF summarizes the key responsible persons from the NDMA, one of the EEs, and the PMU, and there are ESMS officers for each of the ESMS processes described in the ESMF. The indicative budget for implementing the ESMF is provided in the ESMF. The budget includes staff training, screening and scoping activities, the conduct of assessments and management plans, implementing environmental and social management plans, clearance and supervision, and evaluation. In order to build the capacity of the EEs to implement the tasks assigned to them in the ESMF, safeguards training will be conducted and delivered by ESMS officers from the AE, the International Union for Conservation of Nature (IUCN).

4.2 Gender policy

41. The proposal contains an extensive and well-structured gender analysis and therefore complies with the operational guidelines of the GCF Gender Policy and Gender Action Plan.

42. Kenya presents a favourable enabling environment, giving recognition to women's rights and human rights. The principle of equality and non-discrimination is established as a core value.

43. Detailed gender-related information is given for the two landscapes where the project will be operating, and the information clearly illustrates the challenges and opportunities for the project to address and invest on. The gender analysis, which was done using gender analysis tools, has enabled an extensive assessment to be undertaken of the two landscapes in terms of the level of access and control issues in what are regarded as critical resources such as land (ownership, access, decision-making), natural resources, livestock and the services that are associated with it (e.g. animal health, agricultural extension services, markets, market information, credit). The assessment presents the differences in the position, roles (time use or time poverty) and decision-making levels of women compared with those of men in the two landscapes. The assessment highlights that women lack capital and assets that can be put up as collateral to engage in diversified income and livelihood-generating activities and therefore there is a need for the project to address this. The assessment also stated that women and youth face many more challenges in accessing services and technologies despite their significant contributions to the local economies and to maintaining the well-being of the community. It emphasizes the "time poverty" faced by women, which will be one of the issues to be considered by each project at the activity implementation level. The assessment demonstrates the structural and traditional perceptions and belief systems that relegate women to their current positions, which needs to be improved by strongly recognizing that these changes will have to come with the involvement of men. The analysis indicates that illiteracy levels among women and girls are high and therefore recommends appropriate communication modalities to ensure

knowledge and information are equally shared and understood by women and men. It further highlights the added disadvantage of female-headed households and makes specific recommendations to remedy the challenges faced by these households. The assessment has provided several recommendations which, if applied, can improve the role, contribution and benefits for women in the improvement of natural resource management, in negotiating peace talks, in improving the sustainable and equitable use of natural resources and community-based management of rangeland and rehabilitation works. At the same time the assessment identified specific interventions that need to take place to improve women's benefits. The project is expected to benefit women in terms of: increased access to technologies to increase agricultural and animal production; enhanced capacity to implement sustainable disease control; support for income-generating activities to diversify income sources from on- and off-farm activities and services; access to financial support services; and improved natural resource management and equitable access to resources, rangeland rehabilitation and management interventions. The project expects to be progressively gender responsive by building on gender-sensitive activities, by continuously identifying and overcoming gender gaps, and by ensuring women's empowerment and that more effective and equitable outcomes are achieved.

44. The assessment also identified youth as a target, so it is planning to address this in detail during the inception phase of the project.

45. The recommendation of the gender analysis has been translated into an extensive and detailed gender action plan, clearly outlining objectives, specific activities, indicators and responsibilities that are aligned to the project outputs and further defined into specific activities. It is also going to be refined in the inception phase of the project to incorporate youth programming whereby the gender action plan will become a gender and youth action plan.

46. A gender task group will be established early in the project, drawn from the different institutions of the project. IUCN will lead the gender task group that will be responsible for implementing the gender and youth action plan. Training and capacity-building on gender and youth programming will be held for all the institutions working on the project. Specific support will be provided to the gender task group by the IUCN Global Gender Office.

47. During the monitoring and evaluation (M&E) plan preparations stage, baseline data and targets will be set against which progress and achievements on gender issues can be measured.

4.3 Risks

4.3.1. Overall programme assessment (medium risk):

48. The funding proposal requests a GCF grant of USD 23.15 million, accounting for 67 per cent of the total financing. The total project cost is USD 34.54 million, with co-financing by way of grants from the EEs/Government of Kenya, grant from the AE and subordinated loans from CI; and

49. There are three EEs for the three outputs; namely, MoAI for component 1, NDMA for component 2, and CI for component 3. Given the large project areas (11 counties; 500,000 hectares) and the engagement with three EEs, the success of the project depends on the efficient coordination among the AE, the EEs and other relevant stakeholders. A coordination mechanism will be provided through "landscape coordination hubs" operated by the AE. In addition, the AE states that NDMA has a coordination mandate and has staff in all counties in project target areas. As a lead EE, NDMA will also provide a coordination function supported by the coordination hubs that divides the counties into manageable units.

4.3.2. AE/EE capability to execute the current programme (medium risk):

50. IUCN has an extensive track record in implementing climate change adaptation in the region. The AE has also been partnering with government agencies and non-governmental organizations on ASAL management and forest landscape restoration in Kenya since 2008. The IUCN Eastern and Southern Africa Regional Office based in Kenya and IUCN Headquarters, through its Global Nature-based Solutions Group, will be responsible for technical quality and ensuring progress. It is noted that while the experience of the AE working with the Government of Kenya since 2008 and its track record of implementing adaptation activities are expected to support the project implementation, the three readiness grants under implementation by IUCN experienced delays in implementation. However, subsequently IUCN has shown improvement in implementation of these readiness projects; and

51. The three EEs have track records in project implementation. MoAI has experience in managing projects (average size: USD 37 million) and executing a regional project financed by external donor funding for 2015-2019. The annual budget in 2017/2018 of NDMA was USD 59 million. It has experience in implementing projects (average size: USD 15 million) and administering the National Drought Contingency Fund in Kenya. Finally, CI has been working in Kenya for 20 years and works with local partners in the landscapes. It has invested more than USD 450 million in over 80 countries.

4.3.3. Programme-specific execution risks (medium risk):

52. Grant and loan financing under component 3: this includes (1) technical assistance; (2) an on-granting mechanism (small grants to community-based/women's organizations and large grants for enabling action in value chains); and (3) an on-lending/revolving fund mechanism. The funding proposal states that mostly grants from GCF will be provided in the early stage and loans from CI will follow, should the business develop and become investable. According to the information provided by the AE, there will be opportunities to take a blended finance approach (grant and loan) on certain investments. During the implementation of component 3, the AE is relied upon to oversee how GCF grants will help to leverage additional financing that will strengthen the climate resilience of the beneficiaries. The AE is also expected to ensure that the GCF grant be beneficial to the end beneficiaries, not to CI;

53. Reflows from the revolving fund: regarding the Community Resilience Facilities under activity 3.3, the funding proposal states that the grant to communities will be retained as an asset to the community for restoration purposes and the community will use this to establish and capitalize the solidarity revolving fund. The AE states that this is not commercial microfinance and there is no profit taking. In case loans from CI are used for scaling up the Community Resilience Facilities, it is recommended that reflows from activities jointly financed through GCF grant and CI loans are attributed proportionately to the community-managed revolving fund and CI;

54. Selection criteria: the AE states that the grants to communities will be based on the criteria to be developed by communities for the climate-resilient land use/restoration plan. The funding proposal states that the criteria will be coherent with the county and national bylaws/laws, which would also include climate change elements. The selection and eligibility criteria for the grants and loans will be overseen by CI and based on its experience and processes. It is recommended that the AE and EEs ensure that climate change criteria will be detailed in the grant and loan assessments as well as county/national plans;

55. Natural disaster: the AE has identified the risk of natural disasters such as prolonged droughts and torrential rainfalls delaying or destroying the project interventions. However, the

funding proposal states that the project is not expected to insure the project intervention. It is expected that drought will occur during the project period. The AE is requested to explore the possibility of securing insurance coverage for the project to cover any potential damages during the implementation of the project;

56. Possible other interventions that may affect the sustainability of the project: the AE has identified the risk of other investment decisions regarding irrigation that may be negative externalities and affect the effectiveness of the project. It also identified the risk of economic activities such as mining that could affect the sustainability of the project. The project will support policy dialogues with relevant authorities and will also establish landscape management mechanisms to improve planning of natural resources. The mechanisms are designed to manage competing land uses and claims, thus reducing the probability of the risk of such interventions occurring; and

57. Economic viability: the AE has provided an economic analysis that yielded the economic internal rate of return of 31.15 per cent for the project over a 14 year-period as a base case. The analysis assumed that the project interventions will reduce economic losses by 5 per cent to 15 per cent under the pessimistic and optimistic scenarios, respectively, and increase the income level. The analysis also considered the likelihood of droughts over 14 years based on data for the past 50 years. The sensitivity analysis was undertaken by varying the discount rate at 10 per cent and 14.5 per cent, which resulted in an overall positive net present value for the project.

4.3.4. Compliance risk (medium risk):

58. No adverse hits have been found in a preliminary sanctions screening for the programme, but additional sanctions screenings should be done prior to any funding disbursements and as additional parties are identified in the project; and

59. Paragraph 35, above, recognizes the potential for conflicts to arise over resource use. No additional elaboration on the governance structure of the project, such as who will make decisions on resource use and how disputes will be addressed and resolved, has been provided by the AE. Nor has additional information been provided by the AE as to how corruption risks will be mitigated in cases of inequities in policymaking and power influence. In capacity-building exercises, it is suggested that training include compliance-related issues, including but not limited to prevention of money laundering and financing terrorism, but also in terms of preventing corruption, fraud and waste, which could compound the risk of conflict over the access to, allocation of, and use of limited resources.

4.3.5. GCF portfolio concentration risk (low risk):

60. In case of approval, the impact of this proposal on the GCF portfolio remains non-material and within the risk appetite in terms of concentration level, results area or single proposal.

4.3.6. Recommendation

61. It is recommended that the Board consider the above factors in its decision.

Summary risk assessment		Rationale
Overall programme	Medium	

Accredited entity (AE)/executing entity (EE) capability	Medium	The proposal engages three EEs and the efficient coordination mechanism among the AE and EEs will be critical
Project-specific execution	Medium	
GCF portfolio concentration	Low	
Compliance	Medium	The grant from GCF and loans from CI may be blended. The AE is requested to ensure that the grant financing is beneficial to the end beneficiaries

4.4 Fiduciary

62. The EEs for the project are the Government of Kenya (GoK), through the Ministry of Agriculture and Irrigation (MoAI), the National Drought Management Authority (NDMA) and Conservation International (CI), which is also an AE of the GCF.

63. Each of the EEs above will have a Subsidiary Agreement with IUCN as the AE for the project. As EE, they will enter into a service agreement with service providers and be accountable for the delivery of associated outputs under the three project components. Each of the EEs will undertake specific work with service providers that will support, through invited sub-contracts under the procurement and supervision of relevant EEs, while all other activities will be delivered by the EEs. CI will be responsible for: (i) making climate resilient investments in priority value chains that have been validated by local communities; (ii) providing grants to establish restoration created/led primarily by women’s groups; and (iii) providing grants to community-based enterprises for ecosystem-based adaptation that could create opportunities for investments in the value chains.

64. The AE function will be undertaken by the regional office for Eastern and Southern Africa (ESARO) of IUCN, based in Nairobi, Kenya, while the thematic expertise on drylands management and general oversight will be from the Global Finance Unit and the IUCN Global Environment Facility (GEF) and GCF Coordination Unit. As AE, IUCN is responsible for providing strong technical oversight to the project and ensuring that all fiduciary rules, including procurement, are compliant with IUCN and GCF standards. In addition, IUCN will be accountable to the GCF on the use of funds, the overall implementation on the ground and achievement of the project’s outcomes.

65. IUCN will establish a Project Management Unit (PMU), coordinated and managed by IUCN in partnership with and housed by the MoAI. The PMU will be responsible for the coordination of all activities funded by the project and undertaken by EEs. All members of the PMU will be recruited under IUCN terms and conditions. Given the geographical distribution of the project, the PMU will work with three landscape hub coordinators to ensure the smooth running of the project across the different institutions including EEs, county governments, consultants, service providers and other partners. The hubs will be hosted by one of the county governments and housed in government offices. Furthermore, a Project Steering Committee (PSC) will be established to provide strategic-level project guidance, technical and policy advice to the PMU and an implementing agreement will be signed between IUCN and the Chair of the PSC, representing the MoAI, to regulate relationships between IUCN and the PMU for the implementation of the project.

66. The IUCN Global Finance Unit will manage fund disbursements to the PMU based on semi-annual work plans agreed by the ESARO supervision team. Funds will be transferred to IUCN and kept in a bank account dedicated to the project. The PMU will be responsible for the accounting and fiduciary management of all funds disbursed. The PMU will adopt IUCN's accounting systems and will be audited independently by auditors selected through a competitive bidding process where TORs are approved by IUCN Global Finance Unit on a yearly basis.

67. IUCN will develop and implement a monitoring, evaluation, reporting and learning system, which will include providing to the GCF the Annual Performance Report, an Interim Independent Evaluation Report and Final Independent Evaluation Report.

4.5 Results monitoring and reporting

68. This proposal addresses adaptation impact on two result areas – most vulnerable people/communities and ecosystem/ecosystem services, with the expected number of direct and indirect beneficiaries at 155,000 and 620,000, respectively.

69. In terms of the logical framework, the funding proposal adequately designs the indicators and the methodologies to be used for their measurement at the impact, outcome and output level. For monitoring, reporting and evaluation arrangements, an M&E plan has been developed to measure and track impact and project indicators, including time of availability, reporting line, and methodologies used detailing overall responsibility of the AE for project M&E. The alignment of the M&E plan and relevant sections in the funding proposal has also been addressed.

4.6 Legal assessment

70. The Accreditation Master Agreement (“AMA”) was signed with the Accredited Entity on 11 October 2016, and it became effective on 11 January 2017.

71. The Accredited Entity has not provided a legal opinion/certificate confirming that it has obtained all internal approvals and it has the capacity and authority to implement the project. It is recommended that, prior to submission of the Funding Proposal to the Board (a) the Accredited Entity has obtained all its internal approvals and (b) the Fund has received a certificate or legal opinion from the Accredited Entity in form and substance satisfactory to the Fund confirming that all final internal approvals by the Accredited Entity have been obtained and that the entity has the authority and capacity to implement the project. Pursuant to section A.3 of the Funding Proposal, the Accredited Entity obtained its internal approvals for the proposed project on 25 May 2018.

72. The proposed project will be implemented in the Republic of Kenya, a country in which GCF is not provided with privileges and immunities. This means that, amongst other things, GCF is not protected against litigation or expropriation in this country, which risks need to be further assessed. The Secretariat sent a draft agreement on privileges and immunities, together with a background note, to the Treasury Department of Kenya on March 2016, and several exchanges have taken place to respond to comments received from the Attorney General's Office and the Ministry of Foreign Affairs of Kenya. In this regard, discussions on the draft agreement on privileges and immunities are ongoing.

73. The Heads of the Independent Redress Mechanism (IRM) and Independent Integrity Unit (IIU) have both expressed that it would not be legally feasible to undertake their redress

activities and/or investigations, as appropriate, in countries where the GCF is not provided with relevant privileges and immunities. Therefore, it is recommended that disbursements by the GCF are made only after the GCF has obtained satisfactory protection against litigation and expropriation in the country, or has been provided with appropriate privileges and immunities.

74. The proposed project envisages the financing by GCF of the provision of grants and loans under four different activities within the same Project component, for which Conservation International (“CI”) will act as the executing entity. However, the eligibility criteria for the selection of the beneficiaries and sub-projects, and the relevant legal arrangements for the flow of funds, are not entirely nor clearly described in the funding proposal. Accordingly, for purposes of establishing the eligibility criteria for each of the abovementioned activities and defining how the granting and lending mechanisms will be implemented by CI, the Accredited Entity shall submit an initial eligibility criteria prior to the signing of the funded activity agreement and a Grants Award Manual approved by CI and the Accredited Entity prior to first disbursement by GCF, both in form and substance satisfactory to the Secretariat. Relevant provisions have been agreed with the Accredited Entity in the term sheet to ensure that the above matters are timely addressed and clarified prior to the signing of the funded activity agreement and complied with during the implementation of the Project.

4.7 List of proposed conditions (including legal)

75. In order to mitigate risk, it is recommended that any approval by the Board is made subject to the following conditions:

- (a) Delivery by the Accredited Entity to the Fund of a certificate or legal opinion confirming that it has obtained all its internal approvals within 120 days of the Board approval;
- (b) Signature of the funded activity agreement in a form and substance satisfactory to the Secretariat within 180 days from the date of Board approval or the date in which the Accredited Entity has provided a certificate or legal opinion confirming that it has obtained all internal approvals, whichever is later; and
- (c) Completion of legal due diligence to the satisfaction of the Secretariat.

Independent Technical Advisory Panel's assessment of FP113

Proposal name:	TWENDE – Towards Ending Drought Emergencies: Ecosystem Based Adaptation in Kenya's Arid and Semi-Arid Rangelands
Accredited entity:	International Union for Conservation of Nature (IUCN)
Project/programme size:	Small

I. Assessment of the independent Technical Advisory Panel

1.1 Impact potential

Scale: High

1. Kenya is a country impacted by climate change. The country is located in Eastern Africa, which receives little rainfall. However, it has arid and semi-arid regions, which are not particularly suitable for crop agriculture due to high evaporative losses. Rather than crop agriculture, these arid and semi-arid lands (ASAL) used to be more suitable for livestock management, given the low rainfall and pockets of water storages and pastures around them. However, with increasing population, many people have started to take advantage of such mini community-managed water reservoirs and have begun irrigated crop agriculture. This has resulted in competition over resources, gradually destroyed community-managed governance norms and practices, subsequently led to much reduced availability of water in such reservoirs for the livestock, and initiated social conflicts.
2. ASALs occupy 89 per cent of Kenya, and such lands are home to 36 per cent of the population. Pastoralism has been the dominant livelihood in ASALs, providing for 70 per cent of the national livestock herd. Livestock is important for local economy in ASALs. Livestock production contributes to 80 per cent of household income in arid and 65 per cent of income in semi-arid lands. In recent times, however, ASALs have been experiencing repeated occurrences of droughts, which has affected livestock rearing. It is estimated that drought has been responsible for decelerating Kenya's economic growth by 2.8 per cent points.
3. To make things worse, climate variability and change placed further stresses on water resources by increasing potential evapo-transpirative losses, with further shrinking water reservoirs for both pastures and crop agriculture. As a consequence, both sources of livelihoods have begun to incur losses, which could not be offset by profits made in non-drought years between two severe drought episodes. As a result, the economic conditions of rangeland pastoralists and farmers have deteriorated significantly over the years, leading them to consider distress coping modalities. As a result the affected rangeland population has become further marginalized in economic and social terms.
4. The funding proposal presents evidence through the trend analysis of meteorological data for the period 1960 to 2009, which informs us that (a) there has been a warming trend and (b) total rainfall has been declining with intensification of rainfall episodes during the wet periods. The trend analysis also indicates that the potential evapo-transpirative losses are on the rise. The maps generated by the geographical information system clearly identify the areas where drought-related impacts are most pronounced. Ground evidence presents anecdotal data that support the scientifically represented results on the changing climate system.

5. The projected climate change is most likely to increase drought-related problems in Kenya. While the water availability is likely to decline further due to dwindling rainfall, the projected data suggest that drought intensity will increase further with increasing evapotranspirative losses. Certain anecdotal evidence from the field suggest that, as much as 40 per cent loss of water availability in community-managed ponds in the rangelands may be attributed to climate change-induced droughts. Droughts have already affected vegetation and grazing grounds, which will be significantly worse under climate change. Therefore, the productivity from livestock management and crop agriculture will decline further with increasing risks of food insecurity involving poor pastoralists and farmers in the ASAL regions. This warrants immediate actions in the ASAL regions.
6. The objective of the project is to reduce the cost of climate change-induced drought on Kenya's national economy by increasing resilience of the livestock and other land use sectors in restored and effectively governed rangeland ecosystems. The project is expected to strengthen climate change adaptation in Kenya's ASALs. In addition to building adaptive capacities at community and institutional levels, the project aims at strengthening institutional capacities to support poor communities by providing them with early information on climate change, and intervene to develop planned allocation of water resources in community-managed mini water reservoirs to facilitate both pastures and crop agriculture. Moreover, the project aims at developing a financial window, in the form of a fund, to facilitate micro-enterprises that are run and managed by the affected communities in target ASALs.
7. The project comprises the following three components:
- (a) Component 1: Climate change adapted planning for drought resilience;
 - (b) Component 2: Restoration of rangeland landscape for ecosystem-based adaptation (EBA); and
 - (c) Component 3: Investment and incentives for climate change resilient ecosystem management.
8. Under component 1, the project will strengthen management capacity of governance and local institutions so that informed decisions are made to develop climate change-resilient landscape planning and management plans. A critical step to achieve this is the establishment of an information system to make use of downscaled climate data in improved analyses regarding climate change sensitivity and vulnerability, with the latter being integrated in cross-county landscape planning. The outcome of the component will contribute to the long-term sustainability of county-level processes related to landscape planning and implementation.
9. Component 2 focuses on implementation of landscape plans that are centred around EBA, by involving communities for drought management. However, the other aspects of the component are to: (a) develop (operational) bylaws; (b) incorporate such bylaws into county laws; and (c) increase implementation capacity of local institutions. Here, the emphasis is placed on considering proven approaches and technologies for EBA in dry areas. Interventions which are generally proven in ASAL conditions as effective towards reducing vulnerabilities in a local context will be given priority in implementation of component 2, where a participatory process will be the key delivery modality.
10. Component 3 will focus on removal of investment barriers and creating access to markets and financial services. It is envisaged that, if investment barriers are removed and access to markets and financial services are ensured simultaneously, the local producers will participate in value chains in agriculture, forestry and livestock products and thereby will gain in terms of incremental income. To this end, the project will encourage the development of

community-owned and managed revolving funds and facilitate the operationalization of community-based micro-enterprises to benefit from penetrating the value chains. It is proposed that micro- and small community-based enterprises will be supported through a dedicated funding window, created under this component. The independent Technical Advisory Panel (iTAP) understands that implementation challenges exist for participation in value chains, where prior knowledge (i.e. through studies) and the establishment of a business model will be key to operating these micro-enterprises. Helping these nascent business units with financial packages will perhaps not be sufficient to transform them into successful business ventures.

11. The funding proposal indicates that a total of 155,000 people will directly benefit, of which 74,400 will be women beneficiaries. The beneficiaries are spread in two landscapes, involving 11 counties in drought-affected parts of Kenya. The methodology applied for the identification of target areas and population has been based on strong scientific reasoning. The number of indirect beneficiaries is estimated at 620,000 (297,600 of them will be women), who will learn from the process and may emulate successful participants of the project. An estimated 500,000 hectares of degraded land will be brought under restoration, protection and rehabilitation. The indicators used in the logical framework matrix are logically placed and a monitoring and evaluation plan is developed so that progress may be monitored and reported periodically. The project will be implemented within a time frame of five years.

12. In view of the above discussions, the iTAP understands that the impact potential is “high”. However, to realize the potential fully, coordination involving various grassroots institutions in 11 counties and across two target landscapes and the administration and financing of grants and loan awards need to be strengthened. Moreover, adequate capacity-building and guidance will be needed to involve the micro-enterprises in gainfully participating in existing value chains.

1.2 Paradigm shift potential

Scale: High

13. The project offers climate change information services to reach the target grassroots, which is likely to catalyze impacts beyond a one-off project investment. The good management practices, the development of bylaws and potential incorporation of such bylaws in county laws provide for learning and subsequent opportunities to scale up further consolidating resilience in drought affected ASALs. There is also potential to expand in counties which are not considered under the current project. When the current business as usual modalities of dealing with climate-induced vulnerabilities are considered, the project offers a potential paradigm shift in addressing the prevailing issues.

14. There is a theory of change that also indicates how the expected replication will be realized in future years. The activities will rely on local experiences, which may be easier to replicate elsewhere at minimum additional financing because of their contextual grounding and their implementation in a participatory process.

15. Capacity-building is considered as an inherent key mechanism to strengthen both local institutional capacities and the adaptive capacities of poor pastoralists and farmers. A number of activities are foreseen which are likely to contribute to the creation or strengthening of knowledge, especially through a collaborative learning process and institutional learning and strengthening. The monitoring and evaluation plan that accompanies the funding proposal highlights how indicators will be used to capture the progress and outcome of the entire learning opportunity. However, a robust baseline, including a knowledge-attitude-practices (KAP) baseline study, will allow a comparative study to be conducted towards the end of the project to highlight the effectiveness of the learning process.

16. As indicated above, component 2 is designed to create an enabling environment along with contributing to the reduction of community vulnerability to drought. There are clear indications that some of the institutional mechanisms, including the development and effective application of bylaws will enable improved governance in terms of accessing water from diminishing water pockets in the rangelands in ASALs. Such interventions along with sustainable resource management plans will enhance sustainability of the resources which are critical for livestock, forestry and agricultural production in these areas. If production cannot be streamlined to contrast the impacts of climate-induced droughts, it will not be possible to benefit from value chains in ASALs.

17. Since the forest regeneration, restoration and rehabilitation processes are planned as incentive-based community endeavours, subject to available modest resources in the future, their replication potential is significant. In addition, it is likely to bring about behavioural change among the managers and users of ecosystem-based services, thus bringing an element of inherent long-term sustainability to the project. As the theory of change suggests, if benefits accrue from such EBA-based goods and services, especially through the operation of micro-enterprises in value chains, then the direct benefits will incentivize future protection of the rangeland ecosystems in the long term.

18. The project does not directly create new markets for goods and services generated from the restoration of rangelands. However, the incentives designed for micro-enterprises, facilitating access to credit services and creating links to existing value chains will immensely help them to make financial profits from ecosystem-based products. Under the current scenario, local people do not often get the larger share of profit from sales of such products. With project-related support, local micro-scale businesses will flourish and are more likely to penetrate the value chains optimizing profits and sharing it among stakeholders at the local level. This also offers significant learning opportunities.

19. Project component 3 addresses removal of barriers to access financial support so that local people can establish and run micro-scale enterprises. In addition, component 1 addresses removal of barriers to access climate information at the micro-level. These are specific activities which are likely to help in overcoming systematic barriers that currently hinder progress for local people. It is expected that the project will directly intervene to remove such barriers.

20. As indicated earlier, the regulatory barriers and diminishing community governance practices will be addressed under component 2. As suggested in the funding proposal, if the local-level bylaws could be grafted into regulatory regimes for the participating counties, they could represent significant dividends in re-establishment of fair and just community-wide practices towards managing scarce resources that are critical for all the competing users. This can contribute greatly to future sustenance of resources in these fragile ecosystems.

21. EBA has not been given due importance in the formulation of policies and strategies towards managing natural resources in degraded ASALs in Kenya. This project provides an opportunity to consider EBA as a central element to address vulnerabilities of the rangelands and their direct users. If the project establishes norms and practices for the sustainable use and management of rangeland ecosystems, it will offer significant replication potential within and beyond Kenya as similar degraded ecosystems are abundant throughout Africa.

22. In view of the above discussions, the iTAP understands that the paradigm shift potential of the project is "high".

1.3 Sustainable development potential

Scale: High

23. The project will directly contribute to the achievement of a number of Sustainable Development Goals (SDGs), which are as follows:
- (a) SDG 1 (no poverty): *end poverty*, which will be addressed by allowing rangeland pastoralists and farmers to gain from sustainable management of water pockets and by taking part in both harnessing ecosystem-based goods and services sustainably and taking part in the value chain of products derived from such activities;
 - (b) SDG 5 (gender equality): *empower women and girls* and achieve gender equality, through participation in the project which will directly benefit women;
 - (c) SDG 6 (clean water and sanitation): *ensure availability and sustainable management of water*, where equitable water conservation and allocation among competing users will be ensured;
 - (d) SDG 13 (climate action): *take urgent action to combat climate change and its impacts*, being the specific target of the project; and
 - (e) SDG 15 (life on land): *protect, restore and promote sustainable use of terrestrial ecosystems, and sustainable forest management*, the project objectives fully reflect these aims.
24. In addition, the project will indirectly contribute to other SDGs, in particular:
- (a) SDG 2 (zero hunger): *end hunger and achieve food security*, where rangeland restoration and drought management are likely to increase food production; and
 - (b) SDG 16 (peace, justice, strong institutions): *promote peaceful (and inclusive) societies*, as reflected in the efforts to develop norms, bylaws and practices towards equitable sharing of water resources; the related governance mechanism will help reduce social tension among competing users and also help restore harmony within the participating communities.
25. The project is expected to result in some environmental co-benefits. If improved governance of rangelands is established, as expected, this will reduce soil erosion and enable more sustainable management of rangeland resources. Restoration of degraded rangelands is expected to lead to rehabilitation of the ecosystem, which will in turn contribute to restoration of ecosystem services and an increase in biodiversity. Although the focus of the project is to achieve adaptation, there will be some sequestration of carbon in restored forests and rangeland vegetation. With increasing vegetation and natural interactions with soil, conditions will be conducive to produce higher levels of moisture storage and infiltration, which in turn is expected to cause higher levels of recharge of aquifers. As a longer-term consequence, the changed conditions will boost productivity of the rangelands and its biodiversity.
26. Although the potential rehabilitation of the water cycle is expected only in the medium to longer terms, it will have positive externality not only on environmental aspects, but also on social aspects. For example, increased water availability through increased infiltration will enhance access to water, reduce social tension and competition and increase quality of life in the arid and semi-arid conditions. Moreover, reduced sedimentation is likely to increase water quality with positive effects on the communities, especially during the dry seasons when water scarcity is generally high.
27. It is expected that the project will contribute to strengthening of local governance, participation and accountability, which in turn will contribute to wider processes of citizen engagement and accountability. A possible revival of communal herding arrangements will reinforce the traditional social fabric of the pastoralists, which is a cornerstone of life in rangelands in Kenya.

28. There is a strong gender-based agenda in the design of the project. In addition to women's engagement in the participatory processes, a women's partnership with the private sector will be facilitated. A number of programmes targeting women, youth and marginalized groups are included in the project design. Women's involvement in the value chain and/or in the micro-enterprises will directly contribute to their empowerment. The climate change information system will enable women to address their differential perspective of vulnerability, and will offer them options that might suit their specific contexts. The project must ensure that solutions offered in building resilience are neither difficult for women to implement nor create an extra burden on their daily lives.
29. The expected financial returns from ecosystem-based services will stimulate the economy of Kenya following implementation of the project. Ecosystem restoration will translate into higher productivity by mitigating the adverse effects of drought.
30. Apart from such macro-scale benefits, there will be household-level economic benefits. Enhanced production will mean additional income for households and perhaps greater food security involving poor producers (both livestock and crop). Increased infiltration in restored landscapes is likely to recharge aquifers, contributing to livestock productivity and health. This in turn will contribute to higher incomes at the farm level while outputs from rangeland vegetation will also increase. Furthermore, greater participation in the value chain and income from the micro-enterprises are likely to boost local economies.
31. It is expected that restored landscapes will foster an increase in adaptive capacity in any given community. The entire process will enable the actors to initiate climate proofing of value chains. Improved grazing management in the selected landscapes will contribute to improved livestock health, productivity, survival rates and post-drought recovery. A resilient production system will eventually result in an increase in farm-level income through greater and assured production and subsequent generation of revenues.
32. On the basis of the above, it may be inferred that the sustainable potential of the project is "high".

1.4 Needs of the recipient

Scale: High

33. Kenya, as a country with arid and semi-arid regions, has been facing severe droughts. The country witnessed 23 drought events in 51 consecutive years between 1960 and 2011. The rangelands in ASALs are particularly vulnerable to drought, which is being exacerbated due to climate variability and change. Under drought conditions the rangeland population, particularly the pastoralists and crop producers, are the primary victims of climate change. Pastoralists are among the most disadvantaged population in Kenya, performing poorly on basic human development indicators such as mortality rates and literacy levels. Kenya's ASALs have fewer social services per capita, while the availability of infrastructure is much less than elsewhere. Having such a limited resource base, the pastoralists in ASALs account for over 70 per cent of the national livestock production in terms of milk, meat and hide.
34. Due to frequent exposure to severe droughts in ASALs, people are forced to consider distress coping methods, which have adverse implications on the economies of pastoralist households. Food insecurity and erosion of nutrition resulting from frequent droughts further undermine coping capacities of the pastoralist households.
35. In the wake of climate change-related water shortages in ASALs, crop producers also face frequent crop losses and food insecurity. The adverse effects of drought are often

characterized by complete depletion of pastures, lack of water for livestock, massive movement of animals in search of water and pastures and much aggravated incidences of livestock diseases. Crops often perish when the top soil loses moisture without being replenished to compensate for the depletion. In such cases, crop loss is quite common. Overall, drought related risks are very high in ASALs and the need of the population for adaptive measures is high.

36. ASAL regions are generally lagging behind in Kenya in economic terms, compared to other areas. Moreover, the backward counties in ASAL regions cannot make much progress due to weak institutional capacities, despite having greater access to resources following the decentralization in recent times. Agriculture, forestry and fishing contribute 15.2 per cent of gross domestic product, which represents the highest contributing sector to the gross domestic product. However, pastoralism is struggling under climate change and making way for the expansion of crop agriculture – giving rise to further competition over remaining and ever diminishing water resources in the rangelands. In such conditions, neither livestock management, nor crop agriculture can ensure sustainable livelihoods in the rangelands. Consequently, poverty is perpetuated in the rangelands of ASAL regions.

37. The request for financing to GCF will be for the investment in creating public goods and services. As an African country, a financing gap exists in Kenya in this regard. Unfortunately, there is no other alternative financing opportunity to fill in the gap. Private financing in such a sector cannot be leveraged if the state-owned institutions are not able to fill the critical initial financing gap. GCF financing is intended to address the prevailing financing gap and remove current barriers. Although it is a developing country, Kenya is entitled to access adaptation finance from GCF with full concessionality as an African country. Therefore, the requested grant financing appears fully justified.

38. Component 2 of the project is intended to create an enabling environment through the strengthening of institutional mechanisms. Such opportunities to strengthen institutional and implementation capacities in relevant institutions should be encouraged towards provisioning of better services to overcome climate change-related vulnerabilities.

39. The situational analysis clearly indicates that the needs of the recipients for the project are “high”.

1.5 Country ownership

Scale: High

40. The current project is designed on the foundation of a rich policy framework on climate change and drought. Kenya, the beneficiary country, enacted the Climate Change Act in 2016, which has been a result of documentation on and responses to droughts in the past few decades. As a precursor to the enactment of the law, Kenya launched its National Climate Change Response Strategy in 2010 and its National Climate Change Action Plan in 2013. Kenya carried out an adaptation technical analysis of economic sectors and prioritized adaptation actions, including integration of resilience into planning, budgeting and implementation of activities at both national and county levels. The current project is a reflection of such policy elements.

41. The proposed specific objectives and outcomes are in synergy with national policies and strategies of Kenya on climate change and sectoral aspects such as agriculture, forestry and sustainable land management. For example, the project aligns with the National Climate Change Response Strategy, National Climate Change Action Plan and key plans of Kenya such as the Nationally Determined Contribution and National Adaptation Plan. The project also aligns with the Kenya Climate Smart Agriculture Strategy as well as Kenya Strategic Investment Framework for Sustainable Land Management, Livestock Policy and ASAL Policy. Therefore, the project

appears to be well grounded within the policy and strategic approach to address the issues that are relevant in ASAL productivity involving crop, forestry and livestock resources.

42. The Government of Kenya is a member of the International Union for Conservation of Nature (IUCN). IUCN has been a trusted partner of the Government having experience in working on policy formulation and implementation, particularly in the field of resource conservation and environmentally sustainable development. IUCN is unique in the sense that it may work as a trusted interface between the government bodies and the non-state actors on the above issues. IUCN have excellent field-based experience in dealing with land degradation, ecological restoration and EBA. It has working experience in ASAL regions of Kenya. IUCN has implemented ASAL management and forest landscape restoration in Kenya since 2008, in close partnership with governmental and non-governmental organizations working there.

43. IUCN in Kenya has chosen suitable institutions as partners in delivering the three components of the project. The State Department for Livestock (SDL), under the Ministry of Agriculture and Irrigation, a line ministry of the Government of Kenya, will execute the project on behalf of the ministry. SDL has experience in strengthening management of rangeland resources through the Regional Pastoral Livelihoods Resilience Project. Another partner is the National Drought Management Authority, which implements project-based interventions directly affecting household food security and livelihoods of more than ten million people. It provides a platform for long-term planning and action, as well as a mechanism for solid coordination across Government and with all other stakeholders in matters relating to drought management in Kenya together with adaptation and resilience-building in the ASALs. Conservation International is another partner that has experience in creating trust funds and mobilizing such funds towards conservation-related activities in various countries. In this project, Conservation International has come forward with co-finance in a bid to offer funds for the establishment of community-led micro-enterprises, so that they may participate effectively in the value chains.

44. The key approach to define the context of the project and the apparent solutions to address the key issues revolves around the engagement of local people in both the identification and implementation of adaptive responses. Solutions are mostly oriented towards community-based approaches, where institutional capacity-building will complement such activities to facilitate the EBA processes. The funding proposal shows evidence of intense stakeholder engagement and consultations, including from disadvantaged groups and women in the communities, during the identification of target areas (i.e. counties and the contiguous landscapes involving various counties) and in setting priorities among response options. Therefore, the robust design of the project may be considered as a reflection of strong community ownership.

45. The assessments of various investment criteria on country ownership suggest that the overall country ownership for the project is “high”.

1.6 Efficiency and effectiveness

Scale: Medium to high

46. Pasture management and crop agriculture are both micro-scale private activities in ASAL regions of Kenya. Yet, private investment is highly constrained in the ASALs, mostly due to high risks associated with frequent droughts. The project therefore requests USD 23.15 million from GCF as a grant, with co-financing of USD 11.39 million. The co-financing ratio appears on the higher side than most GCF financed projects.

47. The proposed grant from GCF will target activities that tend to have pay-offs that fully accrue only in the long-run or that are of a “public good” nature, and therefore cannot be addressed by the private sector. The costs of the activities identified are determined in such a way as to cover the minimum cost possible to achieve project objectives. Activities are related to cover the additional cost of responding to climate change threats in the target counties. It is therefore argued that the project is intrinsically efficient and cost-effective. The project design focuses on community-based rangeland management, which itself is a low-cost approach with minimal material interventions. Therefore, the project is cost efficient. Moreover, the overall delivery cost per beneficiary falls within the range where GCF financing has been granted on various similar projects in the recent past. Therefore, the project is cost-wise efficient.

48. Kenya incurs significant losses due to drought. The economic and financial analysis presented in the feasibility study document estimates that, in the absence of GCF financing, the expected economic losses due to droughts over the next 14 years in the target landscapes will be in the order of USD 578 million. This is the cost of not mobilizing GCF finances, which may be avoided if finances are made available. In the context of Kenya, it is estimated that for every early spending of USD 1 on resilience-building, the potential benefit may exceed USD 2.8. A resilience-building investment in rangelands in Kenya results in an increase in income of USD 450 per household, which translates into an average of USD 84 million per year of avoided “drought related losses” and “costs of humanitarian responses”. This means that, if losses emanating from even one severe drought were avoided following the investment, the saved cost could easily outweigh the total investment under this project.

49. The financial and economic analyses considered 12 per cent discount rate, which is acceptable for developing countries. If the project related benefits are assumed to be realized over the next 14 years, the net present value of the project is USD 11.81 million, with an internal rate of return of 31.15 per cent. Such numbers indicate that the project is on solid economic ground. With the same discount rate, if the project is considered to generate benefits for only 5 years (instead of 14 years), then the net present value still appears positive (USD 3.255 million) and the internal rate of return appears 20.98 per cent, which is still very high. In both scenarios, the potential benefits outweigh costs, which also indicate that the project is cost effective.

50. The project management appears to have strong foundations, involving most relevant national and international institutions with adequate relevant experience to deliver project components. A few of these institutions have developed ‘industry best practices’ in dealing with drought in rangelands and operating with funding schemes to promote micro-enterprises involving vulnerable communities. However, the ultimate success of these micro-enterprises will depend on effective coordination, capacity-building and guidance by experienced organizations, which will also require coordination among various actors and stakeholders. Accessing funds for the participation in value chains will not be the only criterion and a range of support services will have to be developed for the nascent micro-enterprises to succeed in their new ventures. Overall, the effectiveness and efficiency of the project appears to be “medium to high”.

II. Overall remarks from the independent Technical Advisory Panel

51. Based on the assessment as above, the iTAP recommends the project for approval by the Board.

52. The iTAP recommends that the accredited entity and the project management unit work closely with the executing entity on component 3 so that recipients of the proposed fund for value chain intermediaries will also receive proper training and other auxiliary support, as

needed. Effective implementation of component 3 will enable the community-run micro-enterprises to succeed in following a business model and become a source of inspiration for other similar micro-enterprises in the ASALs.

53. The iTAP also recommends that a baseline KAP study is conducted involving the members of the target communities, as a part of the monitoring framework. The study findings will be compared with KAP findings at the end of the project in order to understand progress made in community mobilization for achieving the objectives of the EBA project.

Response from the accredited entity to the independent Technical Advisory Panel's assessment (FP113)

Proposal name: TWENDE – Towards Ending Drought Emergencies: Ecosystem Based
Adaptation in Kenya’s Arid and Semi-Arid Rangelands

Accredited entity: International Union for Conservation of Nature (IUCN)

Impact potential
No comment.
Paradigm shift potential
No comment.
Sustainable development potential
No comment.
Needs of the recipient
No comment.
Country ownership
No comment.
Efficiency and effectiveness
No comment.
<i>Overall remarks from the independent Technical Advisory Panel:</i>
No comment.



ANNEX 6. GENDER ANALYSIS REPORT

**TWENDE* Towards Ending Drought Emergencies:
Ecosystem Based Adaptation in Kenya's Arid and Semi-
Arid Rangelands**

2018

*Twende is Swahili for "let's go". Ending Drought Emergencies is Kenya's flagship policy for the arid and semi-arid lands

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Abbreviations

ASAL	Arid and Semi-Arid Lands
C&E	Climate and Energy Advisory Ltd
CAHWs	Community-based Animal Health Workers
CCVI	Climate Change Variability Index
CEDAW	Convention on the Elimination of all forms of Discrimination against Women
CIDP	County Integrated Development Plans
CSOs	Civil Society Organizations
DRM	Disaster Risk Management
EbA	Ecosystem-based Adaptation
FAO	Food and Agriculture Organization
FGM	Female Genital Mutilation
GII	Gender Inequality Index
HARITA	Horn of Africa Risk Transfer for Adaptation Program
IFW	Insurance for Work
IPCC	Intergovernmental Panel on Climate Change
GCF	Green Climate Fund
HIV/ AIDS	Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome
HDI	Human Development Index
IFAD	International Fund for Agricultural Development
IUCN – ESARO	IUCN Eastern and Southern Africa Regional Office
KEWOPA	Kenya Women Parliamentarians Association
KEWOSA	Kenya Women Senators Association
KNHRC	Kenya National Human rights Commission
MoALF - SDL	Ministry of Agriculture, Livestock and Fisheries, State Department of Livestock
NDMA	National Drought Management Authority
NGEC	National Gender and Equality Commission
NGO	Non-Governmental Organization
NRM	Natural Resource Management
PSNP	Productive Safety Net Program
SDG	Sustainable Development Goal
SGBV	Sexual and Gender Based Violence
SIG	Special Interest Groups

UNCCD United Nation Convention to Combat Desertification
UNDP United Nations Development Program
UNEP United Nations Environment Program
WEF Women Enterprise Fund
WISP World Initiative for Sustainable Pastoralism
YDI Youth Development Index
YEDF Youth Enterprise Development Fund

Executive Summary

The Gender analysis in this report was carried out for the initially identified four project landscapes namely Moyale-Wajir North Banisa Hills; Sabarwawa; Mid Tana River; and Chyulu Hills. These landscapes were reduced after further consultations and the Moyale- Banisa Hills landscape dropped and two other landscapes were combined. The project will therefore focus on two landscapes namely 1) the Mid Tana River and Sabarwawa landscapes located in the arid zone and the 2) Chyulu Hills landscape located in the semi-arid zone. Much of the analysis in this report refers to the original 4 landscapes but the analysis in the report to the project proposal as now described remains relevant.

Gender analysis is a systematic analytical process used to identify, understand, and describe gender differences and the relevance of gender roles and power dynamics in a project or programme. This analysis employed the Six Domains of Gender Analysis Framework Approach, namely: access; knowledge, beliefs and perceptions; practices and participation; time and space; legal rights and status; power and decision making. The Harvard Gender Analysis Framework was also used to explain how men, women, boys and girls spend a typical 24-hour day, while the Rani Parker's Gender Analysis Matrix was used to gather insight into power relations and interests based on gender roles. Specific activities undertaken included a desk review of relevant literature, and stakeholder consultations. Ethical considerations were applied during the exercise. Overall, the collection and analysis of sex-disaggregated information is critical in order to understand gender differences and meet the different needs of men and women.

Women in drylands face numerous gender inequalities, that include restricted access to productive assets; minimal land ownership; reduced access to credit as compared to men; glaring differences in workload difference between men and women, and lack of power and decision to spend income. Further, female-headed households face greater inequalities, with most being facing acute poverty. Additional challenges faced by women in drylands include uneven access to health, education and social protection services; uneven access to climate change responses and disaster risk reduction; uneven access to markets and producer groups; lack of recognition of women's roles, knowledge and representation; and neglect of dryland women's traditional knowledge. Specific actions that may be taken to address the gender inequalities and challenges include education as a long-term driver of livelihood diversification; improvement in women's access to health services; gender equitable social protection services; improved access to risk management and insurance products; improved access to markets for crops and processing; and capacity strengthening through CSOs.

The socio-economic background of the project area was explored, with key socio-economic indicators presented, namely: population size and composition; population type; population growth rate; literacy; housing; land and land use; land tenure system; self-help, women and youth groups; crops produced; livestock bred; fishing activities; industry; cultural practices; poverty; Human Development Index (HDI); and Youth Development Index (YDI). The purpose of presenting the socio-economic background of the project area is to enable an appreciation of the socio-cultural fabric that community members live, and the effects of this on their livelihoods and day-to-day activities.

The Gender Inequality Index (GII), which reflects gender-based disadvantage in the areas of reproductive health, empowerment and the labour market, was used to demonstrate gender issues in the project area. Kenya has an overall GII of 0.651. Almost all the Counties in the project area demonstrated higher gender inequality than the national average, except Isiolo, Meru, Tharaka Nithi and Kitui Counties. Most of the high GIIs were attributed to socio-cultural factors. GII scores were not available for Makueni, Kajiado and Taita Taveta Counties.

In most of the project area, women are involved in most household chores and activities, while men primarily take care of mature livestock and participate in leadership-related activities. Girls support their mothers and female relatives in household chores and activities, while boys similarly support their fathers and male relatives in taking care of livestock. With regard to access and control of productive resources, women in the project area have access to resources that include land, water, livestock (milking), crops, shelter, farming tools and some economic resources. However, these same resources are controlled by men.

Despite the above situation, women in Kenya are valued and protected through the legal and administrative framework, such as the Constitution, and Kenya's ratification of international instruments that promote gender equity and equality. Various institutions have also been established by the Government of Kenya to promote gender equality and equity, as well as empowerment of both men and women in the development process. These include the Directorate of Gender in the Ministry of Devolution and Planning, National Gender and Equality Commission (NGEC), Kenya National Human Rights Commission (KNHRC) and the Anti-Female Genital Mutilation (FGM) Board. Civil Society Organizations (CSOs), private sector and religious organizations are also responsible for both implementation and act as accountability bodies.

Within the project area, resilience is demonstrated through traditional early warning systems, county information sharing forums, reforestation, promotion of rainwater harvesting, use of drought-resistant seed varieties for food, destocking, and awareness and education, among other measures. Pre-established county level funds could prove to be versatile mechanisms through which to channel dryland projects funding to support community driven development and resilience building priorities. Arrangements that increase women's and men's authority over resources should be promoted, and indigenous knowledge valued.

Men control access to most productive assets in Kenya, with dryland communities in Kenya sharing a patriarchal culture. For dryland conservation, activities should include both local men and women as key stakeholders. Access to credit and markets has been identified as a key constraint in improving economic productivity, therefore improving women's access to credit and opening up markets for products is an important area of focus. Any conservation activity that might result in girls having to go farther to fetch water or firewood or that would increase the workload of women and girls in a household may negatively impact on the schooling of girls. For this project working with women in polygynous unions may require first working with the husbands to gain agreement on any proposed activities. The project should target men as "key change agents".

The gender analysis report generated a Gender Action Plan in section 19. This provides entry points for gender-responsive actions to be taken under each of the activity areas of the Twende project. The plan will be refined in the inception phase of the project to more effectively support youth programming and at that point will become a Gender and Youth Action plan in the inception phase of the project. To avoid developing an unwieldy system three or four of the most critical gender responsive indicators identified here will be incorporated into the detailed M&E plan to be developed at the start of implementation, where baseline data will be incorporated. All data collected during implementation of the project will be gender disaggregated and subjected to the requisite data quality assessment process.

A gender task group will be established early in the project drawn from the different institutions of the project. IUCN will lead that task group that will be responsible for implementing the GAP. Specific support will be provided by IUCN's Global Gender Office to the gender task group.

1 Introduction

The goal of the proposed project is to contribute to ending recurring national drought emergencies in Kenya. This will be achieved, in part, by building the resilience of communities and ecosystems to future climate shocks and stresses, taking into consideration the unique conditions, challenges and opportunities of dry rangelands. These include: climate uncertainty, ecological fragility, seasonal and annual water deficits, historical marginalization, low human capital, large-scale commons, new (but rapidly developing) devolved public structures, and strong cultural grass-roots natural resource management institutions and practices.

1.1 Gender Analysis in the Context of the Proposed Project

Gender analysis is a systematic analytical process used to identify, understand, and describe gender differences and the relevance of gender roles and power dynamics in a project or programme. This involves examining the differential impacts of development policies and programs on women and men, and may include the collection of sex-disaggregated or gender-sensitive data. Secondly, it examines the different roles, rights, and opportunities of men and women and relations between them (USAID, 2011).

This analysis will employ the Six Domains of Gender Analysis Framework Approach namely: **Access, Knowledge, beliefs and perceptions, Practices and participation, time and space, legal rights and status, power and decision making.**

1.1.1 Access

This domain as used in this gender analysis looks at a person's or community's ability to use the necessary resources to be a fully active and productive member of the society-socially, economically, and politically. It will look at access to resources, income, services, employment, information, and benefits.

1.1.2 Knowledge, Beliefs, and Perception

This domain will look at knowledge that men and women possess; the beliefs that shape gender identities and behavior, and the different perceptions that guide people's understanding of their lives, depending upon their gender identity.

1.1.3 Practices and participation

This domain will look at peoples' behaviors and actions in terms of what they actually do and how this varies by gender roles and responsibilities. The questions include not only current patterns of action, but also the ways in which men and women may engage differently in development activities. Some of these types of action include attendance at meetings and training courses, and accepting or seeking out services. Their participation can be both active and passive.

1.1.4 Time and Space

This domain looks at and recognizes gender differences in the availability and allocation of time and the locations in which time is spent. It will analyse the division of both productive and reproductive labor, identification of how time is spent during the day (weekly, monthly or yearly, and in different seasons); and determines how men and women each contribute to the welfare of the family, community, and society. The overall objective of this domain is to determine how men and women spend their time and what implications their time commitments have on their availability for program activities.

1.1.5 Legal rights and status

This domain will assess how people are regarded and treated by customary legal codes, formal legal codes, and judicial systems. The domain encompasses legal documentation such as identification cards, voter registration, and property titles. Additionally, the domain includes the right to inheritance, right to title deeds, employment, atonement of wrongs, and legal representation.

1.1.6 Power and Decision Making

This domain pertains to the ability of people to decide, influence, control, and enforce personal and governmental power. It will assess community's capacity to make decisions freely, and to exercise power over one's body, within an individual's household, community, municipality, and state. This domain also details the capacity of adults to make household and individual economic decisions including the use of household and individual economic resources, income, and their choice of employment.

2 METHODOLOGY

Gender analysis requires the collecting and analysing sex-disaggregated information in order to understand gender differences. Gender analysis explores gender differences so policies, programs and projects can identify and meet the different needs of men and women. It also facilitates the strategic use of the distinct knowledge and skills women and men possess¹.

A gender analysis was proposed and carried out in order to:

- Design and implement the project in a way that will close gender inequality gaps so that both women and men benefit from development and are equitably empowered.
- Understand how gender roles, responsibilities and inequalities affect the project's effectiveness and the sustainability of its results.

The analysis adopted the gender analysis framework approach elaborated in the previous chapter. Three (3) key steps were employed at different stages of the process namely:

- **Preparing for the gender study-** This involved developing the scope of work and work plan, assembling the team, clarifying stakeholder expectations, acquiring necessary resources, conducting a desk review and selecting appropriate tools and methodologies.
- **Clarifying client expectations-** This involved taking time to understand the client and proposal needs for this study and expectations. Initial interviews were organised with IUCN senior technical team(s) and directors. These interviews were arranged at the beginning and throughout the study period to clarify any outstanding issues and incorporate input from the client team(s).
- Overall this provided us with an opportunity to make sure you we are clear on required deliverables and timeframes.
- **Preparation of scope of work and scheduling of timelines-** Once the team was clear on priorities and expectations, a schedule of timelines and intended deliverables was developed jointly with IUCN and a basis for regular communication and follow-up established on both sides. Regular check-ins were done both by phone, email and face to face conversations.
- **Conducting a desk review-** This involved reviewing current literature to understand the target population and the context in which the project proposal is operating. The Desk review helped to gather sex-disaggregated, qualitative and quantitative background information for the four (4) priority landscapes and counties as base information to complement the results and findings of later participatory processes and rather avoid repeating what is already known. Some of the desk review documents included: statistics reports from government departments and

¹ *GENDER Analysis, Assessment and Audit Manual & Toolkit For use by ACDI/VOCA staff and consultants in completing gender studies*

ministries, population dynamic studies from county integrated development plans (CIDPs), demographic and health surveys), government policy documents, third-party gender studies, qualitative reports and quantitative surveys from the World Bank, United Nations, and IUCN dryland resource organisational documents.

Table 1: Type of documents reviewed and their importance

Type of Study	What type of docs were reviewed	How the documents helped
Gender analysis study	Program, project or organizational documents: work plans, program description, baseline study report, barrier analysis report, monitoring and evaluation plan and other start-up reports	Understanding project context and whether/how gender considerations have been integrated into planning
	Quantitative data: demographic and health surveys, and data from the World Bank, UN and government	Quantitative, contextual information on gender dynamics within the country
	Third-party gender studies: gender analyses, assessments or research papers.	Qualitative, contextual information on gender dynamics within the counties and priority landscapes

Conducting field work- Fieldwork is one of the most significant stages of a gender study². Several field work methodologies were used in our gender study namely: focus groups discussions, informant Interviews and quantitative surveys. These tools helped to gain information on specific topics and themes.

Triangulation was also done to ensure cross-checking information from three or more different perspectives to ensure information for accuracy. A number of quantitative tools were employed in the study:

- 1) **Focus group discussions-** This involved gathering small groups of participants and community members together to discuss ideas, beliefs, perceptions and experiences. The focus groups provided information relating to **activity schedules, access and control of resources and opportunities and constraints** related to gender issues in the different counties. The focus groups were conducted using different groups from numerous regions, a wide age-range, with Men-only, with women-only, and in mixed groups of men and women together. However, some topics could only be discussed with separate groups of women and men. This ensured that groups of the “voiceless” heard. Most communities interviewed have a dominant patriarchal society and mixing them with women would suppress full participation and airing of views.
- 2) **Informant interviews-** Informant interviews were carried out with various groups across selected counties and priority landscapes. These were semi-structured. They allowed the interviewer to ask additional follow-up questions as respondents participated in the discussion. It allowed the interviewer to remain focused on the objectives of the interview and to use the interview time efficiently, while allowing questions to be asked about unforeseen issues and topics that arose in the discussion. A core set of semi-structured interview questions was developed in advance. The questions were open-ended and allowed interviewees the opportunity to answer at their own pace thus helping to control, probe, direct and gather information as accurately.

² *GENDER Analysis, Assessment and Audit Manual & Toolkit For use by ACDI/VOCA staff and consultants in completing gender studies*

- 3) **Stakeholder consultations-** This involved organising workshop stakeholder meetings with key persons and professionals at all the targeted thirteen counties plus IUCN and other government representatives. The meetings discussed and came up with key priority areas for intervention. Stakeholder consultation and meeting reports were developed and shared with IUCN and partners.
- 4) **Note-taking and recording-**All fieldwork was properly documented and recorded to assist in analysing data and meeting gender study deliverables. The study used assistant note takers to sit in on fieldwork sessions.
- 5) **Constraints analysis-** The analysis served to identify gender-based constraints and opportunities that have the potential to either impede or facilitate (also referred to as gender determinants of health) achievement of project objectives. For example, in many places, women are constrained in receiving skilled care in delivery because they do not have power to make autonomous or joint decisions about their health care. The constraints analysis begins with a process to uncover gender-based constraints by identifying the condition of inequality. The second step was to identify the gender-based factors that contribute to the condition of inequality. The constraint was articulated by linking the constraining factors to the outcome

2.1 Ethical considerations

A number of ethical considerations were outlined and considered when conducting the gender study:

- Respect for Informants- The project team and interviewers demonstrated respect for participants by gaining informed consent from them before beginning fieldwork.
 - Minimising harm- Project team made sure that participants are protected and adhered to confidentiality in the reporting and sharing of data.
 - Maximising benefits- The project team asked participants to discuss attitudes, beliefs and experiences as important processes of self-reflection and empowerment.
 - Managing expectations- During the gender study, it was prudent to manage expectations of participants by giving realistic estimates of what participants should expect and when resources will be implemented.
- 1) **Analysing and validating gender field data-** Data analysis was carried out using activity schedules, access and control tables, constraints and opportunities tables to clearly bring out the differentiated gender roles. Symbols were used to fill out activity chart and to visualize data and compare the different groups' responses from the same county and landscape priority site.
 - 2) **Developing findings & recommendations-** The gender analysis identified actions that are most important to highlight as priority recommendations. Overall, findings were general whilst recommendations should be specific, action-oriented and realistic. Recommendations focused less on what to do, and more on how to do it. In devising our recommendations, the gender analysis actioned the following:
 - Developed a Logical Results framework and associated indicators that could be incorporated into program/project planning and activity design. A logical framework was developed with clear gender-focussed SMART indicators for the different outcomes, outputs and project activities
 - Identified supportive strategies and resources by county governments, national government, IUCN and other partners.
 - Developed specific activities related to gender equality and equity that should be incorporated within the program/project's current activities to achieve greater equality and empowerment for women.

3 Background

The project is proposed to be located in eleven of Kenya's Arid and Semi-Arid (ASAL) counties: *Garissa, Tana River, Isiolo, Marsabit, Samburu, Kajiado, Kitui, Makueni, Tharaka- Nithi, Meru and Taita Taveta*. The focus of the project will be on 2 large scale drought reserves that cut across county boundaries to coordinate movement of livestock across different counties. The priority landscapes are:

1. **Mid Tana river/ Sabarwawa**
2. **Chyulu Hills**

The project will use an Ecosystem-based Adaptation (EbA) approach with emphasis on integration of restoration and sustainable land management options between natural resource sectors - rangelands, agriculture, forests, and water - as well as mainstreaming rangeland and forest concerns into other sectors. The program will provide science and policy guidance and dialogue mechanisms to the latter sectors to mitigate the impact of large infrastructure on dry rangeland social and ecological systems. The project area is shown in the map below.

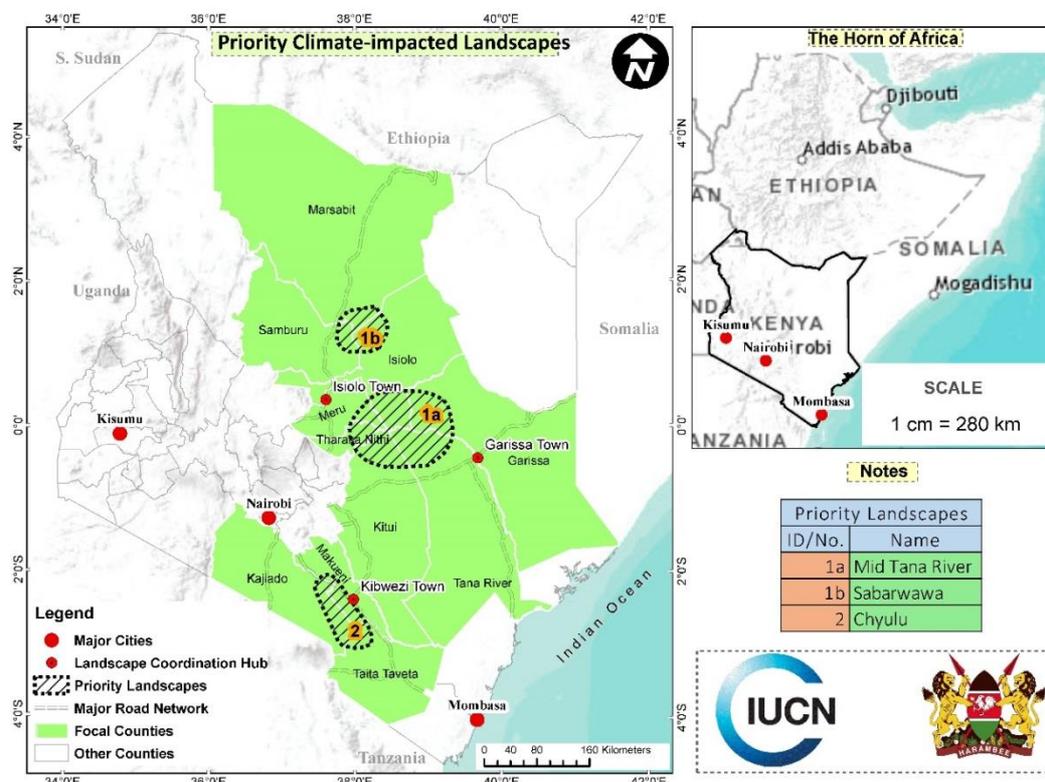


Figure 3:1 Priority Landscapes

3.1 Description of the Drylands of Kenya and Project Area

Drylands – commonly referred to Arid and Semi-arid regions (ASALs) - in Kenya make up to 80% of the country's total land surface and are mainly found in the Northern, Eastern and Rift Valley regions. This region supports approximately 36% of Kenya's population with pastoralists and rangeland users dominating the region. The drylands also support nearly 75% of wildlife population and consequently account for around 80% of the country's eco-tourism interests. However, despite the significant resource base, people of the drylands regions are relatively poorer with fewer social services and less infrastructure. Drought is common in these regions and its prolonged nature has been attributed to climate change. Livestock production accounts for 24% of agricultural outputs in Kenya with over 70% of the countries livestock coming from the ASALs region. Despite this, drylands receive insufficient investments; in terms of policy, financing, incentives and under-recognition of their potential value in poverty reduction and national development.

4 Existing Gender Inequalities facing women in drylands

4.1 Gender Inequalities facing women in drylands

4.1.1 Access to productive assets

Men control access to most productive assets in Kenya (World Bank 2003). The main ethnic groups in Kenya have a patriarchal culture in which men own either formally or informally the key productive assets such as land, livestock and businesses. A woman, for example, may milk the family cow and sell the milk products, but she could not sell the cow itself because it is “owned” by her husband.

4.1.2 Women land ownership

Only 3% of the land is owned by women (CEDAW 2011) in Kenya. With land being the primary asset in Kenya and 70% of livelihoods in agriculture and rigid inheritance traditions, means that men own almost all land in Kenya. In 2010, it became legal for women to have their name on a land deed, but women’s access to land is still controlled by men.

4.1.3 Social stipulations regarding land inheritance

In Kenya, social stipulations prohibit a woman inheriting land (CEDAW 2011). While women can legally inherit land under the 2010 constitution, in practice it is forbidden and rare. Among Kenya’s 47 counties, majority of people view women inheriting property as socially unacceptable. The general argument is that women inheriting land is that she will have access to land in her place of marriage and that for her to inherit land in her place of birth it means she has access to double portions. This is perceived to be unfair to her male siblings. This assumes a woman will marry (5% of Kenyan women never do), will not be widowed or divorced (10% of Kenyan women are) and that access and ownership are equal (which they clearly are not) (CEDAW 2011).

4.1.4 Access to credit by Women as compared to Men

Women have less access to credit than men (CEDAW 2011). This is because women rarely have land deeds, meaning they often lack collateral for a formal loan. Access to banking has improved markedly in recent years, and all the major commercial banks in Kenya now have at least one financial credit or mortgage product targeting women. The government has initiated several programs to provide women with credit. The traditional ‘merry-go-rounds’ remain a primary form of credit access for women in most remote areas of Kenya. It works by women group members pooling resources, with each member consecutively being able to borrow the pooled balance.

4.1.5 Time and space

One of the greatest gender difference in Kenya is in the workload difference between of men and women. Data from the agriculture sector shows that women do 80% of the food production, 50% of cash crop production, 80% of the food storage and transport from farm to the home, 90% of weeding, and 60% of the harvesting and marketing of crops (AfDB 2007). Women have simultaneous and competing demands for productive (market) and reproductive (household) labor time. Time poverty and income poverty often reinforce each other. This means any activity that adds to a women’s time burden may negatively impact other areas of her life. Avoiding such activities, reducing them to a minimum, or mitigating them with offsets should be the hierarchy. Understanding season calendars and daily time use are critical for designing local activities and avoid deepening the time poverty of women.

4.1.6 Power and decision to spend income

42% of women who earn cash income say they mainly decide how to spend it (DHS 2010). Many women can decide on their own how to spend money they earn, but for almost half the women who earn cash income (49%), their spending decisions are made jointly with the husband. For 9% of women with cash income, the husband mainly decides how to spend it. In light of this aspect, women in Kenya invest more of their cash income in family needs and children's education than men do.

4.1.7 Female headed households face greater inequalities

In Kenya, 29% of households are female-headed (DHS 2010). Poverty among female headed households is particularly acute compared to male headed households. This is because they face greater time and mobility constraints than do male heads or other women. The majority of female-headed households in Kenya are below the poverty line. Including female-headed households in this project can help ensure project benefits are distributed to both poor and better off households.

5 Gender Challenges facing women in drylands

Women living in drylands face a myriad of challenges in drylands namely: Unequal distribution of resources and access to services, uneven distribution of land and natural resource rights, uneven livestock ownership and access to related livestock products, uneven access to health, education and social protection, uneven access to animal health care services and uneven access to markets and neglect of women’s traditional knowledge. These challenges are expounded in more detail below:



Figure 5:2 Challenges facing women in drylands

Source: UNCCD (Achieving dryland women empowerment, 2015)

5.1 Unequal distribution of resources and access to services

With rising uncertainty caused by climate and other rural stressors, households need resources to cope and adapt to shocks and stresses. Women in drylands tend to have less access to these necessary resources for adaptation i.e land for cultivation, crops and livestock.

5.2 Uneven distribution of land and natural resource rights

Land rights are important for the resilience of women and their related communities. Women tend to have access to and control of smaller parcels of land compared to their male counterparts. Most women have access rights to land but do not have absolute control rights over land. In drylands, natural resource and land resource rights can be as important as women’s livelihoods.

5.3 Uneven livestock ownership and access to related products

In drylands, livestock ownership and access to associated products is very important for ensuring survival, resilience and livelihoods of women. Livestock ownership is gendered in nature in the drylands. Women and girls face an increase in work burden when men have to graze livestock in more distant communal areas or are forced to find other employment (formal or informal) to feed the family. While access to livestock for pastoralist women may be more restricted than that of men, compared to other natural resources, they do have livestock rights – often for smaller stock – and rights over associated products such as milk and hides. A key opportunity that exists here is that women are also livestock managers (Kipuri and Ridgewell, 2008).

5.4 Uneven access to health, education and social protection services

A key challenge facing drylands is ineffective delivery of both curative and preventative health services to dryland communities especially women. This is compounded by the fact that pastoralist women face particular challenges due to their tasks in collecting water and firewood, cooking using smoky fuels, which can cause stress to the body (Flintan, 2008). The designs of current education systems are inappropriate for nomadic groups and schools are not sufficiently secure and decent (see Reidy, 2012). Women and girls experience long daily activity schedules, biased access and control of resources making learning and education difficult. Social protection programmes in dryland zones need to accommodate the diverse livelihood strategies of pastoralists, especially with respect to non-mobility of women and them taking care of elderly ones at household level (Morton and Kerven, 2013).

5.5 Uneven access to climate change responses and disaster risk reduction measures

Pastoralists and other dryland communities use limited seasonal forecast information for understanding climate scenarios for agricultural development, in coordinating input and credit supply, food crisis management, trade and agricultural insurance (Dasgupta et al, 2014). It is important to design gender-specific climate services in drylands. Gender specific climate services targeting women farmers require a forecast of rainfall cessation, not onset, and that the choice of communication channels must relate to socio-cultural realities. Overall, location- and gender-specific needs should inform the design of new climate services in order to increase resilience (CGIAR CCA FS, 2015).

5.6 Uneven access to animal health care services

Animal health services are mainly received by men when receiving training and replacement stock. Most times information is shared through male dominated committees or livestock producer groups. There is limited sharing of animal health services information with their wives. There is need for women focussed training on small ruminant and poultry targeting women, training of female veterinarians to take care of young livestock and increased levels of literacy through adult education for women to participate in animal health services at the household level.

5.7 Uneven access to markets and producer groups

Dryland women tend to have more limited access to markets than their male counterparts. This is mainly because of: limited access to productive assets, such as livestock and land; low literacy levels; lack of expertise in running small businesses; lack of access to credit because of a lack of collateral; limited experience in capturing value in value chains; limited access to markets; a lack of time for income-generating activities; limited self-confidence; lack of access to family and community decision making, including in development projects (Rota et al, 2012). Specifically, dryland women have limited access to markets for animals and products due to numerous obstacles namely:

- A relative lack of market contacts and information
- Limited participation in livestock cooperatives reducing their influence
- Limited access to mobile phones which are essential for livestock trading
- Higher illiteracy levels, lack of experience and limited financial skills
- Lower prices offered by traders who know they have fewer options due to their limited mobility; Limited access to credit
- Need to have a husband's permission to make livestock sales
- A portion of the income being retained by male relatives when they sell a woman's animal or products
- Milk checks by private sector dairy collection plants usually consult heads of household
- Government regulations on informal milk sales and other foods of animal origin Miller,

2011).

5.8 Lack of recognition of women's roles, knowledge and barriers to Gender roles

Traditional gender norms often mean that women have heavier workloads, as well as the resultant unequal access to and control of resources. In most dryland communities, there is a lack of recognition of women as rights holders and members of a community group, who are entitled to land and natural resource rights and decision-making powers. There are also other specific barriers which women face, such as sexual and gender-based violence and harmful practices (Miller, 2011).

5.9 Education as a long-term driver of livelihood diversification

Dryland girls and women tend to have much less access to education. For pastoralists, especially girls, a combination of adult education, community and locally relevant broadcast programmes and participatory face-to-face teaching targeting the household is needed (Karli and Dyer, 2009).

5.10 Neglect of dryland women's traditional knowledge

In general, pastoralists of both sexes have extensive knowledge of livestock and production i.e. tending animals, e.g. milking or caring for sick animals (Flintan, 2008). In the past, women's traditional knowledge was often overlooked in analysing agricultural and livestock-related indigenous knowledge. While recognition of the gendered nature of indigenous knowledge and women's knowledge has grown in recent years, further recognition is still needed. Currently, most institutions do not accord much value to women's traditional knowledge and role in dryland resilience (Miller, 2011).

6 Action to address Gender Inequalities and Challenges

1. It is important for the project to include and target female headed households so as to ensure project benefits are distributed to both poor and better off households. Providing offsets greater than the opportunity costs of a new activity is critical for female-headed households
2. Improving drinking water quality and quantity may have direct benefits to women and girls.
3. Sensitivity to the traditional divisions of labor may help dryland initiatives to be more socially acceptable by both men and women.
4. It is fundamentally critical to understand season calendars and daily time use for designing local activities that will not deepen the time poverty of women within a project.
5. Activities which include the use of productive resources like land or livestock should include men and women in decision making so as to better understand and improve access and control between men and women of resources.
6. The male dominance of land ownership will continue for some time hence it is important to include both local men and women as key stakeholders even though women may have no legal title to the land in question.
7. It is important to improve women's access to agricultural inputs and integrate access to credit elements in dry land projects so as to improve women's economic productivity.
8. Providing support for the Ministry of Gender, Child and Social Development's program to eliminate female genital cutting may be an option that would improve the health of girls locally and through this project

6.1 Improving dryland women's access to health services to underpin dryland resilience

Improving health services for women in dryland zones can improve household resilience due to their critical role as caregivers and reproduction. There is also need for inclusion of on nutrition education in pastoral women's health and indeed that of the wider family as women tend to pay greater attention to assuring family needs are met; also important is a package of interventions aimed at improving the livelihood systems of the household (Flintan, 2008).

6.2 Improving gender-equitable social protection services for drylands resilience

There is need to understand the gendered nature of the risks women and men face, and how gender dynamics shape responses while improving their opportunities through training and increasing their access to financial resources, such as micro-credit and micro-finance (World Bank, 2012).

Social protection schemes have shown great promise in supporting vulnerable groups in dryland areas especially women. For example, the Productive Safety Net Program (PSNP) of the Ethiopian government funded by the World Bank is a promising example of a large-scale safety net programme, which has strengthened household and environmental resilience in a gender-equitable manner.

6.3 Improving women's access to risk management and insurance products

A key avenue for improving women's resilience to climate variability and shocks is through investment in their access to and uptake of risk management and insurance products. For example, the Horn of

Africa Risk Transfer for Adaptation (HARITA) Programme in Tigray state, northern Ethiopia, strengthens poor farmers' and herders' resilience by increasing their capacity to manage weather- and livestock-related risks through improved resource management, insurance, and micro-credit (World Bank, 2012).

6.4 Improving Women's access to animal health services

Improving animal health is important for pastoralists and agro-pastoralists. In improving women access to animal health services there is need to ensure that more female Community based Animal Health Workers (CAHWs) are trained. Promising examples exist of collaboration between human and veterinary medicine which to reach women in remote locations including pastoralists.

6.5 Improving women's access to livestock markets and development

Dryland women's empowerment can be supported by linking women to markets for livestock-related products to promote social and economic empowerment. In pastoralist societies, although livestock assets are not equitably distributed, compared to other productive resources, women do own and have rights to livestock and associated products. Taking advantage of this critical right would go a long way to engendering access to livestock markets (Miller, 2011). Further, this can be strengthened through creation of women agricultural and market groups that enhance leadership and market skills (Miller, 2011).

6.6 Improving dryland women's access to markets for crops and processing

Promoting income generation for pastoralist women through value addition of dryland crops and processing can increase their socio-economic position in the household and sometimes in the wider community (IFAD, 2009). Investment in women producers makes commercial sense for companies that operate at both the low-value, high volume end of the market (Chan, 2011).

6.7 Improving support for women's participation in alternative livelihoods and their ability to capture value

Investment is also needed to improve women's participation in alternative livelihoods, to ensure that their rights and interests are recognized. For example, there is significant potential for enhancing the collection and marketing of natural products from dryland areas i.e. gum arabica. This needs to have good quality support to enable women's inclusion and their ability to benefit, without their rights being neglected (Morton and Keven, 2013)

6.8 Improving our understanding of gender relations to inform policy and programming through the devolution structure-county governments

There is increasing support for gender equality around the world, but also investment and political will is important, and understanding how change might happen or could be facilitated is important. Through the county governments and devolution process, dryland counties have unique opportunity to facilitate women's empowerment through affirmative action at the county, sub-county and ward levels.

6.9 Capacity strengthening actions through CSOs

Capacity strengthening actions are required to strengthen the resilience of drylands and to empower women.

- CSOs to support gender justice involving whole communities, men, and local leaders, to challenge discriminatory social norms and harmful practices.
- CSOs, academic institutions and the media to increase awareness of gender, pastoralist, and environmental sustainability issues in the drylands.
- This awareness raising should seek to counter the negative stereotypes of dryland areas to culturally revalue them and women's knowledge and equal rights in particular

7 Socio-economic Background of the Project Area

The Gender analysis in this report was carried out for the initially identified four project landscapes namely Moyale-Wajir North Banisa Hills; Sabarwawa; Mid Tana River; and Chyulu Hills. These landscapes were reduced after further consultations and the Moyale- Banisa Hills landscape dropped and two other landscapes were combined. The project will therefore focus on two landscapes namely 1) the Mid Tana River and Sabarwawa landscapes located in the arid zone and the 2) Chyulu Hills landscape located in the semi-arid zone. Much of the analysis in this report refers to the original 4 landscapes but the analysis in the report to the project proposal as now described remains relevant.

The purpose of presenting the socio-economic background of the project area is to enable an appreciation of the socio-cultural fabric that community members live, and the effects of this on their livelihoods and day-to-day activities.

7.1 Moyale-Wajir North Banisa Hills Landscape Site

The above landscape site occurs in three (3) Counties, namely: Marsabit, Wajir and Mandera. The key socio-economic indicators for each County are presented below:

- Population size and composition
- Population type
- Population growth rate
- Literacy
- Housing
- Land and land use
- Land tenure system
- Self-help, women and youth groups
- Crops produced
- Livestock bred
- Fishing activities
- Industry
- Cultural practices
- Poverty
- Human Development Index (HDI)
- Youth Development Index (YDI)

Table 2: Moyale-Wajir North Banisa Hills Landscape Site

No.	Pattern	Counties		
		Marsabit	Wajir	Mandera
1	Population Size & Composition	316,206 people for year 2012:164,105 male & 152,101 female (2009 Population & Housing Census)	727,965 people: 55% male & 45% female (2009 Population & Housing Census)	1,025, 756 people for 55% male & 45% Female (2009 population & housing Census)
2	Population Type	Over 67.8% of population is below 24 years. This is an indicator of a growing population. The county expects greater pressure on resources in future if the trend continues	84.2% of population is below 29 years (youthful population)	67 % of the age cohort 0– 19 years of the total population is composed of infants and the school going-age.
3	Population Growth Rate	2.75% per annum	3.22% per annum	2.67%
4	Literacy	Literacy 4.1%: Male-4.9% and Female-3.4%	Literacy 4.5%: Male-7.4% and Female-1.5%.	Literacy 4.8%: Male-7.2% and Female-2.4%.
6.	Health Issues	Sanitation-Pit latrine coverage accounts for 34.3% of population Morbidity- Most prevalent disease is Malaria/fever accounting for 44.8% of the population. Average morbidity for the county is 21.4 percent Immunization coverage is 63.6 % Contraceptive acceptance is low at 8.3 per cent due to cultural and religious beliefs. HIV prevalence is at 1.8%	The most prevalent disease is Malaria at 54.8%. The morbidity rate is 16.3% with men and women accounting for 14.4 per cent and 18.3 per cent respectively. Only 48% of the children aged 12-23 months received vaccinations. Access to family planning very low with only 4% of married women using modern methods	Sanitation-the main types of toilet facilities in the county are pit latrines (38.9%), uncovered pit latrines (34.8%). Two most prevalent diseases are Upper Respiratory Tract Infection (URTI), Malaria. Vaccination coverage is very low at 7.6%. Only 4% of married women use modern methods of family planning

No.	Pattern	Counties		
		Marsabit	Wajir	Mandera
7.	Food security/ Nutritional security	Chronic malnutrition is prevalent with 31% of the children under five years malnourished while 40 % per cent are stunted.	The nutrition status is poor, 35% of children under age five in the county are stunted. 35 per cent is high and there is need for deliberate efforts to reduce this figure.	Chronic malnutrition is prevalent with 31.8% of children (6-59 months) being chronically undernourished,
8	Land and Land Use	Most of the land in the county is owned communally. Less than 1% of land is registered in the county. Agriculture and rural development contributes to approximately 60 % of the county's economy.	Entire categorized as Trust Land apart from a small percentage of the total area occupied by townships.	Land is communally owned in the county. The main challenge in the county is land degradation resulting in some areas rendered unsuitable for crop production. The available land for agriculture has not been fully exploited due to resource constraints.
9	Land Tenure System	Most land owned communally or by group ranches. Women have less control over land resources	Most land owned communally or by group ranches. Women have less control over land resources	Most land owned communally. Women have less control over land resources.
10	Self Help, Women & Youth Groups	480 self-help groups, 310 women groups & 504 youth groups in the County. Activities include goat keeping, bee keeping, poultry-rearing & small micro enterprises.	A total of 70 SHGs, 50 (CBOs), 700 women groups, 900 youth groups and 146 Farmers groups. Youth groups are involved in small businesses in towns and are mostly funded by Youth Enterprise Development Fund (YEDF). Women are engaged in selling groceries and food kiosks	There are 940 SHGs groups, 577 women groups, 39 groups for Persons with Disabilities, 143 CBO's and 645 youth groups. They are involved in farm produce marketing, Jua Kali, Building and construction and consumer business.

No.	Pattern	Counties		
		Marsabit	Wajir	Mandera
11	Crops produced	Vegetables & fruits, maize, teff, beans & millet. Crop trees include oranges, avocados, mangoes & miraa.	Practised in depressions & along drainage lines. More reliance on livestock products (milk & meat).	Maize, sorghum, cowpeas, simsim, vegetables (Sukuma wiki, cow peas, onions, spinach, tomatoes, capsicum) and fruits (mangoes, bananas, water melons)
12	Housing	Most (91.3%) of houses have earth floors & a majority (37.5% are roofed with 'makuti' (palm leaves).	75.9% of houses are grass straw walled, 91.5% have earth floors & 86.2% are grass thatched. (Collapsible mobile Somali Herio (made of grass/palm mats and withies)	Mainly traditional huts ('manyatta') used by 73.8% of households, while walls are mainly grass/ straw and mud/ wood. {Collapsible mobile Somali Herio (made of grass/palm mats and withies)}
13	Livestock bred	Cattle, goats, sheep, camels, donkeys & chicken + bee keeping.	Cattle (Borana & dairy crosses), sheep (mainly Toggenberg), camels & donkeys. Poultry keeping in Wajir Town.	Goats (galla breeds), cattle (boran breeds), camels (Somali breeds), sheep (Somali black head breeds), donkeys (Somali breeds) and chicken (indigenous breeds).
14	Fishing activities	Mainly in Lake Turkana, for tilapia, labeo and Nile Perch.	Fish farming is restricted to artificial ponds from seasonal rivers and boreholes with majority of fish being Tilapia	River Daua covers around 150Km along the border. Mud fish is mostly reared in River Daua
15	Industry	Mining of blue quartz and mica is done at South Horr in Laisamis Constituency. County has high potential for manufacturing blue quartz and exploration of petroleum.	There exists small scale industries in lime production, gums & resins, juice production and hides & skins tannery. The gum and resin factory were built in Wajir East. County has high potential for limestone manufacture.	There are small scale Jua Kali enterprises. These include welding and fabrication of, motor vehicle repair, carpentry and handcrafts, tailoring. and clothing, Bakery, watch and shoe repair.

No.	Pattern	Counties		
		Marsabit	Wajir	Mandera
16	Cultural Practices	Include Female Genital Mutilation (FGM), early marriages & cattle rustling. The boy child is preferred to the girl child with the latter in most cases being considered as a source of wealth.	Early and forced marriages of girls, as well as FGM have led to low development.	Women and girls are subjected to cultural practices such as Female Genital Mutilation and child marriage.
17	Poverty	92% of persons in County experience absolute poverty, 83% experience food poverty, & 68% hard core poverty. Caused by emphasis of livestock as wealth, poor road network, persistent drought, environmental degradation, insecurity, over- dependence on foreign aid, & HIV/ AIDS.	84% of the population live under absolute poverty. This is caused by unreliable rainfall, high levels of illiteracy, poor crop and animal husbandry practices, poor infrastructure, inaccessibility to credit facilities, poor marketing systems, natural disasters, wildlife menace & environmental degradation.	Poverty levels are high.
18	Human Development Index (HDI)	0.438 (national average is 0.520)	0.421 (national average is 0.520)	0.420 (national average is 0.520)
19	Youth Development Index (YDI)	0.3969 (national average 0.5817)	0.8951 (Based on 2009 provincial average figures) National average 0.5817	0.8951 (Based on 2009 provincial average figures) National average 0.5817

7.1.1 Sabarwawa Landscape

The above landscape site occurs in three (3) Counties, namely: Isiolo, Samburu and Marsabit.

The key socio-economic indicators presented below include the following:

- Population size and composition
- Population type
- Population growth rate
- Literacy
- Housing
- Land and land use
- Land tenure system
- Self-help, women and youth groups
- Crops produced
- Livestock bred
- Fishing activities
- Industry
- Cultural practices
- Poverty
- Human Development Index (HDI)
- Youth Development Index (YDI)

Table 3: Sabarwawa Landscape Site

No	Patterns	Counties		
		Isiolo	Samburu	Marsabit
1	Population Size & Composition	143,294: 73,694 male & 69,600 female (2009 Population & Housing Census)	223,947 people: 112,007 male & 111,940 female (2009 Population & Housing Census)	316,206 people for year 2012: 164,105 male & 152,101 female (2009 Population & Housing Census)
2	Population type	Majority of population is the young population (0-14) account for 44.4 percent of the population. While the aged 65 and above account for 3.6 percent. Both groups add up 48%.	Youthful (over 80% below 35 years of age)	Over 67.8% of population is below 24 years. This is an indicator of a growing population. The county expects greater pressure on resources in future if the trend continues
3	Population Growth Rate	3.6%	4.45% per annum	2.67%
4	Literacy	Literacy 35.5%: Male-35.9% and F-35.1% (national average-71.4%)	Literacy 12.5%: Male- 12.8% and Female-12.2%	Literacy 4.1%: Male-4.9% and Female-3.4%
5	Housing	Most houses constructed of mud, grass & wood ('manyatta'). Permanent housing structures only found in Isiolo town & other urban centres.	Towns of Maralal, Wamba & Baragoi have decent housing, with rest of County dotted with manyattas. Individual settlements are poorly planned and informal settlements are emerging.	Mud/ wood walled houses = 34.2%; grass straw type = 22.8%. Other materials include stone walls, brick/ block, mud/ cement, wood only, corrugated iron sheets, tin and others. Most (91.3%) of houses have earth floors & a majority (37.5% are roofed with 'makuti' (palm leaves).
6.	Health Issues	Sanitation- Open defecation by adults and disposal of children faeces in the open is still rampant. The two most prevalent diseases are: malaria & diarrhoea, stomach. 90% of the children in the county have been immunized. 73% of the deliver at home.	Sanitation in the county is poor due to low latrine coverage. The two most prevalent diseases in the county are respiratory diseases (35.7 percent), malaria (28.9 %).	Sanitation-Pit latrine coverage accounts for 34.3% of population Morbidity- Most prevalent disease is Malaria/fever accounting for 44.8% of the population. Average morbidity for the county is 21.4% Immunization coverage is 63.6 % Contraceptive acceptance is low at 8.3 per cent due to cultural and religious beliefs. HIV prevalence is at 1.8%

No	Patterns	Counties		
		Isiolo	Samburu	Marsabit
7	Food security/ Nutritional security	Frequent famines and poor nutrition contributes to the high levels of wasting and stunting. Prevalence of stunting is 18.6%.	Proportion of children at risk to malnutrition which stands at 17.8 percent. More than one in three children (42 percent) in the County is stunted or too short for their age compared to 35 percent nationally	Chronic malnutrition is prevalent with 31% of the children under five years malnourished while 40 % per cent are stunted.
8	Land and Land Use	80% of the land is used as grazing land by the pastoralists. In some areas, agro-pastoralism is practised with the inhabitants engaging in both livestock and crop farming. Women have less control over land resources.	Categories of land ownership: trust, communal, government & private. Bulk of land not registered. Primary land use is pastoralism and wildlife conservation. Gazetted forests occupy 15% of land area. Women have less control over land resources	Most of the land in the county is owned communally. Less than 1% of land is registered in the county. Agriculture and rural development contributes to approximately 60 % of the county's economy. Women have less control over land resources.
9	Land Tenure system	80% of land communally owned, under trusteeship of County government, while 10% of land under Government ownership & remaining 10% under private ownership.	Most land owned communally or by group ranches.	Most land owned communally or by group ranches.
10	Self Help, Women & Youth Groups	60 active women self- help groups, 345 CBOs, & 280 youth groups	600 registered women groups, 900 youth groups & 130 CBOs in County	480 self-help groups, 310 women groups & 504 youth groups in the County. Activities include goat keeping, bee keeping, poultry- rearing & small micro enterprises.
11	Crops produced	Maize, beans, cowpeas, onions, mangoes, pawpaws & other horticultural crops	Maize, beans, wheat, barley and millet	Vegetables & fruits, maize, teff, beans & millet. Crop trees include oranges, avocados, mangoes & miraa.

No	Patterns	Counties		
		Isiolo	Samburu	Marsabit
12	Livestock bred	Cows (Zebu and Boran), goats (galla, small East African, Saanen, Toggenburg, Swiss Alpine), sheep (black head Persian), camels (Somali, Turkana & Rendille).	Indigenous cows (Zebu & Boran), goats (Small E.A, crosses of Toggenburg, Gerryman-alpine & Gala), sheep (Borpers & Red Maasai), camels (Somali, Rendille and Turkana) and donkeys.	Cattle, goats, sheep, camels, donkeys & chicken + bee keeping.
13	Fishing activities	Caroes, tilapia, barbus & labeo.	Less than 10 individual fish farmers in Kirisia Division. Main fish species: Tilapia.	Mainly in Lake Turkana, for tilapia, labeo and Nile Perch
14	Industry	No manufacturing establishments/ industries.	No manufacturing industries.	Mining of blue quamline and mica is done at South Horr in Laisamis Constituency. County has high potential for manufacturing blue quamline and exploration of petroleum.
15	Cultural practices	Women perform all domestic chores & take care of children, cattle rustling, and cattle raiding is common. FGM is common.	Include Female Genital Mutilation (FGM), early marriages, moranism & cattle rustling.	Include Female Genital Mutilation (FGM), early marriages & cattle rustling. The boy child is preferred to the girl child with the latter in most cases being considered as a source of wealth.
16	Poverty	71% of county population live below the poverty line	80% of County population live below the poverty line. Caused by: cross border insecurity, low enrolment in schools, unpredictable weather patterns, poor infrastructure & retrogressive cultural practices.	92% of persons in County experience absolute poverty, 83% experience food poverty, & 68% hard core poverty. Caused by emphasis of livestock as wealth, poor road network, persistent drought, environmental degradation, insecurity, over-dependence on foreign aid, & HIV/ AIDS.
17	Human Development Index (HDI)	0.438 (national average is 0.520)	0.430 (NA is 0.520)	0.438 (national average(NA) is 0.520)
18	Youth Development Index (YDI)	0.3969 (national average 0.5817)	No data	0.3969 (national average 0.5817)

7.1.2 Mid Tana River Landscape Site

The above landscape site occurs in six Counties, namely: Isiolo, Meru, Tharaka Nithi, Kitui, Garissa and Tana River.

The key socio-economic indicators presented below include the following:

- Population size and composition
- Population growth rate
- Literacy
- Housing
- Land and land use
- Land tenure system
- Self-help, women and youth groups
- Crops produced
- Livestock bred
- Fishing activities
- Industry
- Cultural practices
- Poverty
- Human Development Index (HDI)
- Youth Development Index (YDI)

Table 4: Mid Tana River Landscape Site

No.	Socio-economic Category	Counties					
		Isiolo	Meru	Tharaka Nithi	Kitui	Garissa	Tana River
1	Population Size & Composition	143,294: 73,694 male & 69,600 female (2009 Population & Housing Census)	1,356,301: 670,656 male & 685,645 female (2009 Population & Housing Census)	399, 735 in 2012 (195,256 males and 204,479 females)	1,012,709 (531,427 female & 481,282 male (2009 Population & Housing Census)	699,534: 375,985 male & 323,549 females (2012 est).	261,348: 130,875 female & 130,473 male (2012 est).
2	Population type	Majority of population is the young population (0-14) account for 44.4 percent of the population. While the aged 65 and above account for 3.6 percent. Both groups add up 48%.	The youthful population accounts for 68% of the total population.	About 72.5 % of the population is below 35 years meaning that the youth were the majority of the population	The county has a high population of children, population between the ages of 0-14 years is 238,928 male and 232,820 females which represented 46.6% of the total population	Majority of the age group is between the age group (6-13) which represents 49% of population	The age group 15-30 years constitutes 58% of the potential labour force
3	Population Growth Rate	3.6%	2.1%	1.8%	2.1%	3.96%	3.4%
4	Literacy	Literacy%: Male-51.6% and F-33.2%) national average-71.4%	53% (40% male & 60% female) literacy percentage	17% of population cannot read, & 13.2% cannot write. 16.9% cannot read or write. Literacy%:M-37.8% & F-48%.	77.3% of population can read and write Literacy%: M-40.4%, F-61.4%	39.7% of population can read, while 57.9% cannot read and write. 8.1% of women literate & 20.2% of men literate. Literacy%: M-20.2%, F-8.1%	33.7% of population able to read and write. Literacy%: M-60.5%, F-36.0%

No.	Socio-economic Category	Counties					
		Isiolo	Meru	Tharaka Nithi	Kitui	Garissa	Tana River
5	Housing	Most houses constructed of mud, grass & wood ('manyatta'). Permanent housing structures only found in Isiolo town & other urban centres.	97.5% roofs of corrugated iron sheets. Housing inadequate, unaffordable & indecent.	Rural areas: mud-walled or wooden with earth or cement floors. Urban areas: stone houses with corrugated iron sheet roofs.	76.4% corrugated iron sheets roofs, 66.3% earth floors, & 64% brick/ block walls.	Majority of population live in 'manyattas'.	
6	Land and Land Use	80% of the land is used as grazing land by the pastoralists. In some areas, agro-pastoralism is practised with the inhabitants engaging in both livestock and crop	Land use mainly for agricultural activities for both crops farming and livestock-keeping. Other uses include cultural and forestry conservation.	Land use mainly for agricultural activities for both crops farming and livestock-keeping. Other uses include cultural and forestry conservation.	Consists of the Tsavo East National Park, arable agricultural land (over 46%), & non-arable land.	Predominantly nomadic pastoralism, with farming activities along River Tana.	Largely non-arable.
7	Land Tenure System	80% of land communally owned, under trusteeship of County government, while 10% of land under Government ownership & remaining 10% under private ownership. Women have less control over land resources	Most land is individually owned through Land titles. Over 50% of owners have title deeds. Women have less control over land resources.	There is a critical squatter problem due to boundary disputes and conflict over grazing land and land ownership. Women have less control over land resources	83% of inhabitants lack title deeds. Women have less control over land resources	Less than 1% of population have title deeds. Women have less control over land resources	90% of land is either Trust Land or Government Land. Women have less control over land resources

No.	Socio-economic Category	Counties					
		Isiolo	Meru	Tharaka Nithi	Kitui	Garissa	Tana River
8	Self Help, Women & Youth Groups	60 active women self-help groups, 345 CBOs, & 280 youth groups.	1,841 women groups, & 1,200 youth groups.	Over 500 registered and active self-help groups.	161 women groups & 312 youth groups.	98 youth groups and 59 active women groups have been registered in the county. Activities groups undertake include, bee-keeping, small scale, farming and small-scale business.	405 self-help groups, 340 women groups and about 385 youth groups. Groups require equipping with entrepreneurial skills.
9	Crops Produced	Maize, beans, cowpeas, onions, mangoes, pawpaws & other horticultural crops.	Miraa is the major agricultural cash crop. Other crops include mangoes, citrus, coffee, maize, beans, bananas, pigeon peas & horticultural crops.	Maize, beans, cowpeas, sorghum, green grams, millet, black beans. Cash crops include tea and coffee	Cereals, maize, millet, sorghum, legumes, green grams, beans, cowpeas, pigeon peas, cassava & sweet potatoes. Cotton and sisal industrial crops & horticultural crops such as mangoes, pawpaws, water melons, tomatoes,	Watermelons, mangoes, vegetables, tomatoes, pawpaws, bananas, cowpeas, simsim, maize, beans & green	Mangoes, maize, cowpeas, bananas and green grams.
10	Livestock bred	Cows (Zebu and Boran), goats (galla, small East African, Saanen, Toggenburg, Swiss Alpine), sheep (black head Persian), camels (Somali, Turkana & Rendille).	Goats, cattle, sheep, pigs, rabbits & poultry.	Cows (Friesian, Guernsey, Ayrshire, Zebu), sheep, goats and chicken.	Cows (Ayrshire, Friesian, Guernsey, Jersey, Zebu), goats (Toggenburg), indigenous chicken, bee keeping, rabbits, and pigs.	Cattle (Boran), goats (Galla), sheep (black headed Persian) and camel (dromedary one humped)	Cattle (Orma-boran), donkey, camel, sheep (black head Persian), goat (Galla) and poultry (indigenous chicken and ducks).

No.	Socio-economic Category	Counties					
		Isiolo	Meru	Tharaka Nithi	Kitui	Garissa	Tana River
11	Fishing activities	Caroes, tilapia, barbus & labeo.	Tilapia, mud fish and trout (fish ponds)	Catfish, eel, trout & tilapia (fish ponds).	Tilapia, cat fish, carp, black bass, eel, Barbus and mud fish.	Mud fish, cat fish, bone fish, tilapia & eel (small scale along River Tana, in fish ponds).	Tuna, catfish, rabbit fish, tilapia and Synodontis.
12	Industry	No manufacturing establishments/ industries.	Numerous factories which add value to agricultural products.	Agricultural processing, especially tea and coffee	9 established industries	Single industry – Maua Milling	Single mango and honey processing factory.
13	Cultural Practices	Women perform all domestic chores & take care of children, cattle rustling, and cattle raiding is common. FGM is common.	FGM is still practiced in some areas. Child labour is high at 35% and is mostly engaged in miraa production and supply chain system.	Miraa chewing is a common cultural tradition used in dowry celebration. FGM is still practiced in some areas.	Most land owned by men, which disadvantages women and youth.	FGM is still dominant. Early and forced marriages of girl child and FGM.	Early and forced marriages of girl child and FGM.
14.	Health Issues	Sanitation- Open defecation by adults and disposal of children faeces in the open is still rampant. The two most prevalent diseases are: malaria & diarrhoea, stomach. 90% of the children in the county have been immunized. 73% of the deliver at home.	Sanitation-80.4% of population uses pit latrines. The major diseases affecting the county populace are malaria, skin diseases. The prevalence rate of malaria stands at 15% while HIV/AIDS prevalence rate of 6.3 per cent. Immunization coverage is 98%	Over 87.7% of the county population uses pit latrines. The two most morbidity diseases in order of prevalence are: Malaria (33.8 %t), headaches (13.1%), Respiratory tract infections (9.5%). Immunization coverage is 76%.	Sanitation- latrine coverage is at 55.1%. The 2 most common diseases causing morbidity are malaria/fever estimated at 49.1%, diarrhoea 3.4%. HIV/AIDS prevalence is at 6.1%. The immunization for Kitui County is generally low at 69.9%.	Sanitation-46.6% of the population uses pit latrines. 50.63 % use other means of sanitation such as bushes (ODF). The most prevalent disease is Malaria, with a prevalence of 46.6%. Vaccination coverage is 62%.	Sanitation level is at 48 per cent. Three most prevalent diseases are respiratory tract infections, diarrhoea, malaria. Average immunization coverage of 76 % below WHO 90% standard. Uptake of FP services is 34.3 per cent.

No.	Socio-economic Category	Counties					
		Isiolo	Meru	Tharaka Nithi	Kitui	Garissa	Tana River
15.	Food security / Nutritional security	Frequent famines and poor nutrition contributes to the high levels of wasting and stunting. Prevalence of stunting is 18.6%.	Cases of malnutrition are minimal because majority of the areas in the county are food secure.	Over 70% of children of children are food & nutritionally secure.	Nutrition status remains poor as a result of frequent droughts resulting to food insecurity. Wasting rates among children <5 years are at 4.6%, Stunting at 38.2% way above the national average of 26%.	The prevalence underweight children is 26% while stunting is 38.6 %. There is high Food insecurity in the region with a majority of the population relying on relief food.	Malnutrition rate of 0-59 months children is at 12.4%

7.1.2.1 Chyulu Hills Landscape Site

The above landscape site occurs in three Counties, namely: Makueni, Kajiado, and Taita Taveta.

The key socio-economic indicators presented below include the following:

- Population size and composition
- Population growth rate
- Literacy
- Housing
- Land and land use
- Land tenure system
- Self-help, women and youth groups
- Crops produced
- Livestock bred
- Fishing activities
- Industry
- Poverty
- Human Development Index (HDI)
- Youth Development Index (YDI)

Table 5: Chyulu Hills Landscape Site

Socio-economic Category		Counties		
		Makueni	Kajiado	Taita Taveta
1	Population Size & Composition	884,253: 430,567 male & 453,686 female (2009 Population & Housing Census)	687,312: 345,146 male & 342,166 female (2009 Population & Housing Census)	284,657: 145,334 male & 139,323 female
2	Population type	Age group (15-64) years accounts for 51.1 per cent of the total population and is the productive work force.	The county productive population age group (15-64) years accounts for 56.1 percent of the total population. Male are more (50.06 percent) compared to females (49.94 percent).	Age group (15-64) years accounts for 50% of the total population and is the productive work force.
3	Population Growth Rate	1.4%	5.5%	1.6%
4	Literacy	69.2% literacy rate: Male-75.2% and Female-63.2%	65.2% literacy rate: Male-48.1% and Female-52.3%	79.1% of population aged 15 years and above can read and write. Literacy rate 84.1%: Male-88.3% and Female-80.1%
5	Housing	72.6% of houses are brick/ blocks walled, 53.5% have earth floors, and 86.6% are roofed with corrugated iron sheets.	Urban areas have both high-end settlements and sprawling slums; peri urban areas have mainly permanent and semi-permanent houses; rural areas have semi-permanent houses and <i>manvattas</i> .	51.1% of houses have brick/ block walls, 64.7% have earth floors, and 80.2% of houses are roofed using corrugated iron sheets.
6	Land and Land Use	74% of total land area is arable, 21.9% is non-arable, and 7.4% is urban area.	Land used mainly for livestock rearing and crop growing. Industrial and commercial use is gaining momentum.	Only 12% of the land is arable.
7	Land Tenure System	19.8% of land owners have title deeds. Women have less control over land resources.	Most land in the rural areas is without title deeds, compared to the urban and peri-urban areas. Women have less control over land resources.	35% of land owners have title deeds. A large proportion of the land is communally owned. Women have less control over land resources

No	Socio-economic Category	Counties		
		Makueni	Kajiado	Taita Taveta
8	Self Help, Women & Youth Groups	444 youth groups and 811 registered women groups.	Over 400 active women groups.	1,328 registered women groups, 1,534 youth groups and 4,597 self-help groups.
9	Crops Produced	Maize, green grams, pigeon peas and sorghum. Fruits include mangoes, pawpaw and oranges. Cotton is also grown.	Maize, beans, potatoes, vegetables, onions, tomatoes.	Maize, beans, green grams, sorghum, cowpeas, pigeon peas, cassava and sweet potatoes.
10	Livestock bred	Dairy cattle, beef cattle, sheep, goat, donkeys chicken, pigs, and bees.	Sheep, goats, beef and dairy cattle, commercial chicken, indigenous chicken, donkeys, pigs and camel.	Beef cattle, dairy cows, sheep, goats, camels, donkeys, pigs, poultry (chicken and guinea fowl), rabbits, and bee keeping.
11	Fishing activities	Tilapia fish (through fish farming)	Tilapia, catfish, common cat (<i>cyprinus corpio</i>) and mosquito fish (<i>gandusia affinis</i>).	Tilapia, claria, eel, crayfish, and sardines.
12	Industry	One upcoming fruit processing plant at Wote town, as well as a ginnery for cotton processing. There are also light industries, especially in the 'jua kali' sector.	County is home to TATA Chemicals which is a heavy industry. There are also numerous medium and light industries, such as steel fabrication and glass-making.	Five (5) industries that range from small to medium scale in nature: sisal fibre production, & milk cooling plants
13	Poverty	64.3%	Human Poverty Index of 27%. More than 47% of the population live below the poverty line.	Absolute poverty level of 57.2%
14	Human Development Index (HDI)	0.480 (national average is 0.52)	0.59 (national average is 0.52)	0.54(national average is 0.52)

No	Socio-economic Category	Counties		
		Makueni	Kajiado	Taita Taveta
15	Youth Development Index (YDI)	(0.5837) Based on 2009 provincial average figures) National average 0.5817	0.6931 (Based on 2009 provincial average figures) National average 0.5817)	0.5530 (Based on 2009 provincial average figures) National average 0.5817
16	Health Issues	80 per cent of the households have access to pit latrines. Town lack sewerage facilities and the sanitation condition is worsened by water shortage. Malaria is the most common disease in the County with a prevalence rate of 51.1% followed by flu 12.7%. Immunization rate is 62.26% while contraceptive acceptance rate is 30.75%.	Sanitation-50% of HHs in the county practice open defecation. The two most common causes of morbidity in order of prevalence are: upper respiratory tract conditions (29.7%), skin diseases (8.4%). Immunization in the county stand at 67.2%. Only 36.7% of women of child bearing age in the county use family planning methods.	Sanitation- 86% of the total households in the County have access to toilet facilities. The two most prevalent diseases in the County are Malaria (38.7%), Upper Respiratory Tract Infection (URTI) (34.1%). Only 68.1% of the infants are fully immunized. The percentage of women using modern methods standing at 29.7%
17	Food security/Nutritional security	The county is classified under Stressed Phase (IPC Phase 2). Approximately 20 percent of the households had a borderline or poor food consumption score. The number of children under-five years who were underweight increased to 5.16%	Underweight (weight for age) is reported at 22.7% while stunted (height for age) is estimated to be 29.5%. malnourished persons are offered relief foods and supplements to improve their health.	The percentage of children under 5 years classified as malnourished is 34.0%, 11.2% and 28.5% as per height for age stunting, weight for height wasting, and weight for age underweight respectively.

8 Gender issues in the project area

The Gender Inequality Index (GII) reflects gender-based disadvantage in three dimensions – reproductive health, empowerment and the labour market. The index also demonstrates the loss in potential human development due to inequality between female and male achievements in these dimensions. It varies between 0 – when women and men fare equally, and 1 – where one gender fares as poorly as possible in all measured dimensions.

Kenya has an overall GII of 0.651 (draft 7th Human Development Report). This is however, not equal everywhere, as there are regional disparities with Counties located in arid and semi-arid lands, having high Gender Inequality Indices.

The assessment of the gender inequality index was done for the initially identified four project landscapes namely Moyale-Wajir North Banisa Hills; Sabarwawa; Mid Tana River; and Chyulu Hills. The target landscapes were however scaled down after further consultations and the Moyale-Wajir North Banisa Hills landscape dropped. The project will therefore focus two landscapes namely the Mid Tana River (including Sabarwawa) landscapes located in the arid zone and the Chyulu Hills landscape located in the semi-arid zone.

8.1 Moyale-Wajir North Banisa Hills Landscape Site

The Counties represented in this landscape site also have a higher GII than the national level, with Marsabit having the highest GII of 0,732. The high GIIs witnessed in this landscape site are attributed mainly to socio-cultural factors.

Table 6: Gender Inequalities in Moyale-Wajir North Banisa Hills Landscape Site

Marsabit	Wajir	Mandera
<p>GII of 0.732.</p> <p>Women are adversely affected by such factors as traditional & social practices (early marriage, sexual violence, FGM), as well as poverty and insecurity, among other challenges.</p>	<p>GII of 0.693.</p> <p>Women in the county are more vulnerable to poverty than men as they spend most of their time searching for water and firewood. Women also do not own or control assets like livestock and rarely take part in decision making.</p> <p>Boys benefit more from formal education as young girls remain at home to help in household chores and herding. Whilst HHs headed by single or divorced mothers have fewer economic resources, land and capital. Women also do not enjoy equal rights to inheritance of assets like land, and are thus denied economic power.</p>	<p>GII of 0.686</p> <p>The basic gender concerns in the County related to limited access to economic assets and negative cultural practices that hinder females from fully participating in the development activities and decision making.</p> <p>Women in the county are more vulnerable to poverty than men as they spend most of their time searching for water and firewood. Women also do not own or control assets like livestock and rarely take part in decision making.</p>

8.2 Sabarwawa Landscape Site

Marsabit and Samburu Counties have a higher GII than the national level, while Isiolo is only slightly lower than the national level of 0.651. Socio-cultural factors are the primary cause of the GIIs witnessed in this landscape site.

Table 7: Gender Inequalities in Sabarwawa Landscape Site

Marsabit	Samburu	Isiolo
<p>GII of 0.732.</p> <p>Women are adversely affected by such factors as traditional & social practices (early marriage, sexual violence, FGM), as well as poverty and insecurity, among other challenges.</p>	<p>GII of 0.693.</p> <p>Women are adversely affected by such factors as traditional & social practices (early marriage, sexual violence, FGM), as well as poverty and insecurity, among other challenges.</p> <p>Women also do not enjoy equal rights to inheritance of assets like land, and are thus denied economic power.</p>	<p>GII of 0.640</p> <p>Women in the county are more vulnerable to poverty than men as they spend most of their time searching for water and firewood. Women also do not own or control assets like livestock and rarely take part in decision making.</p> <p>Boys benefit more from formal education as young girls remain at home to help in household chores and herding.</p>

8.3 Mid Tana River Landscape Site

Isiolo, Meru, Tharaka Nithi and Kitui Counties have GIIs that are lower than the national level, with Kitui having the lowest GII among the earlier mentioned three counties. Conversely, Tana River County has the highest GII. Similar to the other landscape sites, the GIIs may be attributed primarily to socio-cultural practices that result in men benefitting disproportionately from a patriarchal system.

Table 8: Gender Inequalities in Mid Tana River Landscape Site

Counties					
Isiolo	Meru	Tharaka Nithi	Kitui	Garissa	Tana River
<p>GII of 0.640.</p> <p>Women in the county are more vulnerable to poverty than men as they spend most of their time searching for water and firewood. Women also do not own or control assets like livestock and rarely take part in decision making. Boys benefit more from formal education as young girls remain at home to help in household chores and herding.</p>	<p>GII 0.640</p> <p>Highly patriarchal system that defines the spaces for women as being at home, tending to chores and raising children. Serious under-representation of women in governance and decision-making structures with less than 1/3 of county</p> <p>Positions held by women. Inherent belief by women that they should be dominated by their men.</p>	<p>GII 0.580</p> <p>Gender inequality is experienced during property inheritance, production and control of proceeds from production, meaningful engagement in all aspects of development, and human rights issues.</p>	<p>GII 0.59</p> <p>Land ownership structure is skewed towards men, with most of land being owned and controlled by men.</p> <p>Gender inequality is experienced through lack of access to formal employment opportunities, credit and financial services, land ownership, education and health facilities. Additional challenges include sexual harassment, gender-based violence, harmful cultural practices, stigma and discrimination.</p>	<p>GII 0.65</p> <p>Gender concerns in the County are related to access to economic assets and cultural practices that act against the female population. Men take the leading role in making most of the major decisions in terms of development activities.</p> <p>Women do not enjoy equal rights to inheritance of assets like land, which could enhance their development.</p>	<p>GII 0.69</p> <p>Gender concerns also relate to access to economic assets, and cultural practices that marginalize women from fully participating in development.</p>

8.4 Chyulu Hills Landscape Site

GII scores were not available for the counties in this landscape site. However, information obtained indicated that women are still disadvantaged such that they hold low positions in the family and society, with little hope of ownership of productive resources.

Table 9: Gender Inequalities in Chyulu Hills Landscape Site

Counties		
Makueni	Kajiado	Taita Taveta
<p>About 80% of small-scale farming and livestock rearing activities are managed and carried out by women. However, women hold a low position in the family set up and in the community, where they do not have control of product assets such as land and capital. The male child is also given preference over the girl child in, for example, access to education. Early marriages also severely and adversely affect the girl child.</p>	<p>Gender Development Index (GDI) adjusts the HDI for disparities between men and women. GDI in the county has been estimated at 0.415, compared to the national level estimated at 0.492 in 2009.</p> <p>The County is affected due to negative cultural practices and beliefs (men own land and livestock), which impact on women development.</p>	<p>75% of agricultural labour consists of women (mostly rural) yet they only control and have access to 40% of the accruing benefits. In leadership, women hold fewer positions in decision-making due to cultural barriers. With regard to reproductive health rights, women have little say on the number of children they should bear, leading to negative impacts on women health. Measures include improved education for girls, family planning for women, agricultural mechanization, output, training of women on appropriate farming technologies, awareness creation and implementation of one third gender rule as required by the constitution.</p>

9 Gender Assessment of Project Area

A gender assessment was carried out through the Harvard Gender Analysis Framework and Rani Parker's Gender Analysis Matrix. With the understanding that women and men are affected by development activities differently, the Harvard Gender Analysis Framework uses Activity Profiles/Schedules, and Access and Control Profiles. The use of Activity Schedules helps to explain how men, women, boys and girls in the project target areas spend a typical day from the time they wake up until they go to bed (24-hour day). Access and Control Profiles, on the other hand, are used to analyse current and potential impacts of development interventions on women and men, at the level of individuals, households and the community, against categories such as labour, time, resources and culture. The Access and Control Profiles are insightful in determining power relations and interests based on gender roles.

The Gender analysis in this report was carried out for the initially identified four project landscapes namely Moyale-Wajir North Banisa Hills; Sabarwawa; Mid Tana River; and Chyulu Hills. These landscapes were reduced to two landscapes namely 1) the Mid Tana River and Sabarwawa landscapes and the 2) Chyulu Hills landscape. Much of the analysis in this report refers to the original 4 landscapes but the analysis in the report to the project proposal as now described remains relevant.

9.1 Methodology for Activity Schedules

Step 1: Identification of Seasons

1. Identifying the busiest and the quietest time of the year in terms of women's workload.
2. Preparing a daily activity chart for the busiest season and a separate one for the quietest season.
3. Making an assumption about the type of household (e.g. marital status, number of adults and children) that will be represented by the information.

Step 2: Preparation of Busiest Schedule: Women describe their own activities

1. Asking the group at what time they wake up each morning during the busiest time of the year and complete the time column (in hours).
2. Asking the group to describe their day, starting from when they wake up and concluding when they go to bed. Recording all the activities they undertake against an approximate timing.

Step 3: Preparation of Busiest Schedule: Women describe men's activities

1. Continuing with the busiest season, repeat step 2 but focusing on the opposite sex with women describing the daily activities of the male members in their households.

Step 4: Preparation of Quietest Schedule

1. Repeat steps 2 and 3 for the quietest time of the year.

Step 5: Analysis

1. Concluding the exercise by asking the group to calculate (with reference to the information collected) the number of hours worked by women and men during the busiest and quietest times of the year, and their respective hours of rest during the day.
2. Reflecting on the findings

9.2 Moyale-Wajir North Banisa Hills Landscape Site-Marsabit and Mandera Counties

Presented below are the Activity Schedules for Marsabit and Mandera Counties. In Marsabit County, Women are involved in most household chores and activities, while boys participate in crop cultivation, rearing of young livestock and shoats. Customary law, cultural attitudes and rigidity to gender roles overburden women. Men primarily take care of mature livestock and ensure herds they seek for suitable grazing and watering points even if it means moving away with their livestock for several months and hundreds of kilometers. The boy child is preferred to the girl child with the latter in most cases being considered as a source of wealth (CIDP Marsabit, 2013). There is low enrolment and high drop-out rates in schools for girls, leading to limited opportunities for the girl child to acquire the necessary skills and training. Most Girls in Marsabit county spend their time sourcing for fuel wood, fetching water, child care for younger siblings, sourcing for food and food preparation.

In Mandera County, men, women, boys and girls participate in all economic activities, and most household activities. Boys and girls do not participate in community meetings, while all except girls take a household leadership role (men, women and boys). Girls do not participate in household leadership roles as shown in the activity schedule below. The basic gender concerns in Mandera county relate to limited access to economic assets and negative cultural practices that hinder females from fully participating in the development activities and decision making.

9.2.1 Activity Schedules

MARSABIT COUNTY

In Marsabit county, Men spend most of their daily time carrying out activities related to: land clearing, crop cultivation, Livestock management, trade and other informal sector activities. Women support the Men in land clearing however most of their daily time is spent on family care related activities. Girls in Marsabit are exempted from most tasks except child care, collecting firewood, water supply and food preparation. Long distances travelled by Girls in search of fuelwood and water can expose them to Gender based violence and also make them miss school and education or end performing poorly if enrolled.

Table 10: Activity schedules for Marsabit County

ECONOMIC ACTIVITIES	Men (M)	Women (W)	Boys (B)	Girls (G)	Time spent daily (hours)
Land clearing	<input type="checkbox"/>	<input type="checkbox"/>			5 (M-2 hrs, W-3 hrs)
Crop cultivation	<input type="checkbox"/>		<input type="checkbox"/>		7 (M-3 hrs, B-4 hrs)
Livestock care	<input type="checkbox"/>				11 (M-11 hrs)
Trade/ commerce	<input type="checkbox"/>				11 (M-11 hrs)
Formal sector employment	<input type="checkbox"/>	<input type="checkbox"/>			8 (M-5 hrs, W-3 hrs)
Informal sector activities	<input type="checkbox"/>	<input type="checkbox"/>			7 (M-3 hrs, W-4 hrs)
Other					
HOUSEHOLD ACTIVITIES	Men (M)	Women (W)	Boys (B)	Girls (G)	Time spent daily (hours)
Leadership	<input type="checkbox"/>		<input type="checkbox"/>		2 (M-1.5 hrs, B-0.5 hrs)
Maintenance & repair of house		<input type="checkbox"/>			4 (W-4 hrs)
Family care		<input type="checkbox"/>			11 (W-11 hrs)
Child care		<input type="checkbox"/>		<input type="checkbox"/>	8 (W-8 hrs)
Hygiene		<input type="checkbox"/>		<input type="checkbox"/>	2 (W-1 hr, G-1 hr)
Health-related issues	<input type="checkbox"/>	<input type="checkbox"/>			
Collecting fuel wood		<input type="checkbox"/>		<input type="checkbox"/>	8 (W-3 hrs, G-5 hrs)
Assuring water supply		<input type="checkbox"/>		<input type="checkbox"/>	8 (W- 3hrs, G- 5hrs)
Buying/ sourcing of food	<input type="checkbox"/>	<input type="checkbox"/>			4 (M-1 hrs, W-3 hrs)
Food preparation		<input type="checkbox"/>		<input type="checkbox"/>	
COMMUNITY ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Assistance to disadvantaged persons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4 (M-1hr,W-3, B-1hrs)
Cultural/ religious ceremonies (births, marriages & burials)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6 (M-2hrs, W-2hrs, B-2hrs, G-2hrs)
Community meetings	<input type="checkbox"/>	<input type="checkbox"/>			3 (M-2hrs, W-1hr)
Other (political involvement)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5 (M-3hrs, W-1hr, B-1hr, G-1hr)

HOUSEHOLD ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Leadership	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		24 (M-12hrs, W-6hrs B-6hrs)
Maintenance & repair of house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6 (M-2hrs, W-2hrs, B-2hrs, G-2hrs)
Family care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24 (M-4hrs, W-12hrs, B-2hrs, G-6hrs)
Child care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18 (M-1hrs, W-10hrs, B-1hrs, G-4hrs)
Hygiene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12 (M-1hr, W-6hrs-B-1hr, G-4hrs)
Health-related issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 (M-2hr, W-6hrs, B-1hr G-1hr)
Collecting fuel wood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6 (M-1hr, W-2, B-1, G-2hrs)
Assuring water supply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4 (M-1, W-1, B-1 G-1hr)
Buying/ sourcing of food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12 (M-2, W-6hrs, B-1hr, G-3hrs)
Food preparation		<input type="checkbox"/>		<input type="checkbox"/>	5 (W-3, G-2)

MANDERA COUNTY

In Mandera county, most economic activities are shared among the Men, Women, Boys and Girls. There is distribution of labour and responsibilities among family members. With this kind of responsibility sharing Women have time to take up leadership roles in groups, start small businesses and cultivate in their farms. Girls and Boys have more spare time to attend school since they are not overburdened with household work.

Table 11: Activity schedules for Mandera County

ECONOMIC ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Land clearing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8 (M-3hr, W-1hr, G-1hr, B-3hr)
Crop cultivation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 (M-2hrs, W-4hr, B-1hrs, G-1hr)
Livestock care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12 (M-6hr, W-1hr, B-4hrs-G-1hr)
Trade/ commerce	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11 (M-3hrs, W-5hr, B-2hr, G-1hr)
Formal sector employment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8 (M-4hr, W-1hr, B-2hr, G-1hr)
Informal sector activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12 (M-6hrs, W-2hr, B-3hrs, G-1hr)

COMMUNITY ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Assistance to disadvantaged persons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4
Cultural/ religious ceremonies (births, marriages & burials)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
Community meetings	<input type="checkbox"/>	<input type="checkbox"/>			3
Other (political involvement)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5

HOUSEHOLD ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Leadership	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		24 (M-5hr, W-3hr, B-2hr, G-2hr)
Maintenance & repair of house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6 (M-2hr, W-2hr, B-3hr, G-1hr)
Family care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24 (M-2hr, W-12hrs, B-2hr, G-8hrs)
Child care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18 (M-2hr, W-8hr, B-2hr, G-6hr)
Hygiene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12 (M-1hr, W-4hr, B-1hr, G-6hr)
Health-related issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 (M-2hr, W-6hr, B-1hr, G-1hr)
Collecting fuel wood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6 (M-1hr, W-1hr, B-1hr, G-3hrs)
Assuring water supply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4 (M-1hr, W-1hr, B-1hr, G-1hr)
Buying/ sourcing of food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12 (M-4hrs, W-6hr, B-1hr, G-1hr)
Food preparation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5 (1hr, W-3hr, B-1hr, G-1hr)

9.2.2 Methodology: Access and Control Profiles

Step 1: Resources

1. With the group, draw up a list of all resources available to people in the village for domestic use, or for farming or off-farm work).
2. Record the list in the left-hand column of the matrix.

Step 2: Explain the difference between access and control

Access-represents the opportunity to use a resource (such as an axe, or to work on the land) without having the authority to make decisions about its use.

Control-represents the full authority to make decisions about the use of a resource.

Step 3: Demonstrate Access to Resources

1. Using 10 stones to represent 10 points, ask the group to indicate relative access to a resource by women and men. For example, 10 stones allocated to women and zero to men indicates that women have exclusive access to a particular resource, five stones to women and five to men indicates that both have equal access. Two stones allocated to women and eight to men indicates that men have more access to a resource than women.

Step 3: Demonstrate Control over Resources

1. Repeat step 2 to determine who has control over each resource, again allocating 10 points between women and men.
2. In some cases, control of a resource may lie outside the household. For instance, an institution determines who receives credit or attends a training course. Such situations are indicated by the term 'others'.

Step 4: Analysis

1. Once it is established who has access to and control over all the different resources on the list, rank the top five resources. Note who has access to and who has control over these five resources and discuss the reasons why.
2. Ask the group to note the types of resources women and men tend to have either access to, or control over, or both.

Step 5: Reflect on the findings.

9.2.3 Access and Control Profiles

Presented below are the Access and Control Profiles for Marsabit and Mandera Counties. In summary, in Marsabit men do not access/ use resources, but women do, yet men exclusively control the resources. In Mandera County, the situation is different as both men and women use and control the resources, including land. These means that the Woman in Mandera are in a better position when it comes to gender equality, power and decision making at household level.

MARSABIT COUNTY

In Marsabit County, women have access to utilization of resources namely: land, Water, Livestock (Milking), Crops, Shelter (Houses), Farming tools and other economic resources. However, the same women do not have control over these resources. The men have overall control these resources. These places women in a vulnerable position in terms of Gender equality because they lack the power and position to make decisions and influence power dynamics in the household level. By controlling ownership of resources, the man automatically controls power and decision making in the household.

Table 12: Access and Control Profiles for Marsabit County

RESOURCES	ACCESS (use) Men	ACCESS (use) Women	CONTROL (ownership) Men	CONTROL (ownership) Women
Land		✓	✓	
Water		✓	✓	
Livestock		✓	✓	
Crops		✓	✓	
Shelter		✓	✓	
Tools/ equipment		✓	✓	
Economic resources (credit, cash income)		✓	✓	
Education			✓	
Health			✓	
Community leadership			✓	
Political representation			✓	
Other				

MANDERA COUNTY

In Mandera county, Women have access and control to resources like land, water, livestock, crops, shelter and farm equipment. These places women in a strong gender position in terms of Gender equality because they have the power and position to make decisions and influence power dynamics in the household level. By controlling ownership of resources, the wife automatically controls power and decision making in the household in partnership with the man.

Table 13: Access and Control Profiles for Mandera County

RESOURCES	ACCESS (use) Men	ACCESS (use) Women	CONTROL (ownership) Men	CONTROL (ownership) Women
Land	✓	✓	✓	✓
Water	✓	✓	✓	✓
Livestock	✓	✓	✓	✓
Crops	✓	✓	✓	✓
Shelter	✓	✓	✓	✓
Tools/ equipment	✓	✓	✓	✓
Economic resources (credit, cash income)	✓	✓	✓	✓
Education	✓	✓	✓	✓
Health	✓	✓	✓	✓
Community leadership	✓	✓	✓	✓
Political representation	✓	✓	✓	✓
Other				

9.2.4 Opportunities and Constraints

Opinions on factors that presented opportunities or acted as constraints to both women and men were sought, and are presented below for the Counties of Marsabit and Mandera.

MARSABIT COUNTY

Key opportunities for women are related to access of resources like young livestock, land, crops and farming tools. This ensures that the household is food secure and nutritionally secure. Extra harvest can be sold or traded to bring income. Combined with affirmative action in the new constitution through devolution, women have an opportunity of taking up leadership positions in the community through welfare groups and other county government structures. There is need to raise awareness on need to educate the girl child while using 'influential Men' in the community as change agents.

Table 14: Opportunities and Constraints for Marsabit County

Women		Men	
Opportunities	Constraints	Opportunities	Constraints
Many activists that support the girl child	Cultural barriers- The boy is still preferred to the girl as his seen as the "inheritor "of the family tree	Adult education for Men	Most time spent away from home in search of water & pasture for livestock
Women have access to young livestock, land, crops and farming tools	African tradition favours the position of men to control resources i.e resources that women could use as collateral to get loans from women groups.	Traditional leadership support	Recurrent conflict due to pastoralism has led to many loss of lives. These has weakened the traditional leadership structure
Leadership support, e.g. Constitution of Kenya + Consideration of gender representation	Position of women in the society, where the man is the head of the family and the woman is the neck	Increased cultivation, food production and animal husbandry	Severe drought, impacts of climate change have led to losses in crop and livestock systems
Most are passionate about adult education and could learn from CBOs, NGOs.	Women don't have the time (tight Activity schedule) to attend adult education.	Men control key capital resources that can create wealth and create businesses for HHs	Lack of entrepreneurship skills, financial capital and collateral for loans

MANDERA COUNTY

Table 15: Opportunities and Constraints for Mandera County

Women		Men	
Opportunities	Constraints	Opportunities	Constraints
Women empowerment	Inadequate women empowerment opportunities	Education	Poverty
Gender mainstreaming	Cultural norms and beliefs	Employment opportunities	Inadequate job opportunities
County government support	Low membership of women in groups	Leadership	Negotiated democracy
Capacity building of women for sustainable development	Decision-making is dominated by men	Decision makers	Equal sharing of scarce resources
NGO programs	Men considered more knowledgeable	Head of family	Unemployment
Enactment of 1/3 gender rule	Lack of political goodwill	Diverse business ideas	Lack of trading capital
Education	Early girl child marriage	Ownership of family resources	Disagreement amongst family members
Employment	Late schooling	Polygamy	Lack of financial capability
Linking and bridging social capital	Lack of labour and time saving household technology		
Joint ownership of family resources	Low social capita among women, hindering enhancement of women in politics and finance		

9.3 Mid Tana River Landscape Site

9.3.1 Activity Schedules

Presented below are the Activity Schedules for Tharaka Nithi, Kitui and Tana River Counties. In Tharaka Nithi County, land clearing is undertaken by men and boys only, while women and girls cultivate the crops. Only men and boys also take care of livestock. Women are charged with most of the household activities.

In Kitui County, girls only participate in land clearing and household activities. Only men take the leadership role, while both men and women participate in community activities.

In Tana River County, girls participate in land clearing, community activities and household activities. Only men take the leadership role, while women carry out most of the household activities.

THARAKA NITHI COUNTY

In Tharaka County, land clearing is done predominantly by Men and Boys. It is viewed as a male chore. While crop cultivation is viewed as woman job assisted by the Girls. Trade and commerce is carried out by both Men and Woman. Both take part in earning income for the family with majority of men employed in formal jobs.

Table 16: Activity Schedules for Tharaka Nithi

ECONOMIC ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Land clearing	<input type="checkbox"/>		<input type="checkbox"/>		6 (M-4, B-2)
Crop cultivation		<input type="checkbox"/>		<input type="checkbox"/>	6 (W-4, G-2)
Livestock care	<input type="checkbox"/>		<input type="checkbox"/>		10 (M-6, B-4)
Trade/ commerce	<input type="checkbox"/>	<input type="checkbox"/>			8 (M-4, F-4)
Formal sector employment	<input type="checkbox"/>				8 (Male-8hrs)
Informal sector activities		<input type="checkbox"/>			9 (W-9hrs)

COMMUNITY ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Assistance to disadvantaged persons		<input type="checkbox"/>		<input type="checkbox"/>	10 (W-4, G-6)
Cultural/ religious ceremonies (births, marriages & burials)	<input type="checkbox"/>	<input type="checkbox"/>			4 (M-2, W-2)
Community meetings	<input type="checkbox"/>	<input type="checkbox"/>			3 (M-2 W-1)
Other (political involvement)	<input type="checkbox"/>				10 (M-10 hrs)

HOUSEHOLD ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Leadership	<input type="checkbox"/>		<input type="checkbox"/>		8 (M-6, B-2)
Maintenance & repair of house	<input type="checkbox"/>		<input type="checkbox"/>		6 (M-3, B-3)
Family care	<input type="checkbox"/>	<input type="checkbox"/>			10 (M-4, W-6)
Child care		<input type="checkbox"/>		<input type="checkbox"/>	12 (W-8hrs, G-4hrs)
Hygiene		<input type="checkbox"/>		<input type="checkbox"/>	8 (W-4hrs, G-4hrs)
Health-related issues		<input type="checkbox"/>	<input type="checkbox"/>		4 (W-2, G-2)
Collecting fuel wood		<input type="checkbox"/>		<input type="checkbox"/>	2 (W-1, G-1)
Assuring water supply		<input type="checkbox"/>			4 (W-4 hrs)
Buying/ sourcing of food	<input type="checkbox"/>	<input type="checkbox"/>			5 (M-2hrs, W-3hrs)
Food preparation		<input type="checkbox"/>		<input type="checkbox"/>	2-3 (W-2hrs, G-1hrs)

KITUI COUNTY

In Kitui county, land clearing and cultivation is a family affair done by all members. This is meant to allow for larger farms and more crops to be cultivated in light of the severe drought and limited rains that are experienced in this area. Crop cultivation is seen as the main source of food and income therefore meaning more concerted effort is put together to feed the household. Majority of Men and Women in Kitui also participate in small trade and commerce related to wood carving and basket making. Kitui county is a leading producer of wood carvings and baskets in Kenya.

Table 17: Activity schedule for Kitui County

ECONOMIC ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Land clearing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6 (M-3, W-1, B-1, G-1)
Crop cultivation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		6 (M-2, W-2, B-2)
Livestock care	<input type="checkbox"/>				10 (M-10hrs)
Trade/ commerce	<input type="checkbox"/>	<input type="checkbox"/>			8 (M-6hrs, W-2hrs)
Formal sector employment	<input type="checkbox"/>	<input type="checkbox"/>			8 (M-6hrs, W-2hrs)
Informal sector activities	<input type="checkbox"/>	<input type="checkbox"/>			8- (M-6hrs, F-2hrs)

COMMUNITY ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Assistance to disadvantaged persons		<input type="checkbox"/>			12 (W-12hrs)
Cultural/ religious ceremonies (births, marriages & burials)	<input type="checkbox"/>	<input type="checkbox"/>			8 (M-6hrs, F-2hrs)
Community meetings	<input type="checkbox"/>	<input type="checkbox"/>			6 (M-4hrs, F-2hrs)
Other (political involvement)	<input type="checkbox"/>	<input type="checkbox"/>			2 (M-1, F-1)

HOUSEHOLD ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Leadership	<input type="checkbox"/>				12 (M-12hrs)
Maintenance & repair of house		<input type="checkbox"/>	<input type="checkbox"/>		12 (W-6hrs, B-6hrs)
Family care		<input type="checkbox"/>			12 (W-12hrs)
Child care		<input type="checkbox"/>		<input type="checkbox"/>	12 (W-6, G-6)
Hygiene		<input type="checkbox"/>		<input type="checkbox"/>	12 (W-6, G-6)
Health-related issues		<input type="checkbox"/>		<input type="checkbox"/>	12 (W-6, G-6)
Collecting fuel wood		<input type="checkbox"/>		<input type="checkbox"/>	4 (W-2, G-2)
Assuring water supply		<input type="checkbox"/>		<input type="checkbox"/>	4 (W-2, G-2)
Buying/ sourcing of food	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	2 (M-1, W-1)
Food preparation		<input type="checkbox"/>		<input type="checkbox"/>	3 (W-2, G-1)

TANA RIVER COUNTY

Table 18: Activity schedule for Tana River County

ECONOMIC ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Land clearing	<input type="checkbox"/>		<input type="checkbox"/>		4 (M-3, B-1)
Crop cultivation		<input type="checkbox"/>		<input type="checkbox"/>	2 (W-1, G-1)
Livestock care	<input type="checkbox"/>		<input type="checkbox"/>		10 (M-6, B-4)
Trade/ commerce		<input type="checkbox"/>			10 (W-10hrs)

ECONOMIC ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Formal sector employment	<input type="checkbox"/>	<input type="checkbox"/>			8 (M-4hrs, W-4hrs)
Informal sector activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		8 (M-4hrs, W-2hrs, B-2hrs)
Other					

COMMUNITY ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Assistance to disadvantaged persons		<input type="checkbox"/>		<input type="checkbox"/>	1 (W-1)
Cultural/ religious ceremonies (births, marriages & burials)		<input type="checkbox"/>		<input type="checkbox"/>	2 (W-1,G-1)
Community meetings	<input type="checkbox"/>	<input type="checkbox"/>			2 (M-1, W-1)
Other (political involvement)	<input type="checkbox"/>				6 (M-6hrs)

HOUSEHOLD ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Leadership	<input type="checkbox"/>				12 (M-12hrs)
Maintenance & repair of house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3 (M-1, W-1,B-1)
Family care		<input type="checkbox"/>		<input type="checkbox"/>	12 (W-6hrs, G-6hrs)
Child care		<input type="checkbox"/>		<input type="checkbox"/>	12 (W-6hrs, G-6hrs)
Hygiene		<input type="checkbox"/>		<input type="checkbox"/>	12 (W-6hrs, G-6hrs)
Health-related issues	<input type="checkbox"/>	<input type="checkbox"/>			2 (M-1, -1)
Collecting fuel wood		<input type="checkbox"/>		<input type="checkbox"/>	4 (W-2, G-2)
Assuring water supply		<input type="checkbox"/>		<input type="checkbox"/>	2 (W-1, G-1)
Buying/ sourcing of food	<input type="checkbox"/>	<input type="checkbox"/>			5 (M-2, W-3)
Food preparation		<input type="checkbox"/>		<input type="checkbox"/>	1 (W-1)

9.3.3 Access and Control Profiles

Presented below are the Access and Control Profiles for Tharaka Nithi, Kitui and Tana River Counties. In Tharaka Nithi County, men and women use most of the resources, but control of most of the resources is taken by men. Only water and crops are owned by women.

Similarly, in Kitui County, both men and women use most of the resources. Control of most of the resources is taken by men, but women also control some resources, particularly water and crops.

In Tana River County, men access and control almost all the resources, except water, which is accessed and controlled by women.

THARAKA NITHI COUNTY

In Tharaka Nithi County, Women have access to utilization of resources namely: land, Water, Livestock (Milking), Crops, Shelter (Houses), Farming tools and other economic resources. However, the same women do not have control over these resources. The men have overall control these resources. This places women in a vulnerable position in terms of Gender equality because they lack the power and position to make decisions and influence power dynamics in the household level. By controlling ownership of resources, the man automatically controls power and decision making in the household.

NB: Women have a unique control and ownership of water and crops. This means that women gender status can be improved by leveraging on their opportunity to control what is cultivated and sold in the market as surplus. The surplus produce will bring income and enable them to participate in welfare groups, SHGs and CBOs. They are also able to take up collateral loans using crops sold in the market.

Table 19: Access and Control Profiles for Tharaka Nithi

RESOURCES	ACCESS (use) Men	ACCESS (use) Women	CONTROL (ownership) Men	CONTROL (ownership) Women
Land	✓		✓	
Water	✓	✓	✓	✓
Livestock	✓		✓	
Crops	✓	✓		✓
Shelter	✓	✓	✓	
Tools/ equipment	✓	✓	✓	
Economic resources (credit, cash income)	✓	✓	✓	
Education	✓	✓	✓	
Health	✓	✓	✓	
Community leadership	✓		✓	
Political representation	✓			
Other				

KITUI COUNTY

In Kitui County, Women have access to utilization of resources namely: land, Water, Livestock (Milking), Crops, Shelter (Houses), Farming tools and other economic resources. However, the same women do not have control over these resources. The men have overall control these resources. This places women in a vulnerable position in terms of Gender equality because they lack the power and position to make decisions and influence power dynamics in the household level. By controlling ownership of resources, the man automatically controls power and decision making in the household.

NB: Women have a unique control and ownership of water and crops. This means that women gender status can be improved by leveraging on their opportunity to control what is cultivated and sold in the market as surplus. The surplus produce will bring income and enable them to participate in welfare groups, SHGs and CBOs. They are also able to take up collateral loans using crops sold in the market.

Table 20: Access and Control Profiles for Kitui County

RESOURCES	ACCESS (use) Men	ACCESS (use) Women	CONTROL (ownership) Men	CONTROL (ownership) Women
Land	✓	✓	✓	
Water	✓	✓		✓
Livestock	✓	✓	✓	
Crops	✓	✓		✓
Shelter	✓	✓	✓	
Tools/ equipment	✓	✓	✓	
Economic resources (credit, cash income)	✓	✓	✓	
Education	✓	✓	✓	✓
Health	✓	✓		✓
Community leadership	✓	✓	✓	✓
Political representation	✓	✓	✓	✓
Other				

TANA RIVER COUNTY

Compared to other counties mentioned above, Women here are most marginalized and affected when it comes to access and control of resources. Tana River Women have only access to one resource: water and no control over all resources. They have the least power to influence decisions at household and community level compared to other counties. This is a highly male dominated community with Women at the bottom echelons of decision making and development.

NB: The project should raise awareness of access and control of resources through the county government act and devolution structures at county government.

Table 21: Access and Control Profiles for Tana River County

RESOURCES	ACCESS (use) Men	ACCESS (use) Women	CONTROL (ownership) Men	CONTROL (ownership) Women
Land	✓		✓	
Water		✓		✓
Livestock	✓		✓	
Crops	✓		✓	
Shelter	✓		✓	
Tools/ equipment	✓		✓	
Economic resources (credit, cash income)	✓		✓	
Education	✓		✓	
Health	✓		✓	
Community leadership	✓		✓	
Political representation	✓		✓	
Other				

9.3.4 Opportunities and Constraints

Opinions on factors that presented opportunities or acted as constraints to both women and men were sought, and are presented below for the Counties of Tharaka Nithi, Kitui and Tana River.

THARAKA NITHI COUNTY

Key opportunities: Education, leadership and political representation, strong traditional marriage culture, many self-help groups and CBOs for Women.

Constraints: Strong cultural beliefs about a woman as a homemaker, lethargy by women to take up leadership positions even after devolution. For men, inadequate climate smart agriculture skills, lack of business skills and marketing opportunities in agriculture, Miraa culture and drug use.

Table 22: Opportunities and Constraints in Tharaka Nithi County

Women		Men	
Opportunities	Constraints	Opportunities	Constraints
Education	Cultural factors – beliefs of women as home makers	Entrepreneurship	Unemployment
Community leadership/ political representation	Girls are a source of wealth to parents therefore married off early	Construction raw materials and related activities	No ready market for products
Entrepreneurship	Inadequate funds to pay school fees	Crop farming activities & fertile agro-ecological zones	Lack of business oriented skills and knowledge to produce and market more
Affirmative action- 1/3 Gender Rule-Constitution	Belief and perception that women are incapable of doing things	Numerous rivers and streams harbouring fish	Lack of financial capital resources to explore fishing opportunity
Strong traditional marriage culture has strengthened the marriage institution	Globalization – time pressure/ shifts and relocation of offices to towns/ cities/ other countries creates a barrier for women with families and working spouses	Potential non-wood forest products high	Skilled worker shortage
More women education and job promotion opportunities	Workplace discrimination/ prejudice – top management claims that women don't desire to excel in their current job positions	A big population is made up of youth who have finished form Four.	Inadequate technical institutions
Most Self-Help groups and CBOs formed by Women	Lack of business oriented skills and knowledge	Practice Sustainable agriculture	Inadequate knowledge and skills on climate smart agriculture

KITUI COUNTY

Table 23: Opportunities and Constraints in Kitui County

Women		Men	
Opportunities	Constraints	Opportunities	Constraints
Community based enterprises	Cultural bias	Leadership control	Illiteracy
Community based organizations	Weak mechanisms of information dissemination	Community based enterprises	Weak mechanisms of information dissemination
Cooperatives	Illiteracy	Community based organizations	Lack of entrepreneurship skills
Women Enterprise Fund	Inadequate economic power	Cultural recognition and acceptance about wood carving	Deforestation and disappearance of preferred trees for carving
Affirmative Action Plan	Men traditionally view women as subordinates		

TANA RIVER COUNTY

Table 24: Opportunities and Constraints in Tana River County

Women		Men	
Opportunities	Constraints	Opportunities	Constraints
Business entrepreneurship	Illiteracy and low leadership capacity	Availability of natural resources within the County	Alcoholism/ drug and substance abuse among young men
Table banking for women	Lack of capital to do business	Devolution will create job opportunities	Global climatic change leading to deterioration of crop produce
Socio-economic activities, e.g. agri- business	Restrictive cultural and religious beliefs that Women should not take the lead but Men should in such businesses	Upscaling of cash transfer for elderly persons	Community sees as an undignified way for the elderly to receive help and unsustainable lifestyle
Devolution (governance system) has created opportunities for women leadership in the County	Women still view themselves as lesser men and can't take elective positions	Cash for Asset i.e terracing, livestock	Most men and boys are unwilling to do hard work. Prefer sitting idle and chewing miraa

Women		Men	
Opportunities	Constraints	Opportunities	Constraints
Untapped natural resources available within the County, e.g. river sand, water source, minerals, etc.	Lack of empowerment in leadership and governance	County development project and planning platforms	Lack of capital due to poverty levels
Access to micro-finance facilities for loans/ borrowing (Women Fund and County Devolved Fund)	No gender equality and parity in sharing or distribution of resources	Microfinance enterprises for loan borrowing	Large extended family burden
Women venturing in crafting skills/ basket weaving industry	Climate change and inflation of the economy has a negative effect on women	Establishment/ construction of new business markets in the sub- Counties	Limited resources from the County government to support income generating projects
Participating in Self-Help groups and CBOs, table banking etc.	The burden of child bearing and family care	The presence of minor irrigation schemes	Political bad will
1/3 Gender rule- devolution and constitution	Lack of participation/ decision making in development projects in the county		
High child birth rate because of traditional culture that practices natural family planning	HIV/AIDS and maternal/ child health care is a burden		

9.4 Chyulu Hills Landscape Site

Presented below are the Activity Schedules for Taita Taveta County. Information for Makueni and Kajiado Counties was not available by the time of preparation of this report. In Taita Taveta County, men are primarily engaged in livestock care and formal sector employment under economic activities, participate in most community activities, and maintain/ repair the house as well as provide leadership of the home. Women are involved in most economic activities except livestock care, as well as most community and household activities. Boys and girls are involved in land clearing and crop cultivation only.

9.4.1 Activity Schedules

9.4.1.1 TAITA TAVETA COUNTY

Land clearing and crop cultivation is carried out by Women, Boys and Girls while livestock care is done by Men.

Table 25: Activity Schedules for Taita Taveta County

ECONOMIC ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Land clearing		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8 (W-4, B-2, G-2)
Crop cultivation		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6 (W-3, B-2, G-1)
Livestock care	<input type="checkbox"/>				8 (M-8hrs)
Trade/ commerce		<input type="checkbox"/>			8 (W-8hrs)
Formal sector employment	<input type="checkbox"/>	<input type="checkbox"/>			8 (M-5hrs, W-3hrs)
Informal sector activities		<input type="checkbox"/>			4-(W-4hrs)
Other					

COMMUNITY ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Assistance to disadvantaged persons		<input type="checkbox"/>			1 (W-1hr)
Cultural/ religious ceremonies (births, marriages & burials)	<input type="checkbox"/>	<input type="checkbox"/>			5 (M-3hr, W-2hrs)
Community meetings	<input type="checkbox"/>	<input type="checkbox"/>			4 (M-2, W-2)
Other (political involvement)	<input type="checkbox"/>				3 (M-3hrs)

HOUSEHOLD ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Leadership	<input type="checkbox"/>	<input type="checkbox"/>			18 (M-12hrs, W-6hrs)
Maintenance & repair of house	<input type="checkbox"/>				0.5 (M-0.5)
Family care		<input type="checkbox"/>			16 (W-16hrs)
Child care		<input type="checkbox"/>			14 (W-14hrs)

HOUSEHOLD ACTIVITIES	Men	Women	Boys	Girls	Time spent daily (hours)
Hygiene		<input type="checkbox"/>			4 (W-4hrs)
Health-related issues		<input type="checkbox"/>			1 (W-1hr)
Collecting fuel wood		<input type="checkbox"/>			2 (W-2hr)
Assuring water supply		<input type="checkbox"/>			4 (W-4hr)
Buying/ sourcing of food		<input type="checkbox"/>			3 (W-3hrs)
Food preparation		<input type="checkbox"/>			6 (W-6hrs)

9.4.2 Access and Control Profiles

Presented below are the Access and Control Profiles for Taita Taveta County. Men are able to access all resources, while women are also able to access most resources, except livestock, shelter, economic resources, community leadership and political representation. On the other hand, men control all the resources except water and crops, while women control water, crops, education and health.

TAITA TAVETA COUNTY

Women have access to utilization of resources namely: land, Water, Livestock (Milking), Crops, Shelter (Houses), Farming tools and other economic resources. However, the same women do not have control over these resources. The men have overall control these resources. This places women in a vulnerable position in terms of Gender equality because they lack the power and position to make decisions and influence power dynamics in the household level. By controlling ownership of resources, the man automatically controls power and decision making in the household.

NB: Women have a unique control and ownership of water, education, health and crops. This means that women gender status can be improved by leveraging on their opportunity to control what is cultivated and sold in the market as surplus, water, education and health.

Table 26: Access and Control Profiles for Taita Taveta

RESOURCES	ACCESS (use) Men	ACCESS (use) Women	CONTROL (ownership) Men	CONTROL (ownership) Women
Land	✓	✓	✓	
Water	✓	✓		✓
Livestock	✓		✓	
Crops	✓	✓		✓
Shelter	✓		✓	
Tools/ equipment	✓	✓	✓	
Economic resources (credit, cash income)	✓		✓	
Education	✓	✓	✓	✓
Health	✓	✓	✓	✓
Community leadership	✓		✓	
Political representation	✓		✓	
Other				

9.4.3 Opportunities and Constraints

Opinions on factors that presented opportunities or acted as constraints to both women and men were sought, and are presented below for Taita Taveta County.

TAITA TAVETA COUNTY

Table 27: Access and Control Profiles for Taita Taveta

Women		Men	
Opportunities	Constraints	Opportunities	Constraints
Alternative livelihoods	Access to capital	Use of land optimally	Land use plans
Alternative technology	Capacity building	Animal user rights	Access methods for animal user rights
Increase in safe use of biodiversity	Access to markets	Artisanal mining	Unfair trade practices
Cottage industries	Access to post harvest storage	Livestock rearing (commercial)	Inadequate technical skills for formal employment
Sale of agricultural produce	Technology enhancement	Formal employment	Low access to capital
Formal employment	Lack of technical skills	Large scale mining	Low technical knowledge
Tour guiding	Gender based violence and traditional beliefs	Tourism enterprises	Alcohol and drug abuse
Safer use/ refuse recycling	Weak enforcement of laws and by laws	Conservation as a business	Lack of climate smart agriculture
Alternative packaging materials, leading to access to markets	Competition from other markets	Grazing in ranches	Lack of rangeland management practices
Arts and crafts	Lack of market	Construction industry	
Exploitation of clean energy, leading to access to capital and technical know-how	Lack of financing capital	Exploitation of clean energy, leading to access to capital and technical know-how	Lack of financing capital

10 Summary of gender domains relationships across the priority landscapes

Table 28: Gender domains relationships across landscapes

Domains	Moyale-Wajir Banisa Landscape Site	North Hills	Sabarwawa Land Scape Site	Mid Tana River Landscape Site	Chyulu Hills Landscape Site
Access	<p><input type="checkbox"/> Limited access to economic assets, Women support the Men in land clearing however most of their daily time is spent on family care related activities.</p>	<p><input type="checkbox"/> Women have access to utilisation of resources but limited control.</p>	<p><input type="checkbox"/> Men and Woman both take part in earning income for the family with majority of men employed in formal jobs</p>	<p><input type="checkbox"/> Women have access to utilisation of resources but limited control.</p>	
Knowledge, beliefs & perceptions	<p><input type="checkbox"/> Most women have unequal education or knowledge, land is owned by men, mostly a patriarchal society, women and girls viewed as less important to get education compared to men.</p>	<p><input type="checkbox"/> Most women have unequal education or knowledge, land is owned by men, mostly a patriarchal society, women and girls viewed as less important to get education compared to men.</p>	<p><input type="checkbox"/> Strong cultural beliefs about a woman as a homemaker, lethargy by women to take up leadership positions</p>	<p><input type="checkbox"/> Most women have unequal education or knowledge, land is owned by men, mostly a patriarchal society</p>	
Practices & participation	<p><input type="checkbox"/> There is low enrolment and high drop-out rates in schools for girls, girls travel long distances in search of fuel wood and water</p>	<p><input type="checkbox"/> Women are culturally allowed to take care of young livestock, land, crops and farming tools</p>	<p><input type="checkbox"/> Women have a unique control and ownership of water and crops, women and men participate in welfare groups, SHGs and CBOs</p>	<p><input type="checkbox"/> women are culturally allowed to take care of land, crops and farming tools</p>	
	<p><input type="checkbox"/> Women perform all domestic chores & take care of children- time poverty is a big issue</p>	<p><input type="checkbox"/> Women perform all domestic chores & take care of children, cattle rustling, and cattle raiding is common. FGM is common.</p>	<p><input type="checkbox"/> Women perform all domestic chores & take care of children, cattle rustling, and cattle raiding is common. FGM is common.</p>	<p><input type="checkbox"/> Women perform all domestic chores & take care of children- time poverty is a big issue</p>	
Legal rights	<p><input type="checkbox"/> 83% of inhabitants lack title deeds with women being majority. Women have less control over land resources</p>	<p><input type="checkbox"/> Women have less control over land resources.</p>	<p><input type="checkbox"/> Women have less control over land resources and lack title deeds or the right to own land</p>	<p><input type="checkbox"/> Women have less control over land resources and lack title deeds or the right to own land</p>	
Power & decision making	<p><input type="checkbox"/> Women have less control of land with 80% land used as grazing land by the pastoralists majority being men, Customary law, cultural attitudes and rigidity to gender roles overburden women</p>	<p><input type="checkbox"/> lack the power and position to make decisions and influence power dynamics in the household</p>	<p><input type="checkbox"/> Women have less control of land and lack title deeds, Customary law, cultural attitudes and rigidity to gender roles overburden women</p>	<p><input type="checkbox"/> Women have less control of land and livestock with land used for crop farming and livestock grazing land by the pastoralists majority being men.</p>	

11 Legal and Administrative Framework Protecting Women and Protecting Gender Equality

11.1 Legal framework Protecting Women Gender Equality

Since its adoption in 1994, the UNCCD has been recognized as the only multilateral agreement on the environment that addresses gender issues, because of its explicit focus on the roles of women (Poulsen, 2003). Though many countries have implemented activities to foster women's empowerment or gender mainstreaming as part of their national action programmes, others have not yet developed plans to promote gender equality. The Millennium Development Goals and the International Year of Deserts and Desertification urge governments to take action on reducing poverty and promoting gender equality. The Millennium Declaration has reconfirmed the commitment to gender equality already embodied in the Convention on the Elimination of All Forms of Discrimination against Women and the Beijing Platform of Action and presents new opportunities to link solutions to poverty with gender equality. In addition, Kenya is party to various international and regional gender instruments, which demonstrates the Government's commitment to attaining gender equity and equality. These instruments include the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW); the Beijing Platform for Action; the AU Heads of State Solemn Declaration on Gender Equality in Africa; and the Optional Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa.

On 27th August 2010, Kenya promulgated a new constitutional dispensation. This was hailed as the second republic. It ended the 20 years old struggle by Kenyan's clamouring for a new constitutional order. It among other things brought in recognition women's rights as human rights. The principle of equality and non-discrimination is established as a core value of leadership. The decentralization of power created 47 County governments this has revolutionized leadership at the lower level, bringing many women into public leadership space.

Other additional gains for women from the 2010 Constitution include:

- Equality in leadership with 33% as the critical mass preferred for women leadership
- Equality in marriage
- Equality in employment
- Equality in access to education
- All discriminatory customary practices are prohibited
- Matrimonial property is protected
- Women rights to inheritance and to own land is guaranteed
- Equal parental responsibility
- Requirement for both public and private entities to comply with the inclusion principles and gender.

The Constitution of Kenya (2010) under the Bill of Rights (Chapter 4) recognizes the rights and fundamental freedom of all citizens, and guarantees equality and freedom from discrimination on any ground, including sex. Furthermore, Article 27 in the Bill of Rights stipulates that women and men have the right to equal treatment including the right to equal opportunities in political, economic, cultural and social spheres.

The Government has established various institutions with specific mandates to promote gender equality and equity and empowerment of women and men in the development process. These include the Directorate of Gender in the Ministry of Devolution and Planning, National Gender and Equality Commission (NGEC), Kenya National Human Rights Commission (KNHRC) and the Anti-Female Genital Mutilation (FGM) Board. Gender equality and empowerment of women

is a priority in Vision 2030 and the 2nd Medium Term Plan. Some interventions in these policy documents are being implemented through the Ministry of Devolution and Planning. They include: Finally, to promote the realization of gender equality and empowerment of women whilst also tracking progress in the realization of the Sustainable Development Goal (SDG) 5 (Achieve gender equality and empower all women and girls); Majority of County Health Services have since established a gender mainstreaming committee which has further developed gender mainstreaming guidelines to fast track the purpose of gender mainstreaming within the County Health Services and hence achieving the County's vision of a city of choice for all to invest, work and live.

11.2 Institutional Framework to promote gender equality and freedom from Discrimination

In order to facilitate implementation of gender equality and freedom from discrimination, the government has put in place the State Department of Gender under the Ministry of public service, Youth and Gender with the full mandate to:

- Institutionalize gender mainstreaming in ministries, departments and agencies as well as in the devolved county level and private sector;
- Promote the development and review of gender policies and legislations
- Promote research, collection and analysis, storage and dissemination of sex disaggregated data to inform programming
- Coordinate programmes for reduction of Sexual and Gender Based Violence (SGBV)
- Oversee the implementation of socio-economic empowerment for the benefit of women and youth
- Set standards to build the capacity of National and County level actors, monitor compliance and report on progress in ensuring accountability on equality and non-discrimination.

The Constitution established an independent commission, the National Gender and Equality Commission with the mandate to promote gender equality and freedom from discrimination and to hold the government accountable on implementation. At parliamentary level, two female parliamentary caucuses are in existence. These are the Kenya Women Parliamentarians Association - KEWOPA and the Kenya Women Senators Association-KEWOSA. The two contribute to Parliament's work in the area of integrating gender into laws and policies. Similar caucuses are also established in the 47 County Assemblies.

Civil Society Organizations (CSOs), private sector and religious organizations are also responsible for both implementation and act as accountability bodies in measuring service delivery on the not more than two third gender principle. It would be important to anchor the gender-mainstreaming mandate within a specific parliamentary committee for effectiveness. In the 11th parliament the Labour and Social Welfare Committee was charged with the responsibility of gender equality but its engagement was only limited to discussing budgets.

The Kenyan poverty levels are very high with women bearing the brunt. Women are unable to access credit that requires collateral which majority do not have. Feminization of poverty is experienced across all regions. Women with disability and women with HIV and AIDS suffer the consequences. The Government of Kenya has put in place various programmes to empower women to overcome poverty, access leadership, begin businesses and live decently. The programmes include gender mainstreaming, affirmative action and gender responsive budgeting. There are special catalytic funds dedicated to women, persons with disabilities and the youth for development programmes. These are: -

- a) **Women Enterprise Fund (WEF)** that provides micro-finance credit and other financial support for women;
- b) **The Youth Enterprise Development Fund (YEDF)** that provides credit for young men and women to enable them establish businesses to earn a living aimed at reducing unemployment;
- c) **The Uwezo fund (Kiswahili word for Ability)** that empowers women, persons with disabilities and youth that give seed money to the special interest groups as startup capital for businesses. It gives up to 5000 USD to one group.
- d) **The Social Protection Fund** is given as credit and cash transfers to older members of society and people with severe disability. The target is for senior citizens beyond age 65 years.
- e) **30% procurement reservation affirmative action to Special Interest Groups (SIG)** that include women, persons with disabilities and the youth. The SIG access 30 % value of all all-public procurement tenders
- f) **There is the national Government Affirmative Action Fund**, established in 2015 administered through female members of parliament to run programs targeting socio-empowerment of women, youth, persons with disabilities, children and elderly persons.
- g) **The Performance Contracts** for all Ministries, Departments and Agencies have also incorporated gender mainstreaming targets.
- h) In ensuring accountability on equality and non-discrimination, the Constitution established an independent commission, **the National Gender and Equality Commission** with the mandate to promote gender equality and freedom from discrimination and to hold the government accountable on implementation.

12 Resilience of communities dependent on drylands ecosystems which are vulnerable to climate change

Dryland communities rely highly on ecosystem services, both directly and indirectly, to secure their livelihoods. The same ecosystems face a myriad of threats from urbanisation, expansion of unsustainable farming settlements, degraded fragile soils and effects of climate change (UNDP, 2009). The livestock sector in Africa, for example, is being affected by climate change, leading to a decline in feed and fodder production, water availability and increased disease prevalence in drylands (WISP, 2010).

To survive these changing trends, pastoralists employ a number of highly resilient climate change strategies to safeguard their herds in the face of unpredictable and sometimes extreme climatic events, disease outbreaks and social unrest. These resilience strategies try to promote the rational use of the natural resource base on which the herds depend on while building strong social networks (Hesse and MacGregor, 2006):

Some of these strategies include:

- Building up herd size as insurance against times of hardship.
- Splitting herds across different locations and movement patterns to spread risks from lack of grazing and exposure to diseases etc
- Keeping different species and breeds to make use of different ecological niches;
- Selecting animals for different traits that enable survival in prevalent conditions;
- Loaning surplus animals to family and friends for their subsistence requirements and building of their herd, to develop and strengthen social relations as a form of social capital.
- Matching the number of animals to the availability of natural pastures and water.

Although pastoralist livelihood strategies are adaptive to changing climates vis a vis dynamic mobility in search of water and pasture, this mobility is declining over the years and undermining community resilience and their vulnerability. (Dasgupta et al, 2014). When establishing water points, planners have overtime failed to consider the routes of traditional migration pathways for livestock. This has caused increased land degradation in surrounding areas (IFAD, 2009). Secondly conflict, cross-border or quasi-traditional conflicts due to raiding of livestock are other stressors, which increase vulnerability to drought and put pressure on supporting ecosystems (Morton, 2007).

Increasing population pressure can also undermine the self-sufficiency of pastoral communities (IFAD, 2009). For African pastoralists, all members of the family have to contribute to the family unit's livelihood security. The vulnerability of pastoralists to climate change is 'induced vulnerability', (Krätli et al., 2013). In other words, it is not an inherent vulnerability, but the result of external multiple pressures – social, economic, environmental and political – which lead to 'encroachment on rangelands; inappropriate land policy; undermining of pastoral culture and values; and economic policies promoting uniformity and competition over diversity and complementarity' (IPCC, 2014, p637).

Many drylands suffer from conflicts and insecurity: 80 percent of major armed conflicts occur within their borders, which adds to existing vulnerabilities (Middleton et al, 2011). Short-lived insecurity can exacerbate existing vulnerabilities, and there are also longer-term conflicts which can undermine the achievement of development goals (Middleton, et al, 2011). The mobility which is so important to pastoralist ways of life also makes them vulnerable to conflict or a fear of conflict, which can impede their access to markets and to critical natural resources (IFAD, 2009).

Pressures on land and natural resources, plus increasing poverty have led to increased livestock raiding as pastoralists seek to secure bride wealth payments (Kipuri and Ridgewell, 2008).

In northern Kenya a range of coping strategies for responding to drought and longer-term adaptive strategies can be identified (Morton, 2007), including:

- 1) Mobility, herd accumulation
- 2) Multi-species herds to exploit different ecological niches
- 3) The combined labour of men, women and children'
- 4) Informal savings and credit mechanisms through shopkeepers and bank accounts
- 5) Use of supplementary feed for livestock and intensification of animal disease management via both indigenous and scientific methods
- 6) Payment for water from powered boreholes
- 7) Livelihood diversification such as charcoal production
- 8) Intracommunity mechanisms for sharing livestock products
- 9) Use of live animals to assist the poorest although this may be declining as risk levels rise within communities.

13 Resilience as demonstrated in the project area

The resilience analysis was carried out for the initially identified four project landscapes namely Moyale-Wajir North Banisa Hills; Sabarwawa; Mid Tana River; and Chyulu Hills. These landscapes were reduced to two landscapes namely 1) the Mid Tana River and Sabarwawa landscapes and the 2) Chyulu Hills landscape.

More threats as well as specific coping strategies are presented in the tables below for each of the project intervention areas.

13.1.1 Moyale-Wajir North Banisa Hills Landscape Site

Table 29: Moyale-Wajir North Banisa Hills Landscape Site

Marsabit	Wajir	Mandera
<p>County faces drought and floods. County has a high ranking in Climate Change Variability Index (CCVI) with 0.39 for exposure, 0.25 for sensitivity and 0.31 for adaptive capacity.</p> <p>Measures include traditional early warning systems, advocacy campaigns, and county information sharing forums.</p>	<p>County experiences floods, droughts, fires, soil erosion, desertification, HIV/AIDS, terrorism and conflicts.</p> <p>CCVI of 0.43</p>	<p>County experiences floods, droughts, and diseases.</p>

13.1.2 Sabarwawa Land Scape Site

Table 30: Sabarwawa Landscape Site

Samburu	Isiolo	Marsabit
<p>County faces constant threats of drought, wildfires and cattle rustlers. Measures include the provision of relief food (WFP), quick reporting fire incidents, provision of security by arming home guards and police reservists, as well as precautionary measures that include encouraging pastoralists to dispose of their animals when an early warning alert is issued</p>	<p>County experiences floods, droughts, fires, soil erosion, desertification, HIV/AIDS, terrorism and conflicts.</p>	<p>County faces drought and floods. County has a high ranking in Climate Change Variability Index (CCVI) with 0.39 for exposure, 0.25 for sensitivity and 0.31 for adaptive capacity. Measures include traditional early warning systems, advocacy campaigns, and county information sharing forums.</p>

13.1.3 Mid Tana River Landscape Site

Table 31: Mid Tana River Landscape Site

Counties					
Isiolo	Meru	Tharaka Nithi	Kitui	Garissa	Tana River
County faces drought, floods, water and vector-borne diseases, scarcity of portable water, land degradation and desertification.	County faces drought, erratic rainfall and increase in temperatures. Measures taken include reforestation & reclamation of wetlands, community sensitization and the implementation of various Acts of Parliament that enhance forest and natural resource conservation, e.g. Environment Management & Coordination Act, Kenya Forest Service Act, Water Act, among others.	County faces floods, droughts, forest fires, border conflicts, bandits and increased spread of water-borne diseases, such as malaria and diarrhoea. Measures taken include the promotion of rainwater harvesting, conservation agriculture, and clean energy.	County faces unreliable, erratic and inadequate rainfall, persistent and more frequent drought, floods, wild fires, famine, conflicts, HIV/AIDS and increasing temperatures. Measures taken include promotion of reforestation and afforestation, use of drought-resistant seed varieties for food, fodder, crops & trees, formulation of policies geared towards climate change mitigation, environmental conservation, education & awareness programs, sensitization and enforcement of environmental law, harmonization of environmental conservation laws, promotion of renewable energy & energy saving devices, and use of modern charcoal burning technology.	County faces increase in water demand by livestock, decrease in availability of feed for livestock, soil erosion, land use changes, pests, spread of human and animal diseases. Measures taken include households pursuing livelihood strategies that are resilient to changing climate, community-based adaptation, identification of development principles to guide the utilization of natural resources, identification of strategic responses to address identified challenges, strengthening of early warning system, afforestation programmes, and restocking/ destocking of livestock.	County faces droughts, flooding, rise in sea levels, intrusion of salt water upstream, reduced fish population in the sea, drying of the ox bow lakes, reduced crop productivity, loss of biodiversity, changing ecosystems, conflicts and destruction of infrastructure. Measures taken include land use planning, identification and projection of ecologically sensitive and fragile areas, creation of awareness on the effects of climate change & embracing modern and sustainable practices/ technologies.

13.1.4 Chyulu Hills Landscape Site

Table 32: Chyullu Hills landscape Site

Counties		
Makueni	Kajiado	Taita Taveta
<p>County faces drought and famine, air and water pollution, reduced forest cover due to charcoal burning, soil erosion due to sand harvesting, road accidents (Mombasa Road), human-wildlife conflict (Tsavo East National Park and Chyulu Hills), disease epidemics and increasingly severe dry spells.</p> <p>Measures taken include the protection of hill tops, regulation of sand harvesting and charcoal burning, as well as initiating alternative economic activities.</p>	<p>County faces erratic rains, extreme temperatures, and cyclic and prolonged droughts.</p> <p>Measures taken include tree planting, control of soil erosion through building of gabions, planting of drought resistant crops (e.g. cassava, sorghum, millet and early maturing maize varieties), greenhouse farming, and sinking of boreholes.</p>	<p>County faces human wildlife conflict, droughts, floods, landslides, HIV/AIDS, drug and substance abuse.</p> <p>Measures taken include water harvesting technologies, efficient water uses, adoption of Early Warning Systems (EWS), awareness and education, and introduction of drought resistant crop and animal varieties. Additional measures include reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.</p>

14 Resilience and Climate Financing

1. Impacts of County level funds on building dryland resilience

Pre-established county level funds could prove to be versatile mechanisms through which to channel dryland projects funding to support community driven development and resilience building priorities. Their devolved nature could also make them preferred mechanisms for direct access to fund disbursements, supporting the country and county driven focus of resilience. Access to such funds will be in accordance with the Kenyan constitution (2010) which grants county government's authority and responsibility for developing the social and economic aspects of their county according to local priorities and as per County integrated development plans (CIDPS).

2. Building dryland resilience at County level through climate funds

The devolved climate finance

The Adaptation Consortium (Ada) is one key institution helping to strengthen the institutional arrangements that will enable climate finance from the Green Climate Fund and other sources to flow through the National Drought Management Authority to Arid and Semi-Arid Lands (ASALs) counties. The County Climate Adaptation fund enables the prioritization of adaptation investments by vulnerable communities through representative ward-level institutions.

At the county level, five Arid and Semi-Arid Counties of Garissa, Isiolo, Kitui, Makueni, and Wajir are institutionalizing the County Climate Change Fund (CCCF), formerly known as the County Adaptation Fund (CAF) within their county structure by drafting and passing CCCF regulations and bills. This is to build their readiness to draw down climate finance from the Green Climate Fund (GCF), and other climate finance sources, once the National Implementing Entities (NIE) have been accredited. The Department of International Development (UKAID) is providing seed money to the CCCF through the Adaptation Consortium within the National Drought Management Authority (NDMA). The CAF approach was initially piloted in Isiolo County and its success lead to its replication to the other four other counties of Garissa, Kitui, Makueni and Wajir (Ada consortium, 2015)

Box 1: Piloted counties County Climate Adaptation Fund

Initially piloted in Isiolo County, the approach is now being implemented in four other dryland counties of Garissa, Kitui, Makueni and Wajir which in total cover approximately 29% of Kenya's land area and a population of 4 million plus. At the end of the project in 2017, it is expected that 2.5 million people will be supported to cope with climate change through provision of climate information, while 800,000 people will benefit directly from adaptation investments.

Source: Ada Consortium.

The CCCF model conforms to the Constitution of Kenya where public participation is a core tenet of the fund. Through the participatory approach, local communities are authorized to prioritize the type of public investments that will build their resilience to climate change. The communities' priorities are captured in proposals developed by Ward-level Adaptation Committees and are assessed by the County-level Planning Committee who strengthens them in order to meet the CAF funding criteria. The five counties selected so far are also taking advantage of the Kenya's devolved system of governance to integrate climate change in their County Integrated Development Plans (CIDP). County and sub-county legislations and regulations are being enacted to integrate climate change in their County Integrated Development Plans (CIDP) and county budgets to finance adaptation. The five counties have draft CCCF bills and regulations and have already presented them to their respective county assemblies for approval. The approval will ensure that the structure adopted is fully owned by the county government and can be funded from the county budget. The CCCF bills and regulations recognize the participatory role of the communities in determining their prioritized investments (Ada consortium, 2015)

The Ada consortium is therefore supporting county governments to address this gap through a combined approach that consists of four elements intended to strengthen their decentralized planning processes of building local resilience:

3. Key Elements Strengthening Decentralized Planning Processes

1. Establishing County Climate Change Fund (CCCF) – a devolved finance mechanism under the authority of each county government that allows climate finance to reach the most vulnerable with women and youth involved in decision making across counties through the ward and sub-county climate change committees.
2. Integration of Climate information & resilience assessment into development planning and funding process
3. Monitoring system to track how adaptation builds resilience and strengthens economic development

4. Achievements of Decentralised Planning Processes

The Adaptation Consortium has showcased that climate adaptation planning, supported by devolved funds and informed by climate information services, can significantly benefit vulnerable people in poor and marginalized dryland households. Key achievements include:

- i. Has contributed to transformative change through the enactment of CCCF legislation to institutionalize CCCF as public fund by ensuring county planning and budgeting process are drawn and incorporate climate finance from national and international sources. For example, the CCCF legislation commits counties to contribute a certain minimum % of their development budget to adaptation finance (sustainability), and to empowering local people to prioritize majority (70%) of available adaptation finance (context driven, inclusion, community oversight).
This is a huge step in addressing long-term resilience building in dryland counties.
- ii. The National Drought Management Authority is pursuing accreditation as NIE for GCF - This will institutionalize the process and enable counties to be accredited as Executing Entities (EE).
- iii. Linkage with national level processes in addition to piloting priority action from National Climate Change Action Plan 2013 (i.e. Tracking Adaptation and Measuring Development M+E framework), the National Adaptation Plan (NAP) and Ending Drought Emergency (EDE) strategy have picked on devolved climate finance and planning as good examples for scaling up.
- iv. By building capacity of over 1.5 Million vulnerable people in dry lands of Kenya and supporting them with climate adapted resilience projects
- v. By providing early evidence of effective community engagement (through Ward Adaptation Planning Committees) and through the county planning and budget process to deliver projects with high adaptation impact and in a cost-effective way (Ada consortium, 2015)

15 Gender issues in response to the impact of climate change on drylands

Climate change mitigation measures in the project area could include reforestation, and promotion/ development of alternative clean energy sources, while adaptation strategies include promotion of drought-resistant and fast maturing crops, agro-pastoralism, construction of water pans, institutionalization of traditional natural resource management structures (e.g. grazing councils), community education/awareness and diversification of livelihood systems. Additional measures include the improvement of livestock breeds, restocking, destocking and establishing an Early Warning System.

- **Encourage conservation through income generation**-Associating credit facilities with natural resource management efforts is one of the best ways of encouraging rural women and men to take an interest in environmentally sound activities.
- **Involve local women and men**- Local land use management arrangements that increase women's and men's authority over resources should be promoted, indigenous knowledge valued and special attention to local priorities given. This demonstrates how local women and men can be empowered and supported to assume greater local control over resources
- **Awareness raising and education**- This should be aimed at attitudinal change in bringing about change. For instance, the Burkina Faso, Niger and Senegal field experience promoted improved cooking stove designs as a way of combating deforestation. Women rejected some of the new stoves because they did not take specific technical food preparation factors into account, while other models were widely adopted and resulted in dramatic savings in wood biomass.
- **Strengthen local institutions**- Credit facilities through traditional women's mutual assistance groups are successful in increasing household food security. However, local institutions are often not yet strong enough to continue the credit schemes, resulting in declining repayment rates and little new activity.
- **Promote sustainability**- It is essential to promote both empowerment and the cultural traits that lead to sustainability. However, focusing on the traditional roles in order to improve the sustainability of drylands carries the built-in danger of reinforcing gender gaps.
- Improve women's and men's access to and control over productive resources, such as land, agricultural support services, access to education, markets, etc. Also promoting a better access to resources can contribute to women's and men's empowerment.

16 General Findings

Findings

The focus and scope of the gender analysis is clustered on 3-4 large scale drought reserves that cut across the thirteen county boundaries creating four (4) priority landscape sites for coordinated gender analysis namely: Moyale-Wajir North-Banisa Hills, Sabarwawa, Mid Tana river and Chyullu Hills.

Below is a summary of general findings:

1. Gender discrimination in drylands is a result of an unequal social, cultural and economic structure and limited political and organizational influence, which translate into marginalisation, poverty, food insecurity and limited access to resources. In general, men are responsible for decision-making and the planning of farming activities, while women have little authority and have to seek their husbands' permission before they commit family resources or make decisions. Nonetheless, women in dryland areas play a key role in natural resource management and achieving food security. They often grow, process, manage and market food and other natural resources. They are generally responsible for small livestock, vegetable gardens and collecting fuel, fodder and water, as well as carrying out their traditional reproductive roles.
2. In the project areas mentioned above it was generally found out that women's traditional roles are particularly crucial in drylands in terms of natural resource management and food security. Men were found to be more responsible for decision-making and planning of farming activities and livestock management but in other areas, they increasingly leave the degraded areas to look for jobs in urban areas, leaving women to assume new roles and responsibilities on the farm and rangelands. Women's access to and control over natural resources (such as land) and agricultural support services (including credit, extension services, etc.) is often restricted.
3. Through gender analysis it was observed that women's limited access to agricultural resources and services is caused by a series of social, economic and cultural factors that force rural women into a subordinate role and hamper their productivity. As well as limiting their participation in decision-making processes and development initiatives. It was also clear that customary practices and laws have limited women's rights to land despite legislation that guarantees those rights. Particularly pressing is the issue of insecure land tenure that reduces women's and youth incentives to have no permanent rights to the land. Without secure land rights, women and youth have little or no access to credit, rural organizations and other agricultural inputs and services.
4. Field experiences suggest that an interesting social and economic transition is under way in drylands of Kenya. An increasing number of households in these drylands are relying less on agricultural activities for income and more on off-farm employment (as well as on remittances from migrant labour). This has enabled households to meet their food security needs in an environment of declining land productivity and, at the same time, it reduces the pressure on drylands natural resources.
5. Smallholders, particularly women, often face difficulties in obtaining credit. This is a direct consequence of their lacking ownership to land and to their low involvement in development projects and membership in rural organizations. It is crucial for this project to promote income-generating activities for women as a vital source of household food security. These projects provide women with management and organizational skills and empower them through increased revenues and self-esteem.
6. While men are mostly represented in traditional farmers' organizations and are the recipients of most extension initiatives, this analysis found that establishing and supporting women's groups helps women to improve their own livelihoods. Through

these groups, women are able to deal with their problems, voice their concerns and increase their confidence. These groups help women to tackle the extreme conditions that derive from drylands degradation, including reforestation and irrigation activities and overcoming barriers to income-generating activities.

7. By recognition of the value of indigenous knowledge, as well as women's and men's roles as innovators regarding dryland conservation and farming techniques, then the project should ensure and promote the participation of women and men (as innovators and end users) in order to improve tools and techniques aimed at combating desertification. Both women and men should be viewed as the agents and beneficiaries of change. Involving rural communities, especially the "voiceless", in resource management and in decisions regarding environmentally sound practices and techniques is a powerful way to mitigate the conditions and the impact of land degradation.
8. The analysis observed that removal of gender-related barriers for greater access to resources was critical. Through a gender perspective eight (8) key issues related to access to, and control of resources were identified namely: land tenure, credit, education, time, information, awareness raising, decision making, support services and markets. The report has identified insecure lands tenure as a key constraint for women and youth to make long-term investments in land rehabilitation, conservation and maintain soil quality because they have no long-term or permanent rights to the land.
9. Women usually have even less access to land (and control) than men. Across the 4 project landscapes it was noted that customary practices and laws that limit women's right to land are deeply entrenched and most of the time subjugate land legislation that guarantees women rights to land. Providing credit through traditional mutual assistance groups, is one of the best ways of encouraging rural women and men to take an interest in dryland management across the counties.
10. Smallholders, particularly women, often face difficulties in obtaining credit due to lack of collateral. There is a need for the project to develop informal sector enterprises and alternative livelihood possibilities making credit available to small farmers, especially to women and youth. It was also noted that womens' access to agricultural support services has been hampered despite their multiple roles in dryland management. Women's groups have if supported well, are capable of tackling extreme livelihood conditions deriving from dryland degradation, including through reforestation and irrigation activities. Awareness raising and education concerning desertification can lead to changes in attitudes and longer term social change.
11. It was observed that women in the targeted drylands counties face the difficulty of turning surplus products into cash income because of their lack of transport and access to markets. Women face particular constraints as marketing infrastructure and organizations are rarely geared towards small-scale production or to crops grown by women farmers. Project activities that provide women with management and organizational skills would help them to participate in decision making processes and project activities.
12. Women living in drylands are particularly concerned as they usually have to walk longer distances to collect water and fuel wood and take on more farming responsibilities in the absence of men. It is thus important for the project to consider gender strategies and activities that free-up women from heavy workloads, such as the search for water and fuel wood. This is crucial if they are to spend more time on their gardens, income generating activities or dryland conservation agriculture.

17 Specific findings in line with Gender Analysis Framework

1. Men control access to most productive assets in Kenya (World Bank 2003). Most dryland communities in Kenya share a patriarchal culture in which men own the key productive assets such as land, livestock and medium to large businesses. A woman, for example, may milk the family cow and sell the milk products, but she could not sell the cow itself because it is “owned” by her husband. For dryland conservation, this means that activities which include the use of productive resources like land or livestock should include men and women in decision-making. Secondly, any proposed land-use change relating to dryland conservation should include both local men and women as key stakeholders.
2. Access to credit is a key constraint in improving women’s economic productivity across the selected counties. Hence it is important that the project focuses on improving women’s access to credit.
3. Women contribute up to 80% of the food production labor in drylands yet benefit from only 7% of the agricultural extension services. Most extension officers are men (85% in some provinces), and cultural sensitivities may prohibit men extension agents from talking to women farmers in group trainings and community dialogue meetings. For it is proposed that the project targets improving women’s access to agricultural inputs.
4. The project can provide support and partner with Ministry of Gender, Child and Social Development’s across key counties still practicing FGM. Program activities that eliminate female genital cutting may be an option that would improve the health of girls locally.
5. Illiteracy varies greatly among counties and is highest in the northern counties. There is a continuing belief among some men that it is a waste of time to educate girls because they will join someone else’s family when they marry and do not need to read to do their work. This is a backward belief that is hindering girls and women from not getting education. The project should assume a high degree of illiteracy in most areas of Kenya and deliberately design a strong communication strategy that will focus on verbal communications and visual media more than written media across select counties.
6. Any conservation activity that might result in girls having to go farther to fetch water or firewood or that would increase the workload of women and girls in a household may negatively impact on the schooling of girls. For this project working with women in polygynous unions may require first working with the husbands to gain agreement on any proposed activities. The project should target men as “key change agents”.
7. There is a primary objection across by men to contraceptives especially northern frontier counties. Addressing this concern with outreach and education should be part of the project activity that include improving access to contraceptives and general reproductive health for women and youth in dryland counties. Secondly, the inclusion of a focus on nutrition education is important in improving pastoral women’s health and indeed that of the wider family.
8. Rampant cattle rustling and increased insecurity from raiding other communities for livestock due to dowry needs and banditry often hinders the participation of women in the community and the local economy because of fear of violence. This limits them close to home. Dryland initiatives that include protection for wildlife and people may be well received by local women. Secondly through dryland conservation initiatives, women are able participate in meetings and trainings.
9. For pastoralists, especially girls, a combination of high-quality and locally relevant broadcast programmes, face-to-face teaching would be ideal avenues for raising awareness and challenging stereotypes on the many gender issues affecting dryland communities.

10. Social protection schemes show great promise in supporting vulnerable groups in dryland areas and particularly women. This can be implemented by improving women's access to risk management and insurance products.
11. Promoting income generation for pastoralist women can increase their socio-economic position in the household. For example, by linking women to markets for livestock-related products can promote social and economic empowerment, and can be culturally acceptable among most dryland communities. More investment is also needed to improve women's participation in alternative livelihoods, to ensure that their rights and interests are recognized
12. Increased collaboration and partnership with likeminded CSOs, academic institutions and the media working on dryland issues can help increase awareness of gender, pastoralist, and environmental sustainability issues in the drylands. This awareness raising should seek to counter the negative stereotypes of dryland areas to culturally revalue them and women's knowledge and equal rights in particular. In addition, CSOs could support gender justice involving whole communities, men, and local leaders, to challenge discriminatory social norms and harmful practices.
13. Women have simultaneous and competing demands for productive (market) and reproductive (household) labor time. Time poverty and income poverty often reinforce each other. For gender and conservation, this means any activity that adds to a women's time burden may negatively impact other areas of her life. Avoiding such activities, reducing them to a minimum, or mitigating them with offsets should be the hierarchy of the project.
14. It is critical for proposed activities to understand and integrate season calendars and daily labour time schedules in project design, planning and implementation of local activities that reduce the "time poverty" of women. Secondly, time poverty among female-headed households is particularly acute. Targeting female-headed households in the project can help ensure project benefits are distributed to both poor and better off households. Providing offsets greater than the opportunity costs of a new activity is critical for female-headed households. In other words, the women have to be clearly better off in time or money by participating in a new activity than they would have been without the activity.
15. Sensitivity to the traditional divisions of labor may help to design the project better to be more socially acceptable. It is women and girls who collect the drinking water in most of Kenya, and as the time needed to fetch water increases, school attendance for girls may drop (Nankhuni & Findeis 2004, Ndiritu & Nyangan 2010). Improving drinking water quality and quantity may have direct benefits to women and girls in the project.
16. The new constitution in August 2010 guarantees equal rights regardless of gender, and for the first time, customary laws are no longer exempt from constitutional provisions against discrimination. The project should build on Kenya's legal framework for gender. This would help to reduce gender inequities in the project area.
17. Increasing cash income for women is likely to have larger benefits for local human well-being than doing the same for men. Secondly, the government has encouraged the formation of local women's groups. Partnering with a women-orientated groups may help ensure women benefit at least as much as men from a conservation initiative.

18 Project Specific Recommendations

18.1 Specific Recommendations

- 1) Promote the use of efficient technologies targeting women to increase agricultural production, particularly with improved crop varieties and drought-resistant inputs for crops and livestock.
- 2) Enhance practices and technologies for animal production and health, including vaccination and animal health services targeting women and men.
- 3) Promote capacity-building activities on proper livestock breeding, as well as agronomic practices and agribusiness while using men as key change agents.
- 4) Strengthen surveillance mechanisms at county and ward levels to control pests and diseases. Hence there is a need to increase investments and resources for implementing sustainable disease control programmes and strategies targeting women and men in conjunction with the county governments.
- 5) In coordination with counties, enforce existing laws governing disease control and improve the coverage of vaccination programmes and training of community animal health workers (CAHWs) targeting both men and women.
- 6) Support targeted Government and community-based organizations in providing animal health and production services (e.g. veterinary associations, government veterinary extension services and cooperatives) through capacity development of women, CSOs and self-help groups (SHGs).
- 7) Invest and pilot improved techniques and practices for reducing storage and post-harvest losses with specific tailored trainings geared towards women.
- 8) Invest in improved efficiency of processing and preservation of food products by women. These should be particularly related to the marketing of livestock products, and support for the development and rehabilitation of livestock infrastructure, such as markets and slaughterhouses.
- 9) Support women in income-generating activities to enhance the diversification of income sources and livelihoods with both on-farm and off-farm productive activities and services. This is intended to reduce the impact of negative shocks on households by diversifying the risk exposure and mitigating the negative coping strategies employed by less resilient households.
- 10) Expand access to financial support services targeting women in rural households to connect small-scale producers with a variety of savings, loan and grant schemes to strengthen and diversify their livelihood base and income potential. This should promote small business development by promoting small business development matching grants, with a focus on youth and women.
- 11) Enhance and design programmes that target gender-based issues and youth to access to efficient financial products and services, such as access to credit and market information.
- 12) Enhance environmental sustainability, and improve natural resource management and equitable access to resources through adoption of women centered approaches to negotiate and secure access to land, title deeds and contracts.
- 13) Enhance participation of women and men in negotiated peace talks as pre-requisites for improving the sustainable and equitable use of natural resources (such as land, pasture, water, trees, etc.) so as to overcome natural resource-based conflicts.
- 14) Enhance participation of women and men in rangeland rehabilitation and management while promoting fodder production to improve women access to production land, water and pasture for livestock, and can decrease natural resource-based conflicts and insecurity.
- 15) Facilitate and support community-based management of rangeland and rehabilitation through women groups, women organisations and the improvement of rangelands through cash-for-work programmes that include women participating.

19 Gender Action Plan

The **Gender Action Plan** provides entry points for gender-responsive actions to be taken under each of the activity areas of the Twende project. The plan will be refined in the inception phase of the project to more effectively support youth programming and at that point will become a Gender and Youth Action plan. The plan identifies the kinds of actions that will be incorporated in to the activities during the development of project work plans in the inception phase of the project. In addition an indicative set of indicators have been outlined to measure and track progress on these actions at the activity level. To avoid developing an unwieldy system three or four of the most critical gender responsive indicators identified here will be incorporated into the detailed M&E plan to be developed at the start of implementation, where baseline data will be incorporated. All data collected during implementation of the project will be gender disaggregated and subjected to the requisite data quality assessment process.

In addition to monitoring through collecting indicator data, gender responsiveness of the project will be monitored through a participatory process. A Gender Responsiveness Action Tool (annex 1) will be used to measure gender responsiveness on the project. This tool will be further refined during the inception phase.

A **gender task group** will be established early in the project drawn from the different institutions of the project. IUCN will lead that task group that will be responsible for implementing the GAP. Training and capacity building on gender and youth programming will be held for all the institutions working on the project. Specific support will be provided by IUCN's Global Gender Office to the gender task group.

Objective	Actions	Indicator	Responsible Institutions
Activity 1.1 Establish information systems to inform climate change sensitive landscape planning and vulnerability/ risk management	<ul style="list-style-type: none"> Identify female beneficiaries who are working in existing rangelands- communal or private Documentation of Gender responsive rangeland resource mapping, assessment and management. Identify the information needs and contributions of both men and women to inform a valuable dryland information system, and ensure information is differentiated by gender Ensure knowledge of both women and men inform dryland management plans Identify the different types of tools, training and infrastructure needed for men and women to implement dryland management plans 	<ul style="list-style-type: none"> Role of women incorporated in the information systems to inform climate change sensitive landscape planning and vulnerability management. 	NDMA, MOAI, ICRAF, County governments
Activity 1.2 Strengthen community institutions to coordinate community planning and to inform and	<ul style="list-style-type: none"> Integration of gender and the roles/responsibilities around community and landscape planning. Engage women in contributing their unique knowledge to community and landscape planning Ensure the involvement of both men and women rangeland management activities, including equal participation in the landscape planning processes. 	<ul style="list-style-type: none"> Number of women and men engaged in community and landscape planning. Number of men and women participating in rangeland management activities. 	NDMA, County governments, MOAI, ICRAF, IUCN

Objective	Actions	Indicator	Responsible Institutions
represent stakeholders in landscape planning.			
Activity 1.3 Develop county rangeland restoration plans that build on local community plans combined with enhanced climate change data.	<ul style="list-style-type: none"> • Ensure men and women are equally engaged in developing county rangeland restoration plans • Clearly outline the role of women and the youth developing the county rangeland restoration plans. Women and youth involved in landscape level planning at county level using the SHARED and early warning data to integrate into county planning. 	<ul style="list-style-type: none"> • The role of women, men and the youth clearly defined in the county rangeland restoration plans developed. • Number of women and men engaged in developing the county rangeland restoration plans. 	IUCN, NDMA, County governments, MOAI Women groups/CSOs.
Activity 1.4 Establish functioning landscape management mechanisms in participating counties for climate change sensitive and accountable decision-making	<ul style="list-style-type: none"> • The role of women and youth clearly defined in the inter-county forums for landscape planning. • Women and the youth involved in the inter-county forum for landscape planning. • Women and the youth participate in the trainings on landscape planning and ecosystem management. • Ensure both women and men are participating in committees and groups for managing local dryland areas, including ensuring women in leadership positions. 	<ul style="list-style-type: none"> • Number of men and women participating in landscape management activities. • Number of men and women participating in landscape management trainings. 	NDMA, County governments, Women groups/CSOs,
Activity 1.5 Establish participatory monitoring, evaluation and learning systems to support adaptive management	<ul style="list-style-type: none"> • The role of women and youth clearly defined in the annual review of the participatory rangeland management plans. • Ensure both men and women in government institutions are engaged in training and monitoring of drylands • Define indicators for measuring and monitoring drylands (including economic valuation, research and development) related to the needs of both men and women, and that are sex disaggregated. 	<ul style="list-style-type: none"> • Number of women participating in the annual review of the participatory rangeland management plans. • Number of women and men involved in trainings and monitoring of drylands activities. • Indicators defined for measuring and monitoring drylands include needs for both men and women. 	IUCN, NDMA, County governments, MOAI county staff.
Activity 2.1			
Implement priority community-based rangeland restoration activities	<ul style="list-style-type: none"> • Ensure women contribute to engendered community plans for afforestation & reforestation of dryland areas. • Identify best practices to be scaled up based on the experiences of both men and women • Identify and carry out best sensitization strategies for both men and women • Ensure both men and women are equally engaged in planning and implementing restoration activities 	<ul style="list-style-type: none"> • Number of women and youth participating in planning activities for implementing restoration activities. • Number of women and youth implementing identified community based rangeland restoration activities. 	Communities, CSO with support

Objective	Actions	Indicator	Responsible Institutions
	<ul style="list-style-type: none"> Ensure all learning activities are tailored to needs and strategies of both men and women. 		
Activity 2.2 Implement priority actions for integrated land/water management in catchments	<ul style="list-style-type: none"> Increase adoption of diversified crops for women in target dry land communities Introduce new agricultural practices for both women and men drawing on indigenous knowledge strategies from both genders Identification of agricultural practices that also align with the needs and priorities of both men and women Identify and document indigenous knowledge, practices and coping mechanisms informed by both men and women Engagement of both women and men in farmer and water user groups, including leadership positions Engagement of both women and men in learning and dissemination of good practices Develop appropriate climate change adaptation and mitigation plans for farmers. 	<ul style="list-style-type: none"> Number of women and youth participating in planning activities for integrated land/water management in catchments. Number of women and youth implementing identified actions for integrated land/water management in catchments. 	NDMA, MOAI, County governments,
Activity 2.3 Install community-validated strategic water sources for sustainable rangeland utilization	<ul style="list-style-type: none"> Women groups identified and involved in the restoration and construction of critical water infrastructure. Strengthen the role of existing women groups in participating in monitoring networks for water resources. Training on gender sensitive water harvesting techniques. 	<ul style="list-style-type: none"> Number of women groups involved in the restoration and construction of critical water infrastructure. Number of female recipients participating & benefitting from trainings on sensitive water harvesting techniques. 	WRA, KWTA, MOAI
Activity 2.4 Assist communities to formulate bylaws and incorporate into county laws	<ul style="list-style-type: none"> Analyse the role of women and youth in traditional resource management structures. Ensure women involvement in documenting traditional resource management arrangements. The role of women to be clearly included in the legal options developed to strengthen customary arrangements. 	<ul style="list-style-type: none"> Documented role of women and youth in traditional resource management structures. Number of women participating in documenting traditional resource management arrangements. Clearly defined role of women included in the legal options developed to strengthen customary arrangements. 	IUCN, County governments, NDMA, MOAI
Activity 2.5 Build capacity of local institutions to implement climate-	<ul style="list-style-type: none"> Ensure women and youth involvement in trainings of local and customary institutions. Women involvement in the public dialogue consultations to develop a long term rangeland extension strategy. 	<ul style="list-style-type: none"> Number of women and youth participating in trainings of/on local and customary institutions. Number of women involved in the public dialogue consultations 	MOAI, NDMA, ICRAF, IUCN, CSOs,

Objective	Actions	Indicator	Responsible Institutions
sensitive landscape management	<ul style="list-style-type: none"> Integration of gender into trainings on interpretation and use of climate information. 	to develop a long term rangeland extension strategy.	
Activity 3.1 Invest in priority value chains that have been validated by local communities	<ul style="list-style-type: none"> Develop improved methods to increase productivity in and incomes from milk, meat, and skins processing by women accessing improved gender-responsive technologies Develop improved management systems for insect pests, diseases, viruses, and parasitic weeds in cereal/grain cropping systems by involving the responsible men and women Develop improved quantity and nutrient quality of feed/fodder for livestock through gender-sensitive improvement of feed/fodder preparation and manufacture. Improved post-harvest, storage, and processing technologies developed/tested by women, especially for crops, vegetable, fruits, and dairy, and constraints to adoption identified/addressed. Improved conservation agriculture methods to increase resilience and benefit both men and women without increasing gender inequity in workloads Women involvement in strengthening market information systems through cooperatives. Women participation in trainings on branding, niche marketing, quality management and sustainable harvesting of natural resource. 	<ul style="list-style-type: none"> Number of women and men engaged and participating in the implementation of priority value chains. 	CI, CSOs, Womens Groups,
Activity 3.2 Provide grants to establish for restoration enterprises by women's groups	<ul style="list-style-type: none"> Establish women groups based grass seed production and fodder bank enterprises; Training women and men in grass seed production; Entrepreneurship training for women; Grant management training for women and youth; Allocation of resources for start-up enterprises for both men and women; Training on resource mobilization for women and the youth. Identification of female community members who are interested in becoming entrepreneurs and setting up businesses Ensure training/mentoring on business development, entrepreneurship and innovative finance is provided equally to both men and women Identify and provide market infrastructure that is relevant for both men's and women's needs. 	<ul style="list-style-type: none"> Number women and youth trained in entrepreneurship activities. Value of grants provided to women and youth groups for start-up activities. 	CI, Justdigit, CSOs.

Objective	Actions	Indicator	Responsible Institutions
Activity 3.3 Establish financial incentive mechanism for sustainable land management	<ul style="list-style-type: none"> • Involvement of women and youth in the trainings, dialogue and establishment of community resilience facilities in each community • Allocation of funds to incentivize community land use plans should be done equally between men and women, ensuring there are women and youth in leadership positions 	<ul style="list-style-type: none"> • Number of women and youth involved in trainings and dialogue on community resilience facility. • Value of funds allocated to women and youth groups to incentivize community land use plans. 	IUCN, CI, County governments, Women groups/CSOs,
Activity 3.4 Provide grants to community-based enterprises for ecosystem based adaptation that could create opportunities for investments in the value chains	<ul style="list-style-type: none"> • Ensure training/mentoring on business development, entrepreneurship and innovative finance is provided equally to both men and women • Identify and provide market infrastructure that is relevant for both men's and women's needs. 	<ul style="list-style-type: none"> • Number of women and youth trained / mentored on business development, entrepreneurship and innovative finance. • Value of grants provided to women and youth groups to support ecosystem adaptation activities. 	CI, private sector support groups, County governments, Women groups/CSOs.

20 Annex 1. Gender Responsiveness Action Tool (GReACT) for TWENDE Implementation

The purpose of this tool is to help TWENDE implementing the Gender Action Plan, implement and monitor their interventions in a gender-responsive manner. Activities have been grouped according to “type”: e.g., assessments, training, policy advisory, etc. For each type of **activity**, this tool provides an indication of associated gender-responsive **objectives** and gender-responsive **actions** to be taken in preparing and implementing these activities. The actions are further illustrated with examples of concrete methods to carry them out. The tool will be refined in the inception phase of the project.

How to use this tool in a context where activities are both ongoing and new activities are being designed/coming online:

Half-day to full day workshop, either with several implementing partners at a time (global to cluster level), or with a single implementing partner in order to go into more depth with each. (Alternatively could be conducted over 2 half-day webinar sessions across the partnership.)

Session 1 (30 mins): Introduce revised Gender Guidance note and the Gender responsiveness action tool

Session 2 (90 mins): Group work and discussion on what partners have been doing so far within each type of activity, and using this tool to suggest adjustments and practical methods. Report to plenary and discussion; feedback on possible refinements to the tool to make it simple to use/easy to uptake.

Session 3 (90 minutes): Group work: each IP identifies the set of concrete actions it will incorporate in its workplan. Share back with plenary and discussion.

Session 4 (45 minutes): Monitoring and reporting on gender-responsive interventions in TWENDE

Activities under TWENDE	Gender responsive objectives	Ex-ante gender-responsive action:	Practical methods (examples)	Ex-post Learning:
<p>Grouped by phase of implementation</p>	<p><i>What gender equality objectives will this type of activity support?</i></p>	<p><i>Is this activity being planned/implemented in a gender responsive way? Three or more actions are suggested for each type of activity.</i></p> <p><i>For each activity, the following monitoring scale will be used in reporting:</i></p> <p>High gender responsiveness: <i>three or more actions are carried out.</i></p> <p>Medium gender responsiveness: <i>at least two of the actions are carried out.</i></p> <p>Low gender responsiveness: <i>only one action is carried out.</i></p>	<p><i>What are some specific methods/mechanisms to do this?</i></p>	<ul style="list-style-type: none"> • <i>Was the activity successfully implemented in a gender-responsive manner? How, why or why not?</i> • <i>If not, what can be done differently in the future to design and implement similar activities?</i> • <i>Are there outcomes or early signs of impact that can be attributed (at least in part) to implementing this activity in a gender-responsive way?</i>
<p>1. Planning phase of Twende</p>				
<p>Activity planning and design assessments phase - (e.g., rangeland and water demand assessment, community governance, household social surveys,</p> <p>Gender focus questions-</p> <p><i>What is the current situation of men and women in the target area?</i></p>	<ul style="list-style-type: none"> • Specific perspectives, practices and needs of women and men are explicitly assessed alongside or within broader assessment objectives • Specific barriers to women's and men's involvement in or benefit from actions is 	<ul style="list-style-type: none"> • Assessment incorporates gender responsive methods to e.g. disaggregate women and men's perspectives, needs, practices, institutional participation, etc. • Address/analyse main assessment question overall <i>and</i> through a gender equality lens, i.e. by considering what gender responsiveness issues need to be specifically addressed. • Assessment makes recommendations on gender-responsive interventions, including to overcome historical gender 	<ul style="list-style-type: none"> • Convene women's focus groups to collect qualitative data • Include women "heads of HH" in HH surveys (And ensure women and men members of a HH fill out the survey independently) 	<p>Monitor gender-responsiveness of assessment report: did the assessment meet both actions?</p>

Activities under TWENDE	Gender responsive objectives	Ex-ante gender-responsive action:	Practical methods (examples)	Ex-post Learning:
<p><i>Will Twende contribute to existing inequalities?</i></p> <p><i>Will Twende challenge the existing situation?</i></p> <p><i>What should Twende do differently to strengthen gender perspectives?</i></p>	<p>identified and included in assessment</p> <ul style="list-style-type: none"> • Women’s and men’s knowledge is tapped to inform assessments 	<p>biases/gender-based barriers and to advance gender equality</p>	<ul style="list-style-type: none"> • Conduct sex-disaggregated data collection and gender analysis 	
<p>2. Activity mobilization and implementation phase</p>				
<p><i>Establishing/strengthening local formal or informal institutions (WUAs, NRMCS, multi-stakeholder platforms, etc.)</i></p> <p><i>Gender focus questions–</i></p> <p><i>Are both men and women involved in the process of Twende project organizations development?</i></p> <p><i>Have any gender issues arisen that were not identified at the project design?</i></p>	<ul style="list-style-type: none"> • Women’s and men’s representation and meaningful participation is ensured/promoted • Women’s access to and use of the resource are treated equitably with those of men; women’s control over resources is considered [and enhanced?] in comparison to men’s. • Women’s informal/formal institutions are also considered, such as women’s cooperatives, VSLAs, farmers’ networks, etc.) 	<ul style="list-style-type: none"> • Understand existing obstacles, if any, to women’s representation and meaningful participation in local formal and informal institutions • Assist in developing statutes that ensure representation of women in governance structures • Assist in developing rules and procedures that ensure women’s active participation in consultation, planning and deliberation processes, (including for example through liaising with women’s groups/networks) 	<ul style="list-style-type: none"> • Conduct focus group interviews with women and men to learn about potential obstacles, if any, to women’s representation and meaningful participation • Identify, through interviews and observation, women with leadership abilities in the relevant setting/context • Invite women and in particular, identified women leaders, as well as gender champions, to any relevant meetings 	<p>Monitor women’s experience of collaborative planning activities: did they feel appropriately consulted, included, represented, was their voice heard? Did participation increase? Was it sustained?</p>

Activities under TWENDE	Gender responsive objectives	Ex-ante gender-responsive action:	Practical methods (examples)	Ex-post Learning:
			convened through TWENDE <ul style="list-style-type: none"> Organise consultations among women on how to develop rules and procedures that will be conducive to women's active participation in (...) 	
<p><i>Collaborative planning activities (e.g., Land use, NRM, integrated landscape planning, etc., including application of collaborative planning tools)</i></p> <p><i>Gender questions –</i></p> <p><i>Will the planning process involve women and men equally?</i></p> <p><i>Will customary barriers and stereotypes affect access to resources by women and men?</i></p> <p><i>Will Twende result in greater or fewer resources to male or female indirect beneficiaries?</i></p>	<ul style="list-style-type: none"> Women's representation and meaningful participation in ensured/promoted Women's access to, use of, and control over the resource are treated equitably with those of men 	<ul style="list-style-type: none"> Ensure that women and women's groups are invited to participate Include gender issues and gender-responsive planning in the agenda, explicitly (e.g., what issues /barriers do women face, and how can planning avoid exacerbating gender inequities and overcome gender barriers) Support women's participation in decision-making processes 	<ul style="list-style-type: none"> When facilitating, actively encourage women to speak and share their perspectives Identify, through interviews and observation, women with leadership abilities in the relevant setting/context Invite women and in particular, identified women leaders, including gender champions, to any relevant meetings convened through TWENDE 	Monitor women's experience of collaborative planning activities: did they feel appropriately consulted, included, represented, was their voice heard?
<p><i>Training workshops and events (e.g., water quality monitoring, rangelands restoration,</i></p>	<ul style="list-style-type: none"> Women's representation and meaningful 	<ul style="list-style-type: none"> Ensure that women and women's groups are invited to participate 	<ul style="list-style-type: none"> Design sessions to encourage women's voice: e.g. check 	Monitor women's and men's experience of workshops and training

Activities under TWENDE	Gender responsive objectives	Ex-ante gender-responsive action:	Practical methods (examples)	Ex-post Learning:
<p><i>integrated water and land use planning, climate smart farming practices)</i></p> <p><i>Gender focus questions -</i></p> <p><i>What specific training or other interventions might be necessary to make trainers more responsive to both men's and women's specific needs?</i></p>	<p>participation is ensured/fostered</p> <ul style="list-style-type: none"> • Effective training of women on equal footing with men • A significant percentage (TBD according to context) of trainees are women • Awareness-raising on gender-related concerns at different events, on different sub-topics (e.g., water, forest management, land tenure, value chains, access to finance, etc.). 	<ul style="list-style-type: none"> • Ensure that training is socio culturally appropriate for women (e.g., a separate women's training might be advisable in some cases) • Explicitly incorporate into training a gender-responsive take on theme at hand • When designing training, consider different needs and constraints of women vs. men in adopting new techniques or in changing behaviours 	<p>whether women-only small group work is more conducive</p> <ul style="list-style-type: none"> • When facilitating, actively encourage women to speak and share their perspectives 	<p>events and of gender-responsiveness components: did they feel it was useful, that they were appropriately consulted, included, represented, was their voice heard?</p>
<p><i>Brokering innovative partnership agreements (between e.g., businesses, farmers and other communities)</i></p> <p><i>Gender questions –</i></p> <p><i>Are numbers of men and women equally represented in business agreements ratification?</i></p> <p><i>Do women and men have an equal opportunity to benefit from partnership agreements?</i></p>	<ul style="list-style-type: none"> • Active participation or women in new partnership opportunities • Women and men benefit from new partnerships promoting IGG, including women entrepreneurs/women-owned businesses. 	<ul style="list-style-type: none"> • Approach and encourage women leaders and women's groups, including women-owned businesses, to engage in forming new partnerships • Ensure that women's perspectives and gender-specific issues are addressed during design, planning and establishment of new partnerships • Ensure that the partnership will be beneficial to both men and women equally 	<ul style="list-style-type: none"> • Conduct rapid survey during partnership design to understand how it might affect women and men differently 	<p>Monitor women's and men's engagement in agreements, including for example how many women-owned businesses or women entrepreneurs are approached/engaged.</p>

Activities under TWENDE	Gender responsive objectives	Ex-ante gender-responsive action:	Practical methods (examples)	Ex-post Learning:
<p><i>Support to new NBE and IG value chain development, including access to markets and finance</i></p> <p><i>Gender questions</i></p> <p><i>How will women be encouraged to take part in enterprise activities that are traditionally dominated by men?</i></p> <p><i>Will credit be affordably priced for disadvantaged women and men in the project area?</i></p> <p><i>Do men and women have equal access to markets in the remote locations where Twende operates?</i></p>	<ul style="list-style-type: none"> • Women entrepreneurs and farmers gain access to new markets and financing for IG and NBE work 	<ul style="list-style-type: none"> • Target both women and men during roll-out • Take stock of gender-specific concerns in e.g., access to markets and finance • Adapt intervention to facilitate benefits to both women and men 	<ul style="list-style-type: none"> • Identify value chains in which women are more active 	<p>Monitor women's ability to engage, e.g. if restricted access to formal markets of financial institutions poses a problem, and changes to women's roles in value chains</p>
<p><i>Advisory and support for policy changes</i></p> <p><i>Gender focus –</i></p> <p><i>Has the perception of men and women (norms, stereotypes, values) been at all altered during the course of this project?</i></p>	<ul style="list-style-type: none"> • Awareness-raising on gender-related concerns at different events, on different sub-topics (e.g., water, forest management, land tenure, value chains, access to finance, compliance with existing policy frameworks on gender-environment links etc.) 	<ul style="list-style-type: none"> • Target both women and men in leadership positions • Bring gender-specific learning into specific policy theme at hand • Include equitable participation of women on panels and high profile speaking slots 	<ul style="list-style-type: none"> • Engage women's advocacy groups, women's national networks, etc.] 	<p>Monitor policy reforms through a gender lens</p>

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