RESILIENCE HUB FOR AFRICA

BORDERLANDS SDG INVESTOR MAP

West Pokot and Moroto Border Areas of Kenya-Uganda.

UNDP Africa Borderlands Centre | Resilience Hub For Africa
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This report was prepared by GIST for UNDP Africa Borderlands Centre. It does not necessarily represent the views of UNDP Africa Borderlands Centre.

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1 | ACKNOWLEDGEMENTS

Accelerating progress toward achieving the Sustainable Development Goals (SDGs) requires collaborative and innovative financing. In this context, mobilizing private sector participation and strengthening networks across public and private sectors are essential to driving sustainable and inclusive economic growth, particularly in attracting investment to historically marginalized areas.

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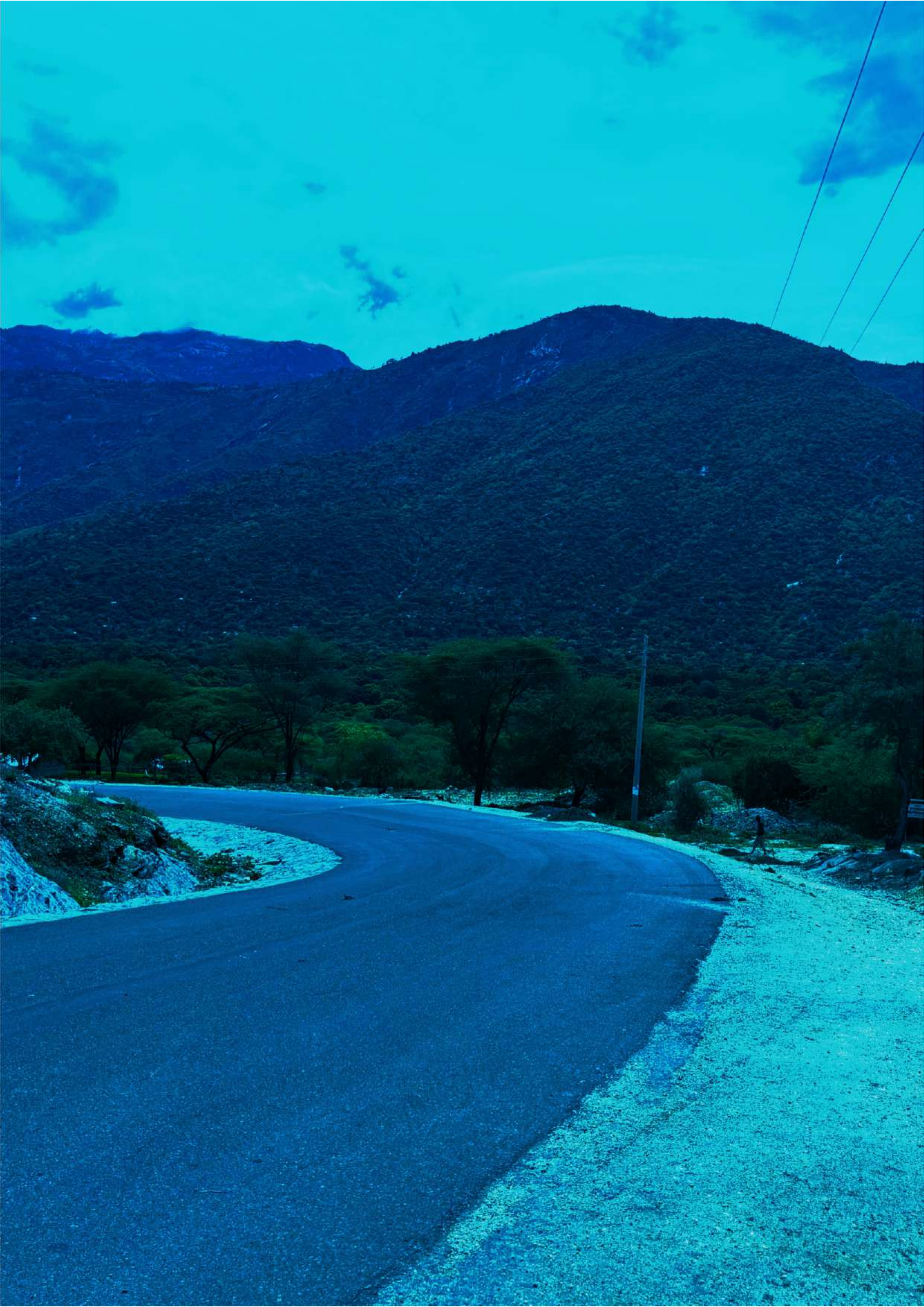
2 | LIST OF ACRONYMS

ABC	Africa Borderlands Centre
AfCFTA	African Continental Free Trade Area
AI	Artificial Insemination
CIDP	West Pokot County Integrated Development Plan
COMESA	Common Market for Eastern and Southern Africa
EAC	East Africa Community
EAC	East African Community
EIOA	Emerging Investment Opportunity Area
FCDC	Frontier Counties Development Council
IGAD	Intergovernmental Authority on Development
IOA	Investment Opportunity Area
KIDP3	Karamoja Integrated Development Plan 3
KII	Key Informant Interview
KRSU	Karamoja Resilience Support Unit
MFI	Microfinance Institution
MSME	Micro, Small and Medium Enterprises
NOREB	Kenya's North Rift Economic Block
OSBP	One-Stop Border Posts
PV	Solar Photovoltaic
ROI	Return on Investment
SACCO	Savings and Credit Cooperative Organization
SDG	Sustainable Development Goal
SFH	Sustainable Finance Hub
UNDP	United Nations Development Programme
VSLA	Village Savings and Lending Associations



3 | EXECUTIVE SUMMARY

The Borderlands SDG Investor Map identifies commercially viable, SDG-aligned opportunities in the Karamoja–West Pokot cross-border region and provides a practical roadmap to crowd in private capital alongside public and development financing. Built on UNDP's SDG Investor Map methodology and tailored borderlands guidance, the work combines secondary market intelligence with in-depth consultations across public, private, and community stakeholders, and is designed to scale to other African borderlands.

The borderlands face critical development needs. Livelihoods remain dominated by agro-pastoralism with chronically low productivity, thin value chains, and high exposure to climate shocks. Basic infrastructure, such as roads, power, storage, and finance, lags national averages, constraining market access and deterring investment. Yet recent improvements in regional integration and peace dialogues, paired with strong policy alignment in both Kenya and Uganda, are steadily strengthening the enabling environment. Security has improved in many areas, though localized risks persist and require conflict-sensitive operating models.

In this context, this Investor Map identifies nine Investment Opportunity Areas (IOAs) and four Emerging IOAs (EIOAs) across five priority themes (agriculture, livestock, financial services, renewable energy, and tourism), each framed by a problem statement, business model, beneficiaries, economics, enabling factors, risks, and development impact.

In agriculture, opportunities include: commercial beekeeping and honey processing; aggregated warehousing and cold storage to curb post-harvest losses; and (as an EIOA) sustainable Aloe vera production, contingent on harmonized policies and sustainable harvesting. Livestock opportunities prioritize animal feed production and distribution; livestock processing and value addition via abattoirs and feedlots; dairy aggregation and processing; and expanded veterinary services and breed improvement, each reinforcing climate resilience, higher offtake values, and local job creation. A further EIOA, hides and skins aggregation and processing, targets value capture from currently wasted by-products.

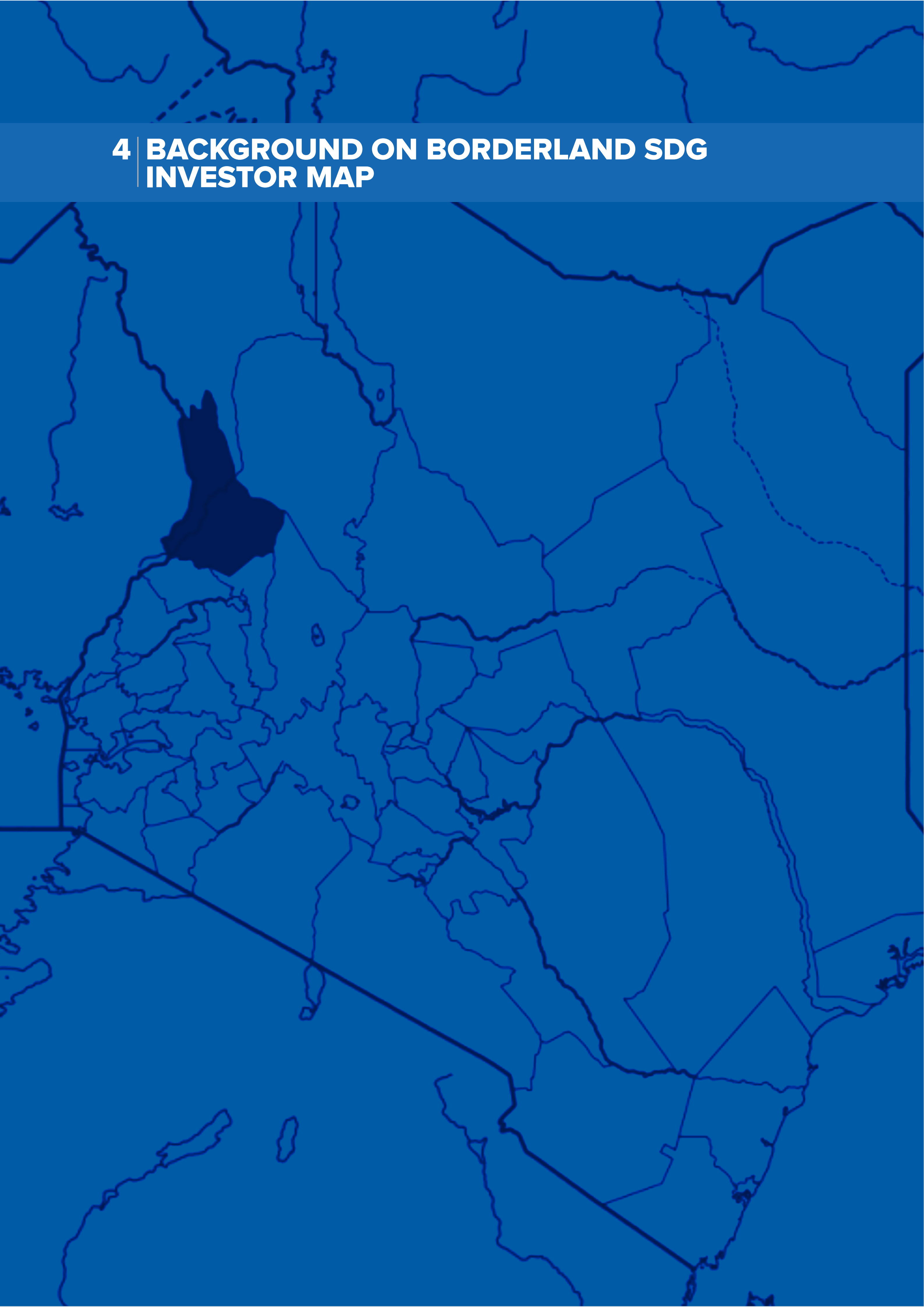
On the enabling side, financial services tailored to small traders and cooperatives (agent-led, mobile, SACCO-linked) can unlock working capital and strengthen cross-border trade. A complementary EIOA, micro-insurance for farmers and herders, would stabilize incomes against drought and disease but needs data, regulatory clarity, and premium support to scale. Renewable energy solutions for productive use, particularly solar for milling, cooling, drying, pumping, and powering abattoirs, will address the reliability gap that currently idles under-used assets, while biogas units at cross-border markets can tackle clean cooking, waste management, and women's economic participation. Finally, cross-border sustainable tourism services (guided cultural experiences, eco-lodges, and multi-day circuits) offer diversification and inclusive growth when paired with community governance and improved connectivity.

Indicative returns range between 10% to 40%, with blended finance, results-based financing, and guarantees pivotal to crowd in private investors and reduce adoption barriers for early movers. The political-economy context underscores the importance of partnering with trusted local intermediaries and cooperatives; simultaneously, uncertainty from shifts in international aid heightens the case for private capital leadership and resilient, market-based models.

The Figure below provides the list of IOAs and EIOAs identified. With patient capital, local ownership, and conflict-sensitive design, these opportunities can catalyze a new wave of inclusive, climate-resilient investment in African borderlands.

Sector	Type	Opportunity	Subsector	Industry
Food & Beverages	IOAs	1. Commercial beekeeping and honey processing	Food and Agriculture	Processed Foods
Food & Beverages	IOAs	2. Aggregated warehousing and cold storage solutions	Food and Agriculture	Agricultural Products
Food & Beverages	IOAs	3. Animal feed production and distribution	Food and Agriculture	Meat, Poultry and Dairy
Food & Beverages	IOAs	4. Livestock processing and value addition	Food and Agriculture	Meat, Poultry and Dairy
Food & Beverages	IOAs	5. Dairy production, aggregation and processing	Food and Agriculture	Meat, Poultry and Dairy
Food & Beverages	IOAs	6. Veterinary services and breed improvement	Food and Agriculture	Meat, Poultry and Dairy
Food & Beverages	EIOAs	1. Sustainable Aloe vera production and processing	Food and Agriculture	Agricultural Products
Food & Beverages	EIOAs	2. Hides and skins aggregation and processing	Food and Agriculture	Meat, Poultry and Dairy
Financials Renewables & alternative energy services	IOAs	7. Financial services for small traders and cooperatives	Corporate and retail banking	Consumer Finance
Financials Renewables & alternative energy services	EIOAs	1. Micro-insurance for farmers and livestock	Insurance	Insurance
Financials Renewables & alternative energy services	IOAs	8. Renewable energy solutions for agri-businesses and value addition	Alternative energy	Solar Technology
Financials Renewables & alternative energy services	EIOAs	2. Biogas units for vendors at cross-border markets	Alternative energy	Biofuels
	IOAs	7. Cross-border sustainable tourism services	Hospitality & Recreation	Leisure Facilities

4 | BACKGROUND ON BORDERLAND SDG INVESTOR MAP



4.1 Context

Borderlands in Africa, home to 270 million inhabitants, are the territorial margins of nation-states-regions where border contact is a central feature of economic and political life. While these regions have historically facilitated cultural exchange,cross-border trade and innovation, they have often been left behind due to marginalization, poverty, conflicts, environmental changes, and weak governance. Despite their socio-economic potential, insecurity and lack of investment hinder development in these areas.

To address this, the United Nations Development Programme (UNDP) launched the Africa Borderlands Centre (ABC) in February 2021. The ABC focuses on using data, research, and policy to design development programs that support borderland communities. Listening to, engaging with, and providing programmatic assistance to these communities is essential for attaining the objective of ''leaving no one behind'' in achieving the Sustainable Development Goals (SDGs). In its first year of implementation, ABC was in 21 African countries, working intimately with communities to understand borderland dynamics and co-create development solutions.

One of the main challenges is the lack of public and private sector investment in African borderlands, which limits opportunities to achieve the SDGs. To bridge this gap, the private sector needs to be engaged more actively in developing sustainable, inclusive economies in these regions. The UNDP's Sustainable Finance Hub (SFH), including a dedicated Africa SFH for the region, launched the SDG Impact initiative. SDG Impact helps direct private investment towards opportunities that benefit both people and the environment. One of its signature tools is the SDG Investor Maps, which identify investment opportunities with significant potential to advance the achievement of SDGs.

The SDG Investor Maps have already been developed in several African countries, including Kenya[1] and Uganda,[2] highlighting Investment Opportunity Areas (IOAs) that can drive commercial viability while contributing to SDGs and are aligned with national policy priorities. These maps provide guidance on navigating policy and regulatory environments, helping governments and investors collaborate to fund sustainable development.

In African borderlands, special guidelines for Borderlands SDG Investor Maps[3] have been developed to attract investment to these marginalized areas. These guidelines are crucial for addressing the economic gaps in border regions by fostering infrastructure development, service provision, and employment opportunities. The first cross-border SDG Investor Map focusing on the cross broders areas of Kapenguria in West Pokot Kenya and Moroto in the Karamoja sub region in Uganda within the East Africa Community (EAC), exemplifies this approach, aiming to unlock the potential of borderlands through targeted investments and innovative business models.

[1]UNDP - SDG Investor Platform - Kenya. Accessible at: https://sdginvestorplatform.undp.org/country/kenya

[2]UNDP - SDG Investor Platform - Uganda. Accessible at: https://sdginvestorplatform.undp.org/country/uganda

[3]UNDP - ABC - Guidelines for Borderland SDG Investor Maps. Accessible at: https://www.undp.org/africa/africa-borderlands-centre/publications/guidelines-african-borderlands-sdg-investor-maps

By leveraging these tools, the UNDP aims to transform African borderlands into thriving regions, driving progress on the SDGs and Agenda 2063 through public-private partnerships and strategic investments.

4.2 Scope and Objectives

The objectives of this Borderland SDG Investor Map are to:

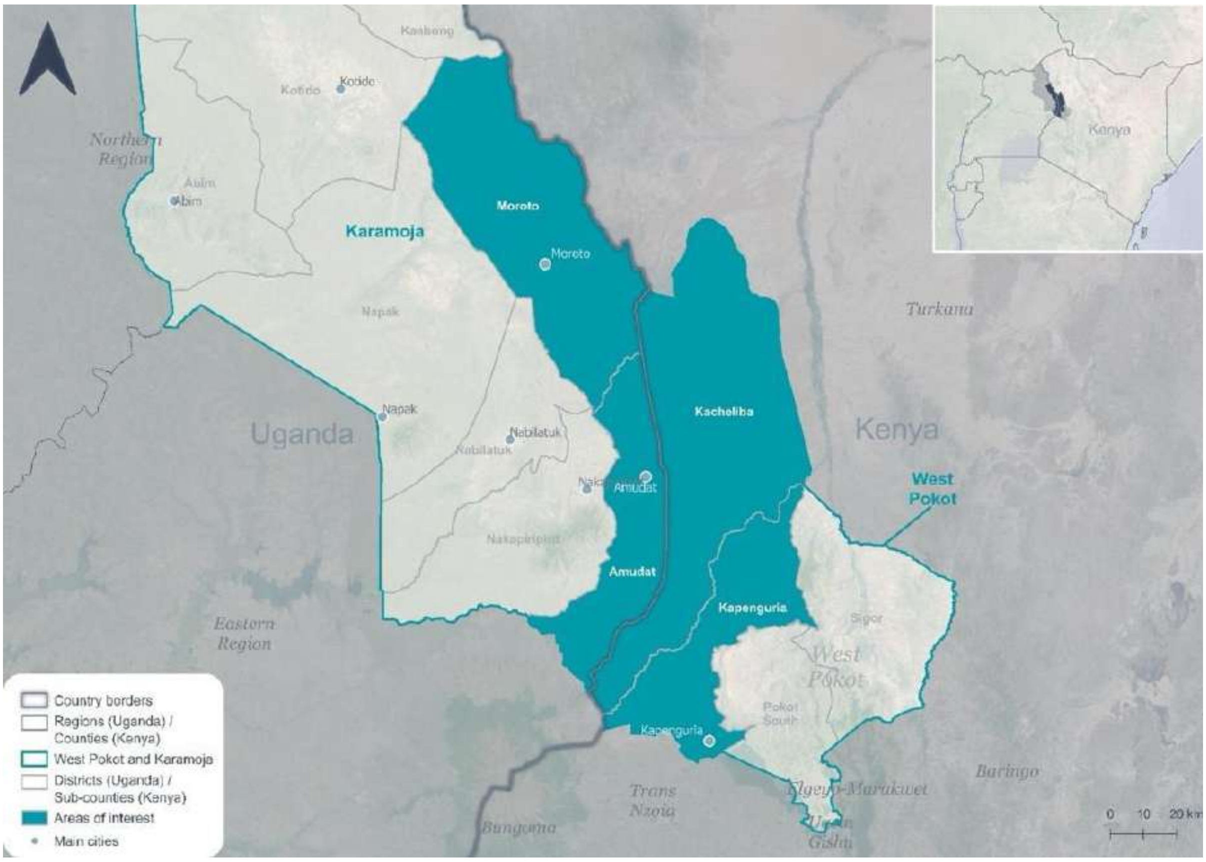
- **Identify market-ready and emerging opportunities for investment** across different sectors in the Kenya – Uganda borderlands to mobilize targeted private actors to meet development priorities and the SDGs, and boost intraregional trade, including invested opportunities that require documentation and publicity to interest private sector interest.
- **Utilize the established market intelligence** to support SDG-enabling capital deployment and ensure inclusive private sector participation and collaboration.
- **Contribute to investor awareness raising sessions** to share the findings from the borderlands SDG Investor Map and inspire investments in priority sectors.

The Borderlands SDG Investor Map will also inform a **Private Sector Investor Forum** as a platform to explore investment opportunities and cultivate partnerships.

This SDG Investor Map focuses on the Karamoja Cluster, which spans parts of the borderlands between Kenya and Uganda, specifically targeting the Karamoja region of Uganda and West Pokot County in Kenya. These areas share cultural and economic connections due to their proximity and cross-border interactions.

The project aligns with national and local development plans, and connects with broader regional efforts within the East African Community to enhance cross-border cooperation and development. While the initial focus is on the Kenya-Uganda border, the project framework is designed to be scalable across other African borderlands in the future.

Figure 1: Geographical scope of the Borderland SDG Investor Map



4.3 Methodology

As a starting point, the study leveraged the Country-level Investor Mapping exercises for Kenya and Uganda that were already conducted by UNDP, which provides a solid basis of information for a borderland investor mapping assessment. A succinct summary of the opportunities identified at the country level is provided below.

Box 1: Summary of main findings from Country-Level Investor Maps

In Uganda, the SGD investor map identifies three key priority sectors: food and beverage, infrastructure, and services, resulting in 23 Investment Opportunity Areas.The SDG investor map recommends investing in agro-industrialisation, real estate, waste management, infrastructure, and consumer services to address the needs of the Ugandan population.

In Kenya, five priority sectors were identified, including healthcare, financials, transportation, technology and communication, and renewable resources and alternative energy, leading to 19 IOAS.

While certain investment opportunities are adapted to the borderland areas of these countries, such as the implementation of affordable irrigation systems or the promotion of agriculture, the Kenya/Uganda cross-border area possesses distinct needs and opportunities that are not accurately captured or represented in a nationwide assessment. These distinctive characteristics underscore the necessity of a borderland-specific SDG assessment to precisely capture the IOAs of the region and contribute to its comprehensive development.

From there, the study involved an iterative, research-intensive process with close interaction and cooperation with multiple public and private sector stakeholders. The research team undertook secondary data research (on existing development needs, policy priorities, and market opportunities) and conducted in-depth consultations with public and private sector stakeholders to verify findings and contribute new insights.

The six-step methodology outlined in the guidelines was followed (see Figure 2), which filters national priorities down to sectors, subsectors, and districts, taking a cross-border approach. The data was analysed to identify Investment Opportunity Areas (IOAs) and data-backed business models. The findings will support the design of a structured roadmap for programmatic support, benefiting both public and private stakeholders based on the SDG Investor Map. This will create an enabling environment for SDG-aligned investments, foster deal origination, and create investment pipelines, leading to increased private sector investment in African borderlands.

This SDG Investor Map also seeks to identify Emerging Investment Opportunity Areas (EIOAs) that show strong potential within white spaces (see Box 1).

Box 2: Emerging opportunities from white spaces

A white space is an investment area that serves a strong development need but has not recorded a strong policy momentum by way of government commitments or has not seen significant private sector momentum due to the absence of viable business models, or both.

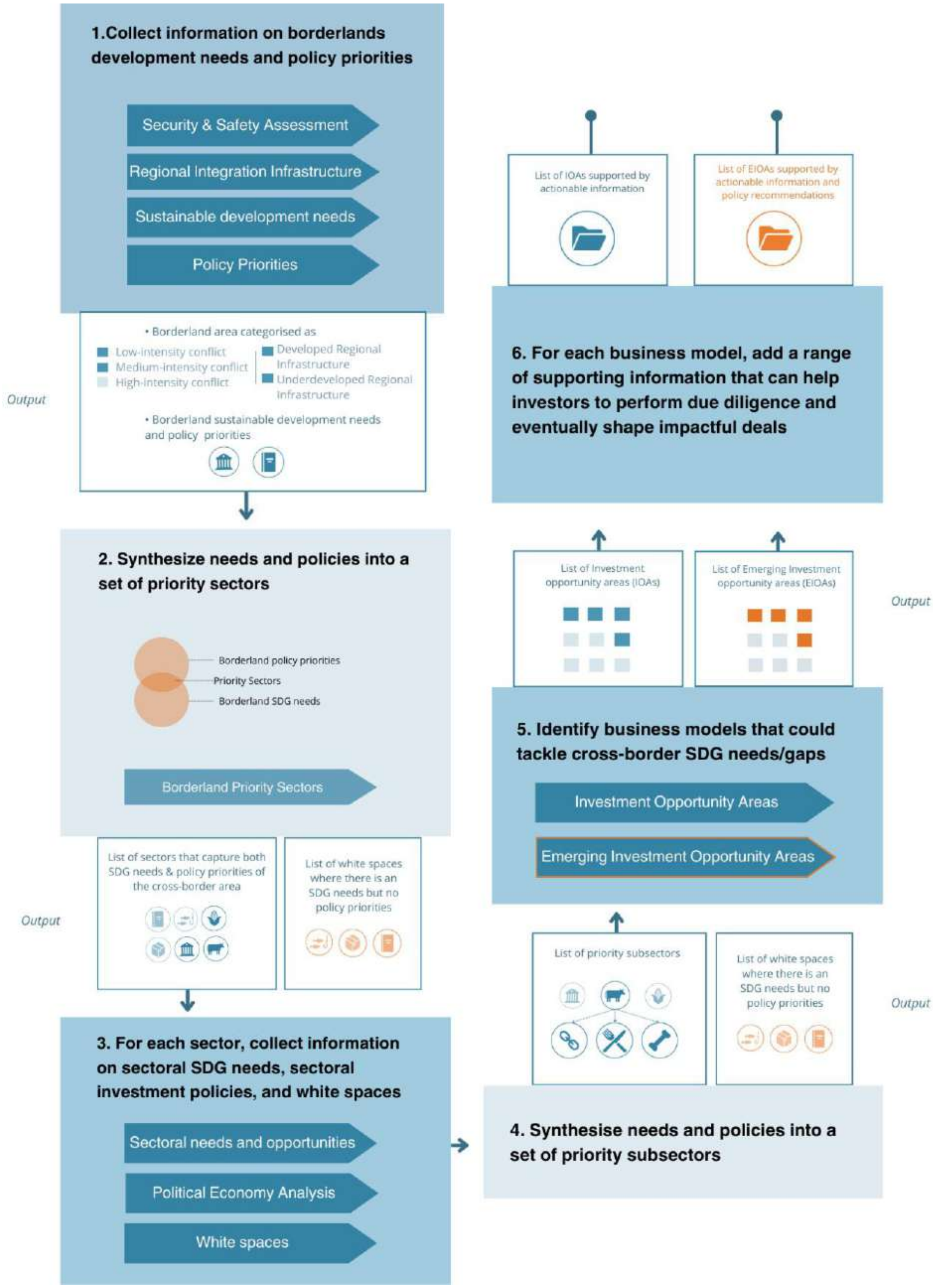
Two types of white spaces can be identified:

- **Policy White Space:** Opportunity areas that serve a development need but experience absence of private sector momentum due to policy and regulatory gaps.
- **Business Model White Space:** Opportunity areas that serve a development need but experience absence of private sector momentum in spite of a favorable policy and regulatory momentum.

The objective of documenting white spaces is to create awareness about potential emerging areas that fall outside the purview of current policy discourse and/or private sector interest. Supported by scalable business models and, in turn, sufficient capital inflows, they can help:

- **Spur discussion to make the policy ecosystem more amenable** for business models to develop and scale with enough incentives for capital mobilization from the private sector.
- **Provide inputs for UNDP's private sector engagement strategy** by identifying areas that need more development funding than others.
- **Provide empirical data to establish a tractable market gap** for enterprises and investors who are interested in crafting innovative business models that can outpace development challenges.

Figure 2: Overview of the 6-step Borderland SDG Investor Map Guidelines



5 | BORDERLAND BACKGROUND AND CONTEXT

5.1 Socio-economic context

West Pokot and Karamoja are neighbouring cross-border regions in Kenya and Uganda, where livelihoods depend primarily on livestock and small-scale farming. West Pokot County, located in Kenya's Rift Valley, spans 9,123 km[24] and is home to over 660,000 people, 95% of whom live in rural areas.[5] The county's diverse topography influences land use, with high-altitude areas favouring crop farming due to increased rainfall, while low-altitude regions rely on pastoralism due to drier conditions.[6] The Turkwel Dam provides hydroelectric power, supports fisheries, and attracts tourism, and the county participates in regional economic blocs such as the North Rift Economic Block (NOREB) and the Frontier Counties Development Council (FCDC).[7]

Karamoja, a semi-arid region in northeastern Uganda, faces greater marginalization but also shares similar agro-pastoral systems. Covering approximately 27,000 km² and home to 1.5 million people across eleven ethnic groups,[8] Karamoja is characterized by low and erratic rainfall and fragile ecological systems.[9] The region is divided into four livelihood zones—sorghum-livestock, mixed crop, maize-livestock, and apiary-potato—each shaped by altitude, rainfall, and soil type. While traditionally pastoral, many communities have shifted towards agro-pastoralism and small-scale trade due to climate shocks, population pressure, and sedentarization policies.[10]

Social and economic structures in these borderlands are shaped by strong ethnic ties, but modern pressures are transforming traditional ways of life. The border area has low population density outside the main urban hubs and infrastructure is limited(only one major cross-border road exists). The Pokot and the Karamojong practice agro-pastoralism, with extended families and clan systems playing a central role in local governance and conflict resolution. However, growing environmental stress, resource scarcity, and climate variability are challenging these traditional systems.[11]

Cross-border trade, especially in livestock, crops, and general merchandise, is a major economic activity but is highly climate-sensitive. Livestock trade (particularly cattle) is the region's most important commercial activity, with around 250,000 cattle present at the border at any given time. Seasonal migration is common, with Kenyan herders crossing into Uganda during droughts. Kenya also exports manufactured goods like clothing and food items to Uganda, while Uganda supplies crops and livestock. Trade volumes fluctuate depending on rainfall and climate shocks.

The region is highly exposed to environmental risks that disrupt mobility, trade, and food systems. Droughts, floods, livestock disease, and crop pests are prevalent across both regions. Vulnerable zones, including the Central Sorghum and Livestock Zone and Southeastern Cattle and Maize Zone, are particularly affected by climate extremes and inter-community conflict over grazing land and

[4]Third County Integrated Development Plan (CIDP) 2023-2027, County Government of West Pokot

[5]Kenya National Bureau of Statistics (KNBS). 2019 Kenya Population and Housing Census: Volume I–IV. Nairobi: KNBS, 2019.

[6]Ibid

[7]Third County Integrated Development Plan (CIDP) 2023-2027, County Government of West Pokot

[8]Uganda Bureau of Statistics (UBOS). National Population and Housing Census 2024: Preliminary Results. Kampala: UBOS, 2024.

[9]The Third Karamoja Integrated Development Plan (KIDP 3) 2021-2025, Ministry for Karamoja Affairs & The Office of the Prime Minister

[10]The Third Karamoja Integrated Development Plan (KIDP 3) 2021-2025, Ministry for Karamoja Affairs & The Office of the Prime Minister

[11]Assessing gender roles in a changing landscape: diversified agro-pastoralism in drylands of west Pokot, Kenya

water access.[12] Despite these challenges, both regions hold untapped potential for development through improved infrastructure, cross-border cooperation, and market integration.[13]

5.2 Borderland sustainable needs and policy priorities

5.2.1 Borderland sustainable needs

Agriculture and livestock form the backbone of livelihoods in Karamoja and West Pokot, yet productivity remains low due to climate variability, poor inputs, and weak market linkages.[14] The region holds over 5 million livestock, but disease, poor veterinary services, and limited processing keep income low.[15] Crop yields are also constrained by poor soils, limited irrigation, and high post-harvest losses.[16] Agro-processing is minimal, and existing facilities are underutilized due to poor infrastructure and unreliable power.[17] Environmental degradation, water scarcity, and climate shocks further threaten food and economic security.[18]

Basic infrastructure and services remain critically underdeveloped. Only 1% of households in Karamoja have grid electricity; roads are impassable in the rainy season; and mobile coverage is patchy, especially in remote areas.[19] Education and healthcare systems are under-resourced, with high dropout rates, teacher shortages, and poor health indicators, especially for women and children.[20]

The region's economic transformation is held back by limited diversification, weak financial systems, and underdeveloped sectors.[21] Despite rich mineral resources, mining remains informal, unsafe, and poorly regulated.[22] Financial access is also limited, with high interest rates and collateral requirements excluding many from formal credit.[23] SACCOs help, but demand far exceeds supply. Informal trade dominates the economy and inconsistent cross-border regulations and poor market infrastructure hinder growth.[24] Tourism has potential but is constrained by insecurity, poor accessibility, and limited investment.[25] Unlocking the region's potential will require investment in

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[12]FEWS, "Uganda-Karamoja Region: Livelihood Zones and Descriptions", 2013

[13]FEWS, 2011 for Kenya and 2014 for Uganda

[14]Ministry for Karamoja Affairs & Office of the Prime Minister. (2021). The Third Karamoja Integrated Development Plan (KIDP 3) 2021–2025.; and County Government of West Pokot. (2023). Third County Integrated Development Plan (CIDP) 2023–2027.

[15]Behnke, R.H. and Arasio, R.L., 2019. The Productivity and Economic Value of Livestock in Karamoja Sub-region, Uganda. Karamoja Resilience Support Unit, USAID/Uganda, UK aid, and Irish Aid, Kampala.

[16]IMARA Program. (2022). Value Chain Mapping and Analysis: Integrated Management of Natural Resources for Resilience in the ASAL.

[17]IGAD. (2017). Stocktaking Study of Complementary Livelihoods Market and Value Chain Analysis for Identified Priority Products in IGAD Region Cross Border Areas. Regional Pastoral Livelihoods Resilience Project (RPLRP).

[18]Auma, S., & Badr, N. (2022). Assessment of the Impacts of Climate Change on Livestock Water Sources and Livestock Production: Case Study, Karamoja Region of Uganda. World Water Policy.

[19]Ministry for Karamoja Affairs & Office of the Prime Minister. (2021). The Third Karamoja Integrated Development Plan (KIDP 3) 2021–2025.; and County Government of West Pokot. (2023). Third County Integrated Development Plan (CIDP) 2023–2027.

[20]Ibid

[21]Ibid

[22]Saferworld. Uganda's Mining Sector: Key Considerations for Conflict-Sensitive Investment in Karamoja. October 2017.

[23]Joseph Munene Mwaniki and Catherine Nyaboke Nyanga'au. "Impact of Financial Inclusion on Access to Finance for Startup and Business Operations in Arid and Semi-Arid Lands of Kenya" Kenya Institute for Public Policy Research and Analysis, KIPPRA Discussion Paper No. 307 (2023): https://kippra.or.ke/download/impact-of-financial-inclusion-on-access-to-finance-for-startup-and-business-operations-in-arid-and-semi-arid-lands-of-kenya-dp-307/?wpdmdl=15643&ind=1700784739397.

[24]Columbia SIPA. (2020). Ethical Cross-Border Trading between Kenya and Uganda by Women-led Micro and Small Enterprises.

[25]Manyindo, J., Mukuru, E., Massyn, P. J., Sagal, A., Banobi, H. 2014. An Assessment of the Potential for Community Tourism in the Karamoja Sub-Region. Maendeleo ya Jamii, Kampala, Uganda.

infrastructure, energy, education, water, inclusive finance, and natural resource management, supported by stronger governance and cross-border cooperation.

5.2.2 Borderland policy priorities

Policy priorities across the borderland align around five key themes: food security, natural resource management, infrastructure, human capital, and inclusive economic growth.[26] Both regions are investing in climate-resilient agriculture and livestock systems, with emphasis on improved veterinary services, pasture and water resource management, breed enhancement, and agro-processing to reduce post-harvest losses and strengthen food systems.

Natural resource management is a shared concern, with priorities including afforestation, land restoration, water harvesting, and formalization of artisanal mining to improve environmental governance and community benefit-sharing. Both governments aim to improve resilience to climate shocks through sustainable land use and climate-smart practices.

Infrastructure development focuses on expanding access to off-grid renewable energy, improving rural road networks, and enhancing digital connectivity to support service delivery, mobility, and market access. Human capital investments prioritize education and healthcare access, vocational training, and community health systems, with targeted support for women and youth.

Finally, both sides prioritize inclusive market systems, with investments in cooperatives, SACCOs, financial literacy, and small business support to improve access to capital. Economic diversification is encouraged through tourism development, value addition in agriculture, and support for cross-border trade, with regional coordination seen as essential for success.

5.3 Regional integration infrastructure and trade dynamics

5.3.1 Physical infrastructure and market access

Karamoja and West Pokot have historically lagged in infrastructure development, but recent investments have improved transportation networks, particularly through the expansion of tarmacked roads. Despite these advances, rural and cross-border roads remain underdeveloped, limiting security responses, trade efficiency, and market access. Extractive industries, such as limestone and marble mining, further strain road networks, necessitating continuous maintenance. Planned investments include expanding road networks and constructing new airport facilities to enhance commercial and security operations. While railway infrastructure remains absent in both regions, the extension of Kenya's Standard Gauge Railway (SGR) to Malaba may eventually benefit trade and connectivity. Market access is similarly constrained, with weak infrastructure and underdeveloped supply chains preventing traders from securing fair prices. Although new markets and livestock yards have been constructed in recent years, poor transport networks and limited rural access continue to undermine cross-border trade potential.[27]

5.3.2 Trade integration and regional economic frameworks

Kenya and Uganda's membership in regional economic blocs (e.g. COMESA, EAC, IGAD)[28] facilitates economic integration by reducing tariff and non-tariff barriers, streamlining customs procedures, and supporting cross-border trade. These frameworks enable free movement of people and goods,

[26] Ministry for Karamoja Affairs & Office of the Prime Minister. (2021). The Third Karamoja Integrated Development Plan (KIDP 3) 2021–2025.; and County Government of West Pokot. (2023). Third County Integrated Development Plan (CIDP) 2023–2027.

[27] Ibid

[28] Such as the East African Community (EAC), the Intergovernmental Authority on Development (IGAD), and the Common Market for Eastern and Southern Africa (COMESA).

fostering deeper ties between communities, particularly in borderlands where cultural and economic exchanges predate modern borders.[29] Additional trade facilitation initiatives, such as One-Stop Border Posts (OSBPs), aim to improve customs efficiency and logistics. The African Continental Free Trade Area (AfCFTA) further expands trade opportunities by reducing reliance on external markets, while Kenya's North Rift Economic Block (NOREB) and the Frontier Counties Development Council (FCDC) enhance economic cooperation and infrastructure development in border regions. However, despite these institutional frameworks, logistical barriers and weak enforcement continue to hinder seamless trade.[30]

5.3.3 Challenges in formal and informal trade

Despite formal trade frameworks, informal cross-border trade remains prevalent, driven by systemic barriers such as excessive bureaucracy, tax burdens, and inefficient border processes. Informal cross-border trade between Kenya and Uganda accounted for US$ 105.7 million in 2016, or 8.3% of total trade between the two countries.[31] Small-scale traders often face long clearance times (averaging over 300 hours for exports), high opportunity costs, and frequent regulatory changes that push them into illegality. Logistical constraints, including poor transport and inadequate border facilities, disproportionately impact women, forcing many to use informal routes despite exposure to harassment and extortion.Weak governance and inconsistent regulations across the EAC additionally contribute to informal trade, as many traders unknowingly transport restricted goods. While informal trade provides critical economic opportunities, it thrives in a system that lacks clear communication, efficient enforcement, and inclusive trade policies, highlighting the need for more structured and transparent trade facilitation measures.[32]

5.4 Security context

5.4.1 Overview

The security situation along the borderland is highly complex and multifaceted. The main sources of insecurity are competition for access to pasture and water, large-scale and violent cattle raiding, armed robbery of homesteads, violence against women and girls, human rights abuses and community-to-community attacks.[33] Numerous drivers fuel this instability, including climate change (with prolonged and increasingly frequent droughts), forced displacement and migration, high unemployment, insecure communal land tenure. Additionally, the commercialization of cattle rustling,[34] limited government presence and weak enforcement of the rule of law, and the widespread availability of firearms, all contribute to sustained tension in the area. Frequent inter-clan conflicts occur, notably among the Pokot, Pian, Karamojong, Turkana, Jie, Sebei, and Marakwet communities.[35]

[29]Key Informants with cross-border associations (P45), Impact foundation (P08), and expert consultants (P43)

[30]Ibid

[31]Ethical Cross-Border Trading between Kenya and Uganda by Women-led Micro and Small Enterprises, Columbia SIPA, 2020

[32]Columbia SIPA. (2020). Ethical Cross-Border Trading between Kenya and Uganda by Women-led Micro and Small Enterprises.

[33]Stites, E. (2022). Conflict in Karamoja: A Synthesis of Historical and Current Perspectives, 1920–2022. Karamoja Resilience Support Unit (KRSU), Feinstein International Center, Tufts University.

[34]Ibid.

[35]Conciliation Resources & Institute of Development Studies. Peace and Security for Pastoralist Communities in African Borderlands. Accord Insight No. 5, May 2024. Available at: https://rc-services-assets.s3.eu-west-1.amazonaws.com/s3fs-public/Accord%20Insight%205%20-%20Peace%20and%20security%20for%20pastoralist%20communities%20in%20African%20borderlands.pdf.

5.4.2 Recent developments

In 2024 and early 2025, security has improved significantly due to enhanced cross-border coordination between Kenya and Uganda and ongoing peace dialogues. Both Kenya and Uganda have implemented policies and programs to stabilize the region, providing a promising institutional framework for investment. Conflict levels in Karamoja, previously high, have declined, though sporadic violence persists, especially in remote areas. Cross-border tensions remain a challenge, particularly in Karita (Amudat), Kobebe (Moroto District), and Kibish (Kenya-Ethiopia-South Sudan border). While optimism is growing, and governments are committed to long-term peace, investors should remain cautious of localized instability.[36]

5.4.3 Security risks for private actors

Despite improvements, insecurity remains a major barrier to economic development, deterring investment and complicating business operations. The main risks include armed cattle rustling, highway banditry, and sporadic inter-communal violence, particularly in border districts. The relationship between local communities and law enforcement remains tense, with reports of clashes with police, targeted killings, and occasional human rights abuses.[37] Businesses operating in agriculture, trade, or infrastructure development should anticipate disruptions due to crime, extortion, or security-related mobility restrictions.

5.4.4 Mitigation strategies for investors

Investors can navigate these risks by leveraging partnerships with local institutions, security agencies, and community peace committees. The region has seen increasing engagement in formalized peace dialogues, and businesses that incorporate local stakeholders and community leaders into their operational models tend to experience better security outcomes. Companies can also reduce risks by supporting local economic initiatives, such as cross-border markets, cooperatives, and vocational training programs, which not only mitigate tensions but also enhance social buy-in and operational stability. Establishing clear security protocols, utilizing local intelligence networks, and engaging in corporate social responsibility (CSR) projects can further bolster resilience against security threats.

5.5 Political Economy Context

5.5.1 The role of traditional and religious institutions

Traditional authorities play a crucial role in resource management, conflict resolution, and environmental oversight, making them key partners in any initiative. These leaders influence land use decisions, pastoralist movements, and cross-border peace efforts, with their approval often determining whether projects gain local support. Similarly, religious institutions hold deep trust within communities and serve as key actors in education, healthcare, and peacebuilding. Investors seeking long-term success in the region must integrate these traditional structures into their engagement strategies to enhance legitimacy and ensure community buy-in.[38]

[36]Armed Conflict Location & Event Data Project (ACLED). (2025). Regional Overview – Africa, February 2025. https://acleddata.com/2025/02/10/africa-overview-february-2025

[37]Interview with Pastoralist-focused research & advocacy organisation (P06)

[38]USAID. (2023). Applied Political Economy Analysis for the Karamoja Cluster. Washington, DC: USAID.

5.5.2 Social structures, gender norms, and cultural considerations

Cultural beliefs deeply influence economic participation, gender roles, and resource management. While livestock remains the foundation of economic life, pastoralists prioritize cattle for milk rather than meat or hides, limiting leather industry opportunities but creating potential in dairy processing.[39] Women face structural barriers to financial independence, with traditional norms restricting their ownership of livestock and land.[40] However, emerging gender-sensitive initiatives are opening new avenues for economic participation. Financial institutions also face challenges, as past experiences with aggressive debt collection have fostered widespread distrust of formal lending systems.[41] To succeed, investors must adopt culturally sensitive models that align with local economic practices, integrate flexible financial services, and support community-driven development approaches.

5.5.3 Leveraging the presence of development partners

For investors seeking to establish sustainable and impactful businesses in the borderland, engaging with development partners is key. In West Pokot and Karamoja, a range of development organizations (including SIKOM, Mercy Corps, Caritas, and KRSU) work on peacebuilding, climate resilience, food security, and market development with support from major donors like USAID, the EU, and the World Bank.[42] These actors bring deep local knowledge, trust, and networks, making them valuable partners for investors. Collaborating with them can reduce risk, align investments with local priorities, unlock blended finance, and ensure social impact and long-term sustainability.

Box 3: Recent developments in international aid and uncertainties

Announced on Jan 24, 2025, the decision by US President D. Trump to halt all USAID-funded activities, coupled with drastic budget reductions in aid by several European governments, introduces significant uncertainty for development programs in the borderland. These cuts are likely to impact key initiatives in private sector development and market systems, particularly those supported by USAID and partners like World Vision, which have played a crucial role in fostering livelihoods, cross-border trade, and economic resilience. The potential reduction or cessation of these programs may leave gaps in access to finance, market linkages, and technical assistance, affecting both local businesses and investors seeking entry into the region. However, this shift also creates an opportunity for governments' core funding and private sector investors to step in and bridge the gap, filling the void left by aid agencies and establishing more sustainable, commercially driven solutions. While navigating this uncertainty requires careful risk assessment and adaptability, those who proactively engage with local actors and leverage existing informal trade structures may position themselves as key drivers of economic transformation in the region.

[39] Interview with NGO focusing on governance, climate change, nutrition and health (P16)

[40] Interview with NGO focusing on poverty and hunger (P12)

[41] Interview with NGO focusing on governance, climate change, nutrition and health (P16)

[42] Intergovernmental Authority on Development (IGAD). (2019). Mapping of Actors in the Karamoja Cluster.

6 | CROSS-BORDER INVESTMENT OPPORTUNITY AREAS

6.1 Overview of cross-border IOAs and EIOAs

Sector	Type	Opportunity	Subsector	Industry
Food & Beverages	IOAs	1. Commercial beekeeping and honey processing	Food and Agriculture	Processed Foods
		2. Aggregated warehousing and cold storage solutions	Food and Agriculture	Agricultural Products
		3. Animal feed production and distribution	Food and Agriculture	Meat, Poultry and Dairy
		4. Livestock processing and value addition	Food and Agriculture	Meat, Poultry and Dairy
		5. Dairy production, aggregation and processing	Food and Agriculture	Meat, Poultry and Dairy
		6. Veterinary services and breed improvement	Food and Agriculture	Meat, Poultry and Dairy
	EIOAs	1. Sustainable Aloe vera production and processing	Food and Agriculture	Agricultural Products
		2. Hides and skins aggregation and processing	Food and Agriculture	Meat, Poultry and Dairy

Sector	Type	Opportunity	Subsector	Industry
Financials Renewables & alternative energy services	IOAs	7. Financial services for small traders and cooperatives	Corporate and retail banking	Consumer Finance
	EIOAs	1. Micro-insurance for farmers and livestock	Insurance	Insurance

Sector	Type	Opportunity	Subsector	Industry
	IOAs	8. Renewable energy solutions for agri-businesses and value addition	Alternative energy	Solar Technology
	EIOAs	2. Biogas units for vendors at cross-border markets	Alternative energy	Biofuels

Sector	Type	Opportunity	Subsector	Industry
	IOAs	9. Cross-border sustainable tourism services	Hospitality & Recreation	Leisure Facilities

6.2 Agricultural production and processing

6.2.1 Cross-border needs

The borderland faces significant, interconnected challenges in agricultural production that necessitate a coordinated, cross-border approach to development, focused on enhancing food security and improving pastoral and agro-pastoral livelihoods. Both regions are characterized by low agricultural productivity stemming from a combination of climatic, infrastructural, and market-related constraints. While agriculture is the primary economic activity, with the majority engaged in smallholder farming, agro-pastoralism, and pastoralism, frequent droughts, driven by the region's semi-arid climate and high dependence on rainfall, regularly lead to crop failures and food insecurity.[43] For example, a significant portion of Karamoja's population consistently faces crisis or emergency levels of food insecurity, often exceeding 30%.[44] Similar challenges are mirrored in West Pokot, albeit with slightly better rainfall in some areas.[45]

Improving crop production sustainably requires addressing specific constraints related to land quality, mechanization, and irrigation. In Karamoja, despite the expansion of cultivation of crops like sorghum, maize, millet, and beans, yields remain suppressed by factors such as poor soil fertility, limited use of modern farming techniques, and a near-total absence of substantial irrigation infrastructure.[46] Less than 1% of cultivated land in Karamoja was under irrigation in 2018.[47] West Pokot faces similar issues, with maize, beans, coffee, and horticultural crops suffering from erratic weather, significant post-harvest losses (estimated at 30-40% for some crops regionally),[48] and underdeveloped value chains.[49] Critically, both regions share the burden of inadequate storage facilities and extremely limited access to affordable agricultural finance, hindering farmers' ability to invest in improvements and scale up production.[50]

The almost complete absence of significant agro-processing capabilities represents a major bottleneck in the development of the agricultural sector across the borderland. The vast majority of agricultural produce is sold in its raw, unprocessed form, resulting in drastically reduced profit margins for farmers and reinforcing a cycle of dependence on external markets.[51] The few existing processing initiatives, such as the Nasukuta abattoir and mango processing factory in Lomut (West Pokot), are often underutilized or non-operational due to a combination of infrastructure deficits (especially unreliable electricity and poor road networks) and weak, unreliable supply chains.[52] In Karamoja, agro-processing remains nascent, with only a handful of very small-scale milling and storage facilities, offering minimal value addition.[53]

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[43] FEWS NET. (Various Years). East Africa Food Security Outlooks. Famine Early Warning Systems Network.

[44] Integrated Food Security Phase Classification (IPC). (Various Years). Karamoja Region IPC Analysis.

[45] Republic of Kenya. (2018). West Pokot County Integrated Development Plan (CIDP) 2018-2022.

[46] Karamoja Livelihood Programme (KALIP). Annual Reports.

[47] Uganda Bureau of Statistics (UBOS). (2018). Statistical Abstract 2018. Kampala, Uganda.

[48] Food and Agriculture Organization of the United Nations (FAO). (2011). Global Food Losses and Food Waste.

[49] Republic of Kenya. (2023). West Pokot County Integrated Development Plan (CIDP) 2023-2027.

[50] Karamoja Resilience Support Unit (2022). Karamoja Donor Mapping Report—2022. Karamoja Resilience Support Unit II, United States Agency for International Development (USAID)/Uganda, Kampala.

[51] Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), Uganda. Agricultural Sector Strategic Plans.

[52] Republic of Kenya. (2023). West Pokot County Integrated Development Plan (CIDP) 2023-2027.

[53] Government of Uganda. (2020). Karamoja Integrated Development Plan III (KIDP3) 2020/21 – 2024/25.

Crucial support and funding are needed to overcome significant supply chain and finance obstacles. Poor rural infrastructure, particularly the inadequate road network and unreliable electricity supply, significantly impede the establishment and operation of processing facilities.[54] Furthermore, small-scale processors in both Karamoja and West Pokot face substantial difficulties in accessing affordable financing for essential machinery and equipment. Inconsistent supply of raw materials, stemming from the seasonality of agricultural production, also disrupts operational efficiency and profitability. Addressing these challenges requires a multi-faceted approach, including strengthening value chain integration, improving rural infrastructure, and expanding access to tailored financial products for agro-processors. This necessitates a cross-border strategy to ensure consistent supply and economies of scale.

[54]World Bank. Reports on infrastructure in Uganda and Kenya.

6.2.2 Cross-border policy priorities

Both West Pokot and Karamoja have prioritized agricultural transformation in their development plans (CIDP and KIDP3, respectively),[55] focusing on boosting production and promoting agro-processing. While approaches differ based on local context, there are opportunities for cross-border synergies:

- **West Pokot's CIDP** emphasizes increasing productivity of both staple and high-value crops. Key strategies involve improving access to quality inputs, promoting climate-smart techniques, expanding irrigation, and implementing soil/water conservation. Value addition through processing (e.g., mango plants) is central to reducing post-harvest losses and increasing incomes.
- **Karamoja's KIDP3** similarly targets enhanced crop production, particularly in "greenbelt" areas, promoting climate-suitable crops and horticulture. Priorities include improved access to climate-smart inputs, adoption of resilient crop varieties, and strengthened extension services. The plan also emphasizes improved pre- and post-harvest handling (storage, equipment) and supports large-scale, climate-smart commercial farming with investments in mechanization, irrigation, and processing

These priorities mirror national plans, Kenya's Agricultural Sector Transformation and Growth Strategy (ASTGS)[56] and Uganda's National Agriculture Policy (NAP),[57] both of which aim to modernize agriculture and transform smallholder livelihoods.

[55]Republic of Kenya. (2023). West Pokot County Integrated Development Plan (CIDP) 2023-2027; and Government of Uganda. (2020). Karamoja Integrated Development Plan III (KIDP3) 2020/21 – 2024/25.

[56]Republic of Kenya. (n.d.). Agricultural Sector Transformation and Growth Strategy (2019-2029). https://asdsp.kilimo.go.ke/wp-content/uploads/2023/10/ASTGS-Full-Version-1.pdf

[57]Republic of Uganda. (2013). National Agriculture Policy. https://www.agriculture.go.ug/wp-content/uploads/2019/04/National-Agriculture-Policy.pdf

Overlapping cross-border priorities:

- Promote climate-smart agricultural practices and resilient crop varieties
- Establish joint post-harvest handling and storage infrastructure
- Develop shared agro-processing facilities
- Strengthen cross-border market linkages and information systems
- Facilitate access to affordable agricultural financing and insurance products
- Support joint training programs targeting youth and women in agribusiness
- Harmonize agricultural input subsidy programs (seeds, fertilizers)
- Invest in shared market infrastructure and transportation networks

6.2.3 Rationale for sector prioritization

01

Addresses fundamental food security needs: Both regions face persistent food insecurity due to low agricultural productivity and vulnerability to climate shocks. Investing in this sector directly tackles these challenges by boosting local food production, enhancing resilience, and improving access to nutritious food, thus fulfilling a critical cross-border development need.

02

Enhances livelihood resilience for vulnerable populations: Pastoral and agro-pastoral communities are highly susceptible to climate variability. Prioritizing agricultural production and processing diversifies income sources, reduces reliance on livestock alone, and builds more resilient livelihoods, directly addressing a key shared vulnerability across the borderland, highlighted in both regions' development plans.

03

Capitalizes on shared agro-ecological potential: Both Karamoja and West Pokot possess significant, yet underutilized, potential for crop production and value addition, particularly in areas with suitable agro-ecological conditions. Joint investments in processing and market infrastructure can unlock this potential, creating economies of scale and benefiting both regions, aligning with stated policy priorities.

04

Fosters cross-border economic Integration: Focusing on shared value chains (e.g., honey, grains, fruits) promotes economic cooperation and interdependence between the two regions. This can lead to increased trade, reduced conflict over resources, and enhanced regional stability, directly reflecting the cross-border priorities of improved market access and collaboration.

05

Leverages existing policy alignment: The development plans of both West Pokot (CIDP) and Karamoja (KIDP3) explicitly prioritize agricultural production and processing, including value addition and market linkages. Investing in this sector directly supports these pre-existing policy commitments, ensuring strong local ownership and increasing the likelihood of project success and sustainability.

6.2.4 Cross-border IOA and EIOA close-ups

Cross-border IOA 1

Commercial beekeeping and honey processing

Beekeeping is already widely practiced across the borderlands, but its commercial potential remains largely untapped. The region's diverse flora creates ideal conditions for high-quality honey production, a resource valued for its unique flavours and medicinal properties. By transitioning from rudimentary methods to modern beekeeping practices, and by addressing critical gaps in processing and market access, this sector can significantly enhance livelihoods. Investments in improved hives, processing infrastructure, and cooperative development will empower local communities, particularly women who are already active in the trade, to capitalize on the growing demand for premium honey in both domestic and export markets. This opportunity aligns with regional development priorities by fostering sustainable income generation, promoting biodiversity, and unlocking the potential of a burgeoning sector with proven returns.

Business model	Develop and operate modern beekeeping hubs with high-yield hives, integrated honey processing, and branded packaging to produce premium-quality honey for domestic and export markets. Train local beekeepers in sustainable practices and provide access to affordable, high-quality equipment. Target local, regional, and specialty export markets with a focus on organic and fair-trade certifications. Secure financing through a combination of grants, micro-loans for beekeepers, and equity investment for the centralized processing facility.
Beneficiaries	Rural beekeepers and cooperative members will benefit from increased income and skills through training and market access. Women already active in informal beekeeping will gain formal income opportunities and leadership roles in cooperatives. The model will also benefit local communities more generally through job creation in processing, packaging, and distribution, as well as support wider economic growth in the region.
Economic factors	Honey production in the borderland is estimated at 550MT/year, with significant untapped potential driven by a growing regional and global demand. ROI is estimated at 25-30%, factoring in security risks and logistical inefficiencies. Ticket sizes vary (e.g., $50,000 - $200,000+, up to $2M depending on scale), including costs for training, equipment, processing facility, and marketing materials. Returns are expected in 3-5 years, with revenue from year 1 and profitability by year 3 as processing scales.[58]
Enabling factors	Existing traditional beekeeping knowledge provides a foundation to build upon. Strong policy alignment in both West Pokot and Karamoja prioritizes honey production and value addition. The region's rich floral biodiversity offers a natural advantage. Established cooperatives provide existing organizational structures for scaling up.
Risk factors	Climate change (droughts impacting flowering), bee diseases/pests, and market price fluctuations threaten profitability. Competition from other producers and maintaining quality standards across dispersed beekeepers present challenges. Insecurity in parts of the region, alongside informality and potential barriers in cross-border trade, could disrupt operations and market access.
Development Outcome	Increased household incomes for beekeepers, improved food security through diversified livelihoods, and enhanced environmental sustainability via pollination services are expected. The model will empower women and marginalized groups, promoting inclusive participation in the honey trade and processing. Job creation in processing and related activities will further contribute to economic growth.
Cases in IOA space	Cabesi Honey (West Pokot) aggregates and processes honey from 3,000 farmers, producing 10-15 tons annually for Kenyan and Ugandan markets, with plans to expand into propolis and wax. Kara-Tunga Honey, collaborating with Karamoja beekeepers and Malaika Honey, established a Honey Centre in Moroto, offering market access, training, and equipment.[59]

[58]Estimations based on interview data with honey producers, cooperatives, and district/county officers

[59]Interviews with honey producers in Karamoja (P_63, P_70)

Cross-border IOA 2

Aggregated warehousing and cold storage

Post-harvest losses and poor storage are major barriers to agricultural growth in the borderland. Aggregated warehousing and cold storage solutions are critical for unlocking the region’s potential, addressing constraints in market access and food preservation. The region's diverse crop production, from staples like sorghum and maize to high-value horticultural crops and emerging cash crops like coffee and mangoes, suffers from inadequate storage and processing infrastructure. This leads to spoilage, price volatility, and limited market reach, hindering farmers' income and food security. Investing in strategically located, cross-border warehousing and cold storage facilities will enable farmers to store produce safely, aggregate volumes for better market access, and stabilize supply chains. This initiative supports regional development by enhancing agricultural productivity, promoting cross-border trade, and fostering economic resilience, particularly for perishable goods that require temperature-controlled environments.

Business model	Establish cross-border warehousing and cold storage hubs at key trade corridors between Karamoja and West Pokot to facilitate regional trade. Aggregate and store grains, fruits, and perishable goods to reduce post-harvest losses and improve market stability. Provide training on post-harvest handling and quality standards for cross-border trade. Lease storage space to cooperatives, traders, and agribusinesses engaged in cross-border commerce. Secure financing through a blend of development grants (for capacity building), concessional loans, and private equity investment, leveraging government support and guarantees. Main value chains: staple grains (maize, sorghum, beans), horticultural crops (tomatoes, onions, mangoes), coffee, Arabic gum, cashew nuts
Beneficiaries	The investment will benefit smallholder farmers, cooperatives, and agribusinesses by reducing post-harvest losses and ensuring better market access. Cross-border traders and retailers will gain from improved storage and cold chain infrastructure, enabling higher-value trade between Karamoja and West Pokot. Consumers will also benefit from increased availability and potentially lower, more stable prices.
Economic factors	Significant post-harvest losses represent a large, addressable market that is growing, driven by increasing cross-border agricultural trade. Return on investment is projected at 30-40% due to reduced post-harvest losses and improved market efficiency. Ticket size varies, with warehouse construction ranging from \$200,000 to \$500,000, and cold storage facilities requiring \$100,000 to \$300,000. Investment timeframe is 3-5 years, with positive cash flow expected within 1-2 years and full return within 5-7 years.[60]
Enabling factors	Government policies support market infrastructure and cross-border trade. Existing trade routes and farmer cooperatives provide a foundation for aggregation. Development partners and financial institutions are also prioritizing storage solutions, creating opportunities for blended financing.
Risk factors	Unreliable electricity supply could compromise cold storage operations. Low farmer uptake due to affordability or lack of awareness poses a risk. Poor road infrastructure can hinder access to facilities. Insecurity in some areas and potential cross-border trade barriers could disrupt operations.
Development Outcome	Increased food security and reduced post-harvest losses will improve farmer incomes and market stability. Strengthened cross-border trade will enhance economic integration and resilience. Job creation in storage, logistics, and processing will benefit local communities. Improved market access for women and marginalized farmers will promote inclusive economic participation and empowerment.
Cases in IOA space	Examples are limited in the borderland, but successful models exist in Kenya and Uganda. In Kenya, SokoFresh offers off-grid cold storage solutions to agribusinesses and smallholders, providing flexible rental models that enhance market access and reduce post-harvest losses. In Uganda, the Mukwano Group integrates bulk storage and shipment services within its diversified operations, supporting agricultural value chains through logistics and storage solutions.

[60] Estimations based on interviews with district officials, heads of market associations, and regional benchmarks.

Emerging IOA 1

Sustainable Aloe vera production and processing

Policy white space

Aloe vera grows abundantly across the borderland, yet its commercial potential remains largely untapped. While traditionally used, current harvesting practices are unsustainable and have led to regulatory restrictions, particularly in West Pokot. This highlights an urgent need to shift from informal exploitation to a sustainable, market-driven industry. Aloe production and processing offers a climate-resilient livelihood option, particularly for women and marginalized groups already engaged in the trade. Despite its recognition in local development plans, the sector faces policy and regulatory gaps that deter private investment. Harmonizing regulations and formalizing value chains across the border would unlock significant potential. The existing informal market shows clear demand, while value-added aloe products offer higher income opportunities. With cross-border supply chains and end markets already in motion, coordinated investment and policy action are essential to transform this overlooked natural asset into a viable economic sector.

Business model	Establish and operate integrated aloe vera production hubs with contract farming, sustainable harvesting training, and processing units to produce gel, powder, and extracts. Target cosmetic, pharmaceutical, and beverage companies in regional and international markets, emphasizing organic and fair-trade certifications. Secure financing through a combination of impact investment, development grants (focused on community training and sustainable practices), and commercial loans for processing infrastructure.
Beneficiaries	Farmers, collectors, traders, consumers, and transporters will benefit through income generation, improved value chains, and market access. Women, youth, and pastoralists will gain new livelihood opportunities and better access to formal markets. Aloe cultivation will also support land restoration and help conserve local biodiversity in arid regions.
Economic factors	The global aloe vera market is projected to reach USD 1.33 billion by 2031 (6.80% CAGR), demonstrating strong demand. While specific regional data is limited, existing informal trade confirms local demand. High return on investment (>25%) is anticipated, driven by low input costs and high-value end products, dependent on scale and quality. Investment sizes range from medium to large. Returns are expected within 2-3 years, as plants reach commercial yield in year two, with multiple harvests possible annually.[62]
Enabling factors	Abundant wild aloe vera growth in the region provides a readily available resource base. Traditional knowledge of aloe's uses exists within communities. Local development plans acknowledge aloe's potential, indicating some policy awareness. Growing consumer preference for natural and organic products creates favourable market conditions. Existing, albeit informal trade, demonstrates local collection capacities.
Risk factors	Unsustainable harvesting practices threaten resource depletion. Lack of clear regulations and policies creates investment uncertainty. Climate change (drought) can impact aloe growth. Cross-border trade informality and potential conflicts over resource access pose additional risks.
Development Outcome	Sustainable aloe vera production and processing will create new income streams for marginalized communities, particularly women involved in harvesting. Formal employment in processing and related activities will boost local economies. Increased household incomes will improve food security, while value-addition will foster economic diversification.
Existing barriers / gaps	Lack of clear regulations and policies governing aloe vera harvesting and trade (creating investor uncertainty); the absence of specific national standards for aloe vera processing, certification, and export; limited policy recognition in key national planning framework, resulting in little public investment or structured incentives.
Policy recommendations	Integrate aloe vera into national development plans and agri-value chain strategies, coupled with clear sustainability guidelines and streamlined permitting processes; Develop and implement national standards for aloe vera processing and export, including certification protocols aligned with cosmetic and pharmaceutical markets.

[61]Estimations based on interviews data with district officials, farmers cooperatives, and agribusiness experts with knowledge of the borderland area.

6.3 Livestock production and processing

6.3.1 Cross-border needs

Livestock, particularly cattle, sheep, and goats, forms the cornerstone of livelihoods in the borderland, but the sector faces significant challenges that require coordinated, cross-border development interventions. Pastoralism and agro-pastoralism are the dominant economic activities, with livestock serving as a crucial source of income, food security, and social status. However, productivity remains low due to a confluence of factors, including climate variability, land degradation, inadequate veterinary services, and limited market access.[63] In West Pokot, livestock numbers are substantial (671,000 cattle, 656,000 sheep, 820,000 goats in a 2019 census,[64] while Karamoja boasts even larger numbers (estimated at 2.2 million cattle, 2.0 million goats, and 1.7 million sheep in 2008/9[65] - acknowledging this data is older). These figures highlight the scale of the sector and its importance, but also underscore the magnitude of the challenges.

The harsh, semi-arid climate and increasing frequency of droughts represent a major, ongoing threat to livestock production in both Karamoja and West Pokot, necessitating improved resilience-building measures. Recurrent droughts lead to pasture scarcity, water shortages, livestock malnutrition, and increased mortality rates. This vulnerability is compounded by land degradation and overgrazing, further reducing the carrying capacity of the rangelands.[66] While seasonal cross-border livestock movement is a traditional coping mechanism, it is often hampered by inconsistent policies, occasional border restrictions, and the risk of conflict, making coordinated transboundary resource management essential.[67]

Limited access to essential veterinary services and improved livestock breeds significantly hinders productivity and increases vulnerability to disease outbreaks across the borderland. Both regions suffer from a shortage of trained veterinary personnel, inadequate vaccine supplies, and weak disease surveillance systems. This results in frequent outbreaks of diseases like foot-and-mouth disease, peste des petits ruminants (PPR), and tick-borne infections, causing significant economic losses. The adoption of improved, more resilient livestock breeds is also low, further limiting productivity and adaptation to the changing climate.[68]

The almost complete absence of value addition and processing facilities for livestock products represents a major constraint to economic development in the borderland. The vast majority of livestock and livestock products (meat, milk, hides) are sold raw, often through informal channels and to traders who control market information. This results in low profit margins for pastoralists and a missed opportunity to capture greater value within the region.[69] The few existing processing

[63] Auma, S., & Badr, N. (2022). Assessment of the Impacts of Climate Change on Livestock Water Sources and Livestock Production: Case Study, Karamoja Region of Uganda. World Water Policy.

[64] Kenya National Bureau of Statistics (KNBS). (2019). 2019 Kenya Population and Housing Census - Volume IV: Distribution of Population by Socio-Economic Characteristics. Nairobi, Kenya.

[65] Uganda Bureau of Statistics (UBOS). (2010). The National Livestock Census Report 2008. Kampala, Uganda. (This is the source for the Karamoja livestock figures.

[66] Ministry for Karamoja Affairs & Office of the Prime Minister. (2021). The Third Karamoja Integrated Development Plan (KIDP 3) 2021–2025.; and County Government of West Pokot. (2023). Third County Integrated Development Plan (CIDP) 2023–2027.

[67] Columbia SIPA. (2020). Ethical Cross-Border Trading between Kenya and Uganda by Women-led Micro and Small Enterprises.

[68] Interviews with agrovet shops (P_64, P_71, P_74) and Moroto District Veterinary Officer (P_57)

[69] Interviews with the Managers of the livestock market in Moroto (P_48) and of the Moroto slaughterhouse (P_53)

facilities, like the Nasukuta abattoir in West Pokot, are often underutilized or non-operational due to infrastructure deficits (poor roads, unreliable electricity) and weak supply chains. In Karamoja, processing is even more limited, with only a few small-scale initiatives. The high offtake value in Karamoja (176 million USD in 2018-19),[70] mostly from live animal sales, emphasizes the potential gains from value addition.

6.3.2 Cross-border policy priorities

Both West Pokot and Karamoja have outlined policy priorities within their integrated development plans (CIDPs and KIDP3, respectively) that aim to transform the livestock sector, with a strong emphasis on enhancing production, improving marketing, and controlling diseases. While tailored to their specific contexts, significant areas of convergence exist, presenting opportunities for coordinated cross-border initiatives.

- **West Pokot's CIDP** prioritizes improving livestock breeds (dairy cattle, Sahiwal, Boran, Dorper sheep, Galla goats, etc.), promoting sustainable feed and rangeland management, and diversifying livestock-based livelihoods. Key strategies include establishing strategic feed reserves, investing in water infrastructure for livestock, and upgrading the Nasukuta Livestock Improvement Centre. The plan also emphasizes improving livestock market access, promoting value addition (leather, meat, milk processing), and developing policies for cross-border livestock movement and market regulation. Disease control, through expanded veterinary services and vaccination campaigns, is a central pillar.
- **Karamoja's KIDP3** similarly prioritizes the introduction of improved breeds and the strengthening livestock of farmer associations. A strong focus is placed on modernizing livestock production through training in Artificial Insemination (AI) and improved husbandry practices. The plan also promotes expanding livestock value chains (meat, dairy, hides/skins, beekeeping) and developing infrastructure (cold chain storage, AI centers, dairy processing plants). Enhancing fodder production, sustainable rangeland management, and strengthening livestock market infrastructure are key components. Disease management, through enhanced veterinary services and surveillance, is also prioritized.

[70]Karamoja Livelihood Programme (KALIP). (Various Years). Annual Reports.

Overlapping cross-border priorities:

- Harmonize livestock disease surveillance and control measures
- Establish joint livestock breeding programs
- Develop shared rangeland management strategies
- Invest in joint livestock market infrastructure and information systems
- Promote value addition for livestock products
- Support the strengthening of cross-border livestock marketing cooperatives
- Implement a joint livestock identification and traceability system
- Develop and facilitate the implementation of livestock insurance schemes

6.3.3 Rationale for sector prioritization

01

Addresses core livelihood and food security needs: Livestock is the primary source of income and food security for the majority of the population in both Karamoja and West Pokot. Investing in this sector directly tackles widespread poverty, enhances resilience to climate shocks (droughts), and improves nutritional outcomes, fulfilling a fundamental development need across the borderland.

02

Mitigates shared climate vulnerabilities: Both regions face increasingly frequent and severe droughts, impacting livestock productivity and threatening pastoral livelihoods. Prioritizing investments in climate-smart livestock practices (drought-resistant breeds, water harvesting, sustainable rangeland management) directly addresses this shared vulnerability and builds long-term resilience, aligning with both regions' development plans.

03

Capitalizes on existing regional economic importance: Livestock production already holds substantial economic significance in both Karamoja and West Pokot, with significant livestock populations and established, albeit informal, trade networks. Investing in value addition (processing, marketing) leverages this existing foundation, creating higher returns and formalizing a crucial sector, in line with stated policy goals.

04

Promotes cross-border cooperation and stability: Shared challenges like livestock diseases, cross-border movement, and resource competition necessitate collaborative solutions. Investing in joint infrastructure (markets, disease surveillance) and harmonized policies fosters cooperation, reduces conflict potential, and strengthens regional integration, directly addressing cross-border priorities.

05

Leverages strong policy alignment and local ownership: Both the West Pokot CIDP and the Karamoja KIDP3 explicitly prioritize livestock development, including breed improvement, disease control, market access, and value addition. Investing in this sector directly supports these pre-existing policy commitments, ensuring strong local buy-in and increasing the likelihood of project sustainability and success.

6.3.4 Cross-border IOA and EIOA close-ups

Cross-border IOA 3

Animal feed production and distribution

Livestock across the borderland face persistent feed shortages, undermining productivity and driving resource-based conflict. Animal feed production and distribution offers a strategic investment opportunity in this context, where drought, land degradation, and seasonal pasture scarcity are intensifying under climate change. Investing in locally adapted feed solutions such as drought-tolerant fodder crops, feed blocks, and processed supplements, can significantly improve livestock health, reduce conflict risks, and support climate resilience. The opportunity aligns with both Uganda's and Kenya's policy priorities around livestock commercialization, feedlot development, and rangeland management. Given the shared ecosystem and livestock mobility across the border, cross-border coordination in feed production, storage, and distribution can stabilize supply chains and strengthen regional food systems. This opportunity holds high potential to increase pastoralist incomes, reduce vulnerability, and enhance peace through resource-based cooperation.

Business model	Establish local feed production units utilizing drought-resistant crops and agricultural byproducts. Process and package feed for various livestock (cattle, goats, sheep, poultry, camels). Distribute feed through a network of agro-dealers, cooperatives, and direct sales to pastoralists. Target livestock keepers, dairy farmers, and poultry producers in Karamoja and West Pokot. Finance operations through blended capital: anchor investor equity, concessional loans, and government or donor-backed grants for climate-resilient inputs and equipment.
Beneficiaries	The investment will benefit pastoralist and agro-pastoralist households by improving year-round access to quality livestock feed. It will also support cooperatives, feed distributors, and youth-led enterprises engaged in production, processing, and delivery.
Economic factors	The borderland hosts over 5 to 8 million livestock, generating strong year-round demand for feed, particularly during dry seasons. Small-scale feed producers in similar dryland contexts can yield 25–45% profit margins, with ROI expected within 2–4 years. Ticket sizes range from $150,000 for decentralized processing units to $800,000 for integrated production and distribution systems. Market growth is driven by expanding feedlot and dairy sectors.[71]
Enabling factors	Large livestock populations and recurring pasture shortages create sustained demand for feed. Government strategies in both countries prioritize feed production and rangeland management. Existing cooperatives and agro-pastoral groups offer entry points for contract farming. Improved road networks and growing dairy and meat sectors strengthen distribution channels and market uptake.
Risk factors	Climate variability can affect fodder crop yields and raw material supply. Limited access to water and land may constrain production. High transportation costs and poor infrastructure increase operational expenses. Price sensitivity among pastoralists and informal trade dynamics may impact consistent demand and profitability without strong aggregation or market guarantees.
Development Outcome	This opportunity will improve livestock productivity, stabilize incomes for pastoralists, and reduce conflict over grazing resources. It will create local jobs in production, processing, and distribution. Women and youth will benefit through inclusive contract farming and cooperative models, enhancing their participation in the livestock economy and boosting resilience in marginal areas.
Cases in IOA space	In Kenya, Agriterra supports farmer cooperatives to produce and distribute animal feed through contract farming and small-scale processing units. In Uganda, SNV and IFAD-backed projects have piloted community fodder banks and hay production groups, linking pastoralists to feedlots and dairy hubs during dry seasons. Larger-scale feed manufacturers like Unga Group (Kenya) and Biyinzika Poultry (Uganda) produce commercial feeds, but their reach into the borderland is likely limited.[72]

[71]Estimations based on interviews with district officials, livestock associations, livestock census data, and regional studies.
[72]Agriterra. (2024). Farmers Care Cooperative Society in Kenya – A success story. LinkedIn. https://www.linkedin.com/posts/agriterra_farmers-care-cooperative-society-in-kenya-activity-7272898878675283968--_Rc; International Fund for Agricultural Development (IFAD). (2024). Project Design Report: Resilient Livestock Value Chaine Project. https://webapps.ifad.org/members/eb-seminars/2024-09-11-12-EB-consultation/docs/EB-2024-142-R-8-Project-Design-Report.pdf; Unga Group Plc. (n.d.). About Us – Unga Group. https://unga-group.com/about-us/; Biyinzika Poultry International Limited (BPIL). https://www.biyinzika.co.ug/

Cross-border IOA 4

Livestock processing and value addition

Most livestock in the borderland are traded live and transported long distances for slaughter, resulting in lost value, high transit costs, and missed local economic benefits. Livestock processing and value addition presents a transformative investment opportunity in a region where pastoralism and agro-pastoralism are central to livelihoods. Investing in modern abattoirs and feedlots would retain value within the region, improve meat quality and safety, and create jobs along the processing and distribution chain. This opportunity closely aligns with government strategies on both sides of the border that promote agro-industrialization, livestock marketing, and regional integration. With frequent cross-border livestock flows and shared markets, collaborative investment in processing infrastructure could drive inclusive growth, strengthen trade links, and reduce tensions linked to resource competition.

Business model	Establish and operate cross-border meat processing hubs with integrated abattoirs, feedlots, and cold chain logistics. Source livestock from pastoralist cooperatives across Karamoja and West Pokot. Process and package meat products (chilled, frozen, potentially value-added) targeting local, regional (urban centers), and potentially export markets. Leverage a blended financing model combining county and district government contributions, concessional loans, and private equity. Partner with livestock cooperatives to ensure supply consistency and community participation.
Beneficiaries	The investment will benefit pastoralist producers, livestock traders, and workers engaged in slaughtering, transport, and meat handling. It will also support cooperatives and small businesses involved in aggregation, logistics, and meat distribution across the border.
Economic factors	Substantial regional livestock populations (5 to 8 million heads) and existing cross-border trade indicate a large potential market. The regional livestock offtake exceeds $175 million annually, with most value lost through raw exports. Local processing can boost margins, with projected ROI of 20–30% over 3–5 years. Ticket sizes range from $300,000 for small-scale facilities or upgrading existing facilities to over $1 million for integrated hubs. Revenue can begin within the first year, with full returns expected by year three.[73]
Enabling factors	Strong policy alignment in both Uganda and Kenya supports livestock commercialization and agro-industrialization. Recent investments in infrastructure, such as abattoirs and feeder roads, provide a foundation for scaling. Cross-border livestock trade is well established, and producer cooperatives offer ready aggregation points for sourcing and partnership.
Risk factors	Insecurity (cattle raiding, banditry) could disrupt livestock supply and transport. Climate change (drought) impacts pasture availability and animal health. Unreliable electricity and water supply threaten processing operations. Fluctuating livestock prices and market access challenges, particularly for cross-border trade, pose financial risks. Disease outbreaks could lead to significant livestock losses.
Development Outcome	This investment will increase incomes for livestock keepers and traders, while also creating jobs in processing, transport, and related services. Food security will improve through greater availability of processed meat products. It will promote inclusive participation by engaging women and youth in processing and support services, enhancing livelihoods for marginalized groups in the borderland. Reduced post-harvest losses and strengthened cross-border trade will contribute to overall economic growth.
Cases in IOA space	In West Pokot, the Nasukuta abattoir was built with county and EU support to process up to 200 cattle and 800 goats daily, though it remains underutilized. The Moroto Abattoir serves local markets but lacks cold storage and modern infrastructure, highlighting both precedent and room for scale. Somali traders transport refrigerated meat to Kampala, demonstrating a higher-value model.[74]

[73] Estimations based on interview data with district officials, livestock market associations, livestock census data, and regional studies.
[74] Ministry for Karamoja Affairs & Office of the Prime Minister. (2021). The Third Karamoja Integrated Development Plan (KIDP 3) 2021–2025.; County Government of West Pokot. (2023). Third County Integrated Development Plan (CIDP) 2023–2027.; Interview with public district officers in Moroto and West Pokot; Interview with the Moroto Livestock Market Committee.; Interview with the Moroto Livestock Traders and Butchery Association.; Interviews with private financial institutions in West Pokot and Karamoja.

Cross-border IOA 5

Dairy production, aggregation and processing

Much of the milk produced in the borderland is either consumed unprocessed or lost due to poor storage and limited processing capacity. Dairy production, aggregation, and processing is a high-potential investment opportunity in a region where livestock underpins both livelihoods and nutrition. Investments in milk collection centers, cold chain logistics, and processing facilities can unlock significant value while improving food security, household incomes, and climate resilience. This opportunity directly aligns with regional development priorities around livestock commercialization, inclusive agro-industrialization, and value chain development. In West Pokot, successful cooperatives like Lelan and Sioyi offer proven models, while Karamoja holds untapped supply potential and growing market connectivity. With active cross-border milk trade and livestock movement, there is a clear case for shared infrastructure and coordinated investment, making dairy a strong candidate for cross-border economic integration.

Business model	Establish a network of milk collection and chilling centers across the borderland, linked to a central processing facility. Train farmers in improved dairy practices and hygiene. Process milk into pasteurized milk, yogurt, and potentially other value-added products. Target local markets, schools, institutions, and regional urban centers. Secure financing through a blend of impact investment, concessional loans for cooperatives/farmers, and development grants (for training and infrastructure).
Beneficiaries	The investment will benefit smallholder dairy farmers, milk cooperatives, and workers involved in collection, processing, and distribution. It will also empower women and youth, who are often engaged in milk handling and cooperative management.
Economic factors	Significant unmet local and regional demand for dairy products exists, particularly for processed milk. Current low production levels (e.g., Lelan Cooperative operates at a fraction of capacity) indicate substantial growth potential. Return on investment is driven by value addition and increased market access, potentially reaching 15-35% given regional benchmarks – milk processed into buttermilk and clarified butter is valued at more than three times the price of whole milk. Investment ticket sizes range from medium ($100,000 - 500,000) for collection centers, cooling equipment) to large (1 million+, for a processing plant). Investment timeframe is medium-term, with profitability projected within 3-5 years.[75]
Enabling factors	Strong existing cooperative networks provide organized supply channels. Government strategies in both Uganda and Kenya prioritize dairy value addition. Infrastructure upgrades and improved cross-border roads enhance market access. Development partners are actively supporting dairy through grants, training, and equipment financing, creating momentum for scale-up.
Risk factors	Limited cold chain infrastructure and unreliable electricity can disrupt milk preservation and processing. Seasonal fluctuations in milk supply affect consistency. Weak access to finance may limit farmer participation. Cross-border regulatory differences and informal trade routes can create compliance challenges. Insecurity in remote areas may hinder milk collection and transport.
Development Outcome	The opportunity will boost household incomes for dairy farmers, reduce milk spoilage, and improve regional food security through local value addition. It will create jobs in aggregation, processing, and distribution. Women and youth (who play key roles in milk handling) will gain greater economic inclusion through cooperative participation and targeted capacity building. Strengthening cross-border dairy trade and shared infrastructure will foster intercommunal collaboration, supporting peacebuilding and regional stability.
Cases in IOA space	Lelan Dairy Cooperative in West Pokot collects over 3.9 million liters annually and has invested in pasteurization and cooling infrastructure with support from the EU and USAID. In Uganda, SNV and Heifer International have supported dairy hubs in northern Uganda, combining chilling centers, transport, and farmer training to strengthen value chains.[76]

[75]Estimations based on interview data with district officials, livestock market associations, livestock census data, and regional studies.
[76]Paul Mueller Company. (n.d.). Making an Impact with Milk in Africa. Retrieved from: https://www.paulmueller.com/case-studies/dairy-farm/making-an-impact-with-milk-in-africa; Heifer International. (n.d.). Our Work in Kenya. Retrieved from: https://www.heifer.org/our-work/where-we-work/kenya.html; Interviews with milk cooperatives in West Pokot

Cross-border IOA 6

Veterinary services and breed improvement

Livestock in the borderland suffer from high disease burdens and low productivity, limiting incomes and resilience for pastoralist communities. Veterinary services and breed improvement present a high-impact investment opportunity in a region where livestock underpins rural economies. Inadequate veterinary coverage, limited access to medicines, and a shortage of trained personnel contribute to frequent disease outbreaks and high mortality rates. Simultaneously, dependence on low-yield indigenous breeds constrains production potential. Investing in community-based animal health delivery, mobile vet clinics, and improved breeding services, such as artificial insemination and strategic crossbreeding, can significantly boost herd health, productivity, and market value. Uganda and Kenya both prioritize livestock health and genetic improvement in national strategies. Given the cross-border movement of animals and shared grazing ecosystems, coordinated investments are essential for disease control, sustainable growth, and stability across the livestock sector.

Business model	Establish a network of private and/or cooperative veterinary clinics and mobile veterinary services linked to community animal health workers (CAHW), potentially leveraging existing agro-vet shops. Deliver vaccinations, treatments, artificial insemination services, and animal health advisory through a fee-for-service model. Target pastoralists, agro-pastoralists, and emerging commercial livestock farmers across the borderland. Finance operations through blended capital: grants for capacity building, public subsidies for inputs, private investment in service delivery infrastructure.
Beneficiaries	The investment will benefit pastoralist households by reducing livestock losses and improving herd productivity. It will also support community animal health workers, veterinary entrepreneurs, and livestock cooperatives engaged in breeding and animal health services.
Economic factors	With over 5 to 8 million livestock in the borderland, high disease prevalence and demand for improved breeds, the veterinary and breeding services market is substantial and underserved. Private service providers can achieve ROI of 30–40% within 2–3 years through fee-based care and input sales. Ticket sizes range from $50,000 for mobile clinics or equipping CAHW to $500,000 for regional service hubs and breeding centers.[77]
Enabling factors	High livestock density and frequent disease outbreaks create strong demand for veterinary services. Government policies in both countries promote breed improvement and community-based animal health systems. Existing cooperative networks, CAHW models, and cross-border livestock movement offer ready platforms for delivery. Development partners are actively supporting animal health and genetic upgrading.
Risk factors	Weak regulatory enforcement may allow counterfeit drugs to circulate, undermining trust in services. Limited cold chain infrastructure can compromise vaccine quality. Cultural resistance to artificial insemination and low awareness of breed improvement may slow uptake. Cross-border livestock movement poses disease control challenges without coordinated surveillance and response mechanisms.
Development Outcome	Veterinary services will reduce livestock mortality, increase herd productivity, and boost incomes for pastoralist households. They will strengthen regional disease control and support climate resilience through healthier, more productive breeds. Women and youth will benefit from training and employment as CAHW and service agents in underserved areas.
Cases in IOA space	While specific examples within the borderland are scarce, models exist. Agro-vet shops sell some veterinary drugs, representing a basic private sector model. In Karamoja, CAHWs operated in every sub-county, although they are unpaid and lack basic supplies. A USAID-funded program introduced a “super-agent” agrovet model to improve access to veterinary drugs and services in Karamoja which led to lower transport price and improved last-mile delivery. Initiatives targeting artificial insemination, hybrid goats, exotic poultry, and camel breeding have also been implemented by local government with donor funding.[78]

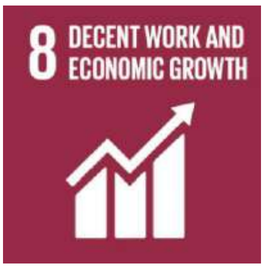
[77] Estimations based on interview data with district veterinary officers, livestock market associations, agrovets, livestock census data, and regional studies.
[78] Interview with Moroto district veterinary officer; Interviews with agrovets in West Pokot and Karamoja; Interview with an agribusiness consultant for a large international organisation;

Emerging IOA 2

Hides and skins aggregation and processing

Business white space

Most hides and skins in the borderland are either discarded or sold at very low value due to poor handling and lack of processing infrastructure. Hides and skins aggregation and processing represents an emerging, untapped investment opportunity that can unlock value within the livestock sector. This opportunity aims to transform an underutilized by-product into a viable source of income and employment. Despite being referenced in regional development plans, there has been little actual investment or progress toward formalizing this value chain. It remains a clear business white space, marked by strong potential but no scalable model. Establishing collection networks, improving preservation techniques, and exploring small-scale processing (e.g., tanning) can increase product value and create jobs. Given the cross-border nature of livestock trade, centralized processing infrastructure could serve both Karamoja and West Pokot, enhancing regional integration and economic diversification.



Business model	Establish hides and skins aggregation centres near major livestock markets and slaughter points. Train traders and processors in preservation techniques to improve quality. Supply semi-processed hides to regional tanneries and leather goods producers in Kenya and Uganda. Start with donor-backed grants or concessional capital, then transition to private financing as volumes grow. Engage cooperatives and women's groups to manage collection and sorting.
Beneficiaries	The investment will benefit pastoralist households by creating additional income from livestock by-products. It will also support women traders, youth groups, and cooperatives engaged in collection, preservation, and marketing of hides and skins.
Economic factors	The borderland processes thousands of animals weekly, generating a steady supply of hides and skins currently undervalued or wasted. Current low prices indicate substantial room for value increase through improved handling and processing. Regional demand for semi-processed hides is strong, with potential ROI of 20–30% within 3–5 years as quality improves. Ticket sizes range from $50,000 for basic aggregation to $300,000 for small-scale processing units.[79]
Enabling factors	Large volumes of livestock slaughter across the borderland generate consistent supply of hides and skins. Growing regional demand for leather goods creates downstream market potential. Existing pastoralist networks and cooperatives offer collection entry points. Improved roads and trade routes enhance connectivity to tanneries in Kenya and processing hubs in Uganda.
Risk factors	Poor preservation practices and lack of storage often lead to spoilage and low-quality hides. Limited technical skills and weak aggregation systems hinder consistency. Market linkages to tanneries remain underdeveloped, and fluctuating prices reduce investment incentives. Cultural attitudes toward hides as waste may slow adoption without strong awareness efforts.
Development Outcome	This opportunity will reduce waste in the livestock sector and create new income streams from by-products. It will generate jobs in collection, preservation, and trade, especially for women and youth who are active in local markets. Strengthening this value chain will promote inclusive economic participation and rural enterprise development.
Existing barriers / gaps	The absence of viable business models, limited awareness of market potential, and weak linkages to tanneries prevent private sector interest. Poor preservation practices and lack of basic infrastructure result in low-quality hides, undermining profitability. Without aggregation systems or off-take agreements, the sector remains too fragmented to attract investment.
Policy recommendations	Support cooperative-led aggregation models and invest in training on hide preservation and quality standards. Provide access to finance for emerging businesses in this value chain. Strengthen cross-border coordination on quality grading, export regulation, and logistics to harmonize standards and unlock regional trade in hides and skins.

[79]Estimations based on interview data with district district officials, livestock market associations, slaughterhouse managers, livestock census data, and regional studies.

6.4 Financial services

6.4.1 Cross-border needs

The majority of small-scale traders, farmers, and business owners in both regions operate outside the formal banking system. National data show that only 58% of Ugandans[80] and 83% of Kenyans[81] have access to formal financial services, but rates are much lower in marginalized regions. In West Pokot, only 5.4% of farmers have access to formal finance for agriculture, as many small traders, farmers, and youth operate entirely outside the banking system.[82] Instead, they rely on informal savings mechanisms (like keeping cash at home, as seen with youth in Karamoja) or high-cost local lenders. This lack of financial inclusion makes it extremely difficult for businesses to secure the capital needed for expansion, technology adoption, or accessing larger markets.

The demand for financial services in the borderland is substantial, but numerous barriers on both the demand and supply sides prevent access for many potential clients. On the demand side, high levels of illiteracy, the long distances to reach financial institutions, a lack of awareness about available financial products, and stringent requirements (like collateral) act as significant deterrents.[83] On the supply side, formal banks and microfinance institutions (MFIs) often offer loans with prohibitively high interest rates, demand high collateral (sometimes 100% of the loan value), and have long processing delays.[84] These conditions make formal financial products inaccessible or unsuitable for the majority of small businesses and farmers.

Savings and Credit Cooperative Organizations (SACCOs) play a vital role in providing financial services in the region, but their capacity is insufficient to meet the existing demand, requiring substantial strengthening and scaling up. SACCOs like Eco-pillar, WEPESA[85], Katay, and Lelan cooperative in West Pokot offer a more accessible and affordable alternative to banks and MFIs. They provide crucial capital for farmers and small businesses to purchase inputs and equipment. However, these SACCOs are often under-capitalized and struggle to meet the overwhelming demand for credit and savings services. Further capital infusion and capacity building are essential to expand their reach and impact.[86]

Addressing the financial services gap requires a multi-pronged approach that tackles both supply-side and demand-side constraints, promoting financial literacy and inclusion. This includes expanding financial literacy programs to educate potential clients about available products and services, and their benefits. It also requires increasing access to affordable credit through mechanisms like loan guarantees, interest rate subsidies, and support for mobile banking and digital financial services to overcome geographical barriers. Strengthening the capacity of SACCOs and MFIs through technical assistance and financial support is also crucial. Finally, creating a more enabling regulatory environment that encourages responsible lending and protects borrowers is necessary for long-term, sustainable financial sector development.

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[80] World Bank. (2018). The Global Findex Database 2017. Washington, DC.

[81] Central Bank of Kenya (CBK), Kenya National Bureau of Statistics (KNBS), and FSD Kenya. (2021). 2021 FinAccess Household Survey. Nairobi.

[82] CBK, KNBS, & FSD Kenya. (2022). FinAccess Household Survey: County Perspective. Nairobi. Retrieved from: https://www.fsdkenya.org/wp-content/uploads/2022/11/FinAccess-Household-Survey-County-perspective-November-2022-2.pdf; Interview with a poultry cooperative in Kapenguria

[83] Ibid.

[84] Interviews with commercial banks in Moroto (P_49, P_50, P_55)

[85] Interviews with private companies (P_31) and investment funds (P_40) operating in the renewable energy sector

[86] Interviews with Impact foundation supporting entrepreneurs (P_08) and the Manager of Moroto's livestock market SACCO (P_72)

6.4.2 Cross-border policy priorities

Both West Pokot and Karamoja have identified enhancing access to financial services as a crucial component of their broader economic development strategies, as reflected in their respective development plans (CIDP and KIDP3). While the specific approaches vary, there is a clear shared emphasis on supporting entrepreneurship, strengthening cooperatives, and improving financial inclusion, particularly for small businesses and farmers.

- **West Pokot's CIDP** supports the provision of affordable credit to small businesses, traders, and cooperatives through initiatives like the Biashara Mashinani Fund and the County Cooperative Development Fund. A significant focus is placed on revitalizing and expanding cooperative societies, recognizing their role in providing financial services to their members. Capacity-building programs for businesses and support for trade fairs are also included, aiming to improve access to both finance and markets.
- **Karamoja's KIDP3** emphasizes improving financial literacy and inclusion through community sensitization, training on savings and credit access, and supporting Village Savings and Lending Associations (VSLAs). A key priority is linking smallholder farmers to financial service providers, enhancing microfinance support for agriculture, and improving access to credit and insurance products. The plan also highlights the importance of strengthening SACCOs and livestock breeders' cooperatives to ensure financial inclusion and support sustainable business growth. Business skill development for youth and women, a critical area of the plan, will indirectly support the uptake of financial services.

Overlapping cross-border priorities:

- Strengthen cooperative societies and SACCOs in both regions
- Expand financial literacy programs and training initiatives (targeting communities in both Karamoja and West Pokot)
- Facilitate access to credit and insurance products specifically tailored for smallholder farmers and livestock keepers across the borderland.
- Develop joint programs aimed at providing business skill training and mentoring (focusing on youth and women)
- Promote the use of Village Savings and Lending Associations (VSLAs) and other community-based savings mechanisms.
- Support access to credit for Micro, Small and Medium Enterprises (MSMEs) through initiatives such as funds, and partnerships with the private sector.

6.4.3 Rationale for sector prioritization

01

Addresses a fundamental constraint to economic growth: Lack of access to finance is a major barrier to entrepreneurship, business expansion, and agricultural productivity in both Karamoja and West Pokot. Investing in financial services directly tackles this constraint, unlocking economic potential and creating opportunities for income generation and job creation.

02

Empowers small businesses and farmers: The majority of the economic activity in the borderland relies on small-scale businesses and farming. Providing access to affordable credit, savings, and insurance empowers these individuals and enterprises to invest, grow, and become more resilient to shocks, directly supporting livelihoods.

03

Promotes financial inclusion and reduces inequality: Many communities, particularly in rural areas, are excluded from the formal financial system. Prioritizing financial services, especially through community-based mechanisms like SACCOs and VSLAs, promotes financial inclusion, reduces inequality, and ensures that the benefits of economic growth are more widely shared.

04

Aligns with explicit policy priorities in both regions: Both the West Pokot CIDP and the Karamoja KIDP3 explicitly prioritize improving access to financial services, strengthening cooperatives, and promoting financial literacy. Investing in this sector directly supports these stated policy goals, ensuring strong local ownership and increasing the likelihood of success.

05

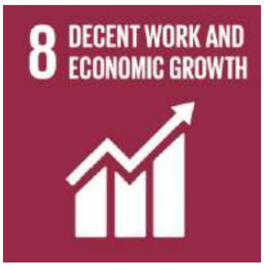
Catalyzes investment in other priority sectors: Access to finance is a cross-cutting need, essential for growth in other priority sectors like agriculture, livestock, and renewable energy. By strengthening financial services, investments in these other areas become more viable and sustainable, creating a multiplier effect across the borderland economy.

6.4.4 Cross-border IOA and EIOA close-ups

Cross-border IOA 7

Financial services for small traders and cooperatives

Small traders and cooperatives in the borderland struggle to grow due to limited access to affordable credit. Financial services for these groups present a high-impact investment opportunity in Karamoja and West Pokot, where vibrant local trade and cross-border commerce are held back by informal operations and reliance on personal savings or costly moneylenders. Cooperatives often lack the working capital needed to aggregate, store, or transport goods effectively. This opportunity aligns with policy priorities on financial inclusion, cooperative development, and trade facilitation. With rising demand for mobile money, SACCOs, and tailored lending products, particularly among women and youth-led enterprises, there is strong potential for scalable, tech-enabled financial solutions. Expanding access to flexible credit across the border will unlock enterprise growth, strengthen cross-border trade, and foster more resilient local economies.

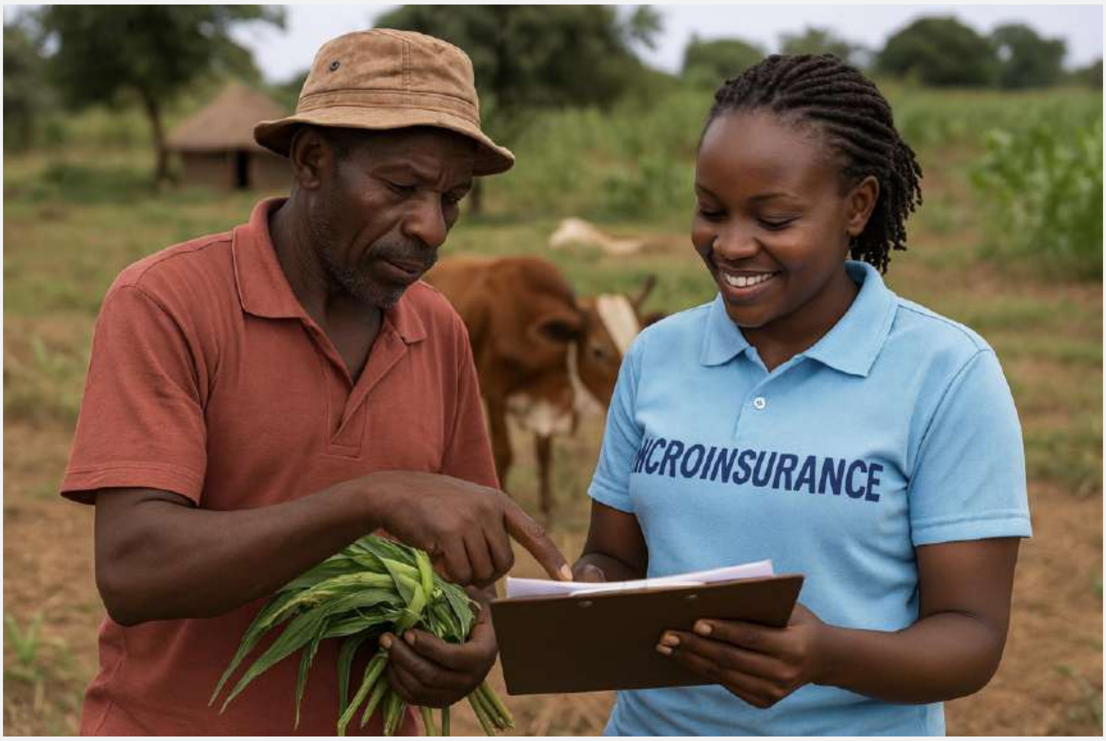


Business model	Deploy agent-based and mobile banking solutions tailored to informal traders and cooperatives. Partner with SACCOs and fintech providers to offer flexible credit, working capital loans, and savings products. Target cross-border traders, market vendors, and aggregation cooperatives. Blend commercial capital with concessional financing and guarantee schemes to de-risk lending and expand outreach.
Beneficiaries	The investment will benefit small-scale traders, cooperative members, and informal business owners by expanding access to affordable credit and financial services. Women and youth, who are heavily represented in local markets and cross-border trade, will gain greater financial inclusion and business stability.
Economic factors	The borderland hosts thousands of informal traders and over 100 active cooperatives, representing a strong untapped market for tailored financial services. Agent-based and mobile banking models offer 20–35% ROI due to low operating costs, high repayment rates, and strong demand for flexible credit. Benchmarks from regional fintechs show 25–40% ROI at scale. Returns can materialize within 2–3 years, with Year 1 focused on setup, Year 2 on scaling, and breakeven expected by Year 3. Ticket sizes range from $100,000 for pilot fintech deployments to $500,000 for full-scale agent networks and SACCO partnerships.[87]
Enabling factors	Widespread mobile phone use and growing adoption of mobile money create a strong foundation for digital finance. Active SACCOs and village savings groups offer ready entry points. Government policies in both countries promote financial inclusion and cooperative strengthening. Cross-border trade activity drives demand for accessible, short-term working capital solutions.
Risk factors	Low financial literacy and limited trust in formal institutions may hinder uptake. Poor connectivity in remote areas can disrupt mobile transactions. Informality and lack of documentation among traders pose challenges for credit assessment. Currency mismatches and regulatory differences complicate cross-border financial service delivery.
Development Outcome	This opportunity will expand access to credit and savings for small traders and cooperatives, enabling business growth and greater resilience to economic shocks. It will enhance financial inclusion for women and youth, who are often excluded from formal banking. Strengthening local economies will also reduce reliance on exploitative lending and informal credit systems.
Cases in IOA space	Commercial banks (e.g., Centenary, Equity, KCB, Stanbic) have a limited presence, primarily in larger towns. SACCOs (e.g., WEPESA, Eco-Pillar) provide localized financial services, but have limited reach. MFIs (e.g., BRAC, 4G Capital, MSC) operate, but often with high interest rates. Mobile money services (e.g., M-Pesa) are increasingly used, but agent liquidity is a constraint. FSD Uganda supports agent banking and digital credit models that expand access to financial services for rural traders and savings groups. In Kenya, fintech firms like Tala and Musoni provide mobile loans to informal businesses.[88]

[87]Estimations based on interview data with district officers, commercial banks, microfinance institutions, SACCOs, and regional studies.

[88]Interview with Foundation supporting access to finance for entrepreneurs in West Pokot; Interviews with microfinance institutions in Karamoja and West Pokot; Interviews with SACCO managers in Moroto; Interview with milk cooperatives in West Pokot

Emerging IOA 3



Micro-insurance for farmers and livestock

Policy and Business white space

Frequent droughts, livestock diseases, and crop failures expose communities of the borderland to substantial economic risks, often wiping out livelihoods and perpetuating cycles of poverty. Despite high vulnerability, most farmers and pastoralists lack any form of risk protection, relying instead on informal coping mechanisms that perpetuate poverty and instability. In this context, micro-insurance schemes address a clear development need, yet uptake remains minimal due to limited policy traction, low awareness, and an absence of viable, localized business models. Index-based and community-based insurance schemes have shown promise elsewhere in East Africa but have yet to gain a foothold in this region. Cross-border livestock movement and shared climatic risks further justify regional approaches to micro-insurance design and delivery. Advancing this opportunity will require coordinated public and private sector efforts to adapt products to pastoralist systems, build trust, and create incentives for adoption. With the right push, micro-insurance can unlock resilience at scale.

Business model	Develop and offer index-based and/or traditional micro-insurance products covering livestock mortality, crop failure, and potentially other relevant risks. Partner with local SACCOs, MFIs, and community groups for distribution and premium collection. Target smallholder farmers, pastoralists, and agro-pastoralists across the borderland. Secure initial funding through development grants and impact investment, transitioning to a premium-based, commercially sustainable model.
Beneficiaries	The investment will benefit pastoralist and smallholder farming households by reducing financial losses from drought, animal disease, and crop failure. It will also support cooperatives and local distributors who act as insurance aggregators and service points.
Economic factors	The borderland's high-risk profile, with 80% of households engaged in livelihoods directly vulnerable to climate and disease risks, represents a sizeable untapped market. The presence of informal savings mechanisms signals strong potential for uptake of tailored, more structured insurance products. Pilot schemes in similar contexts show ROI of 15–25% within 3–5 years as coverage scales. Ticket sizes range from $100,000 for early-stage pilots to $500,000 for bundled, tech-enabled regional rollouts.[89]
Enabling factors	High exposure to climate and livestock-related shocks creates strong demand for risk mitigation. Mobile phone penetration and growing use of mobile money enable digital delivery and payouts. Existing cooperatives and SACCOs provide distribution channels. Regional experience with index-based insurance offers technical foundations to adapt models to cross-border pastoralist systems.
Risk factors	Low awareness and trust in insurance can limit uptake, especially in communities with limited experience of formal risk tools. Irregular incomes and high poverty levels may constrain willingness to pay. Weak regulatory frameworks and lack of local actuarial data make product design and cross-border coordination more complex.
Development Outcome	Micro-insurance products will enhance the financial resilience of pastoralist and farming households, reducing reliance on distress sales and aid during shocks. They will protect livelihoods, stabilize incomes, and support recovery. Women can benefit from targeted products that reduce their vulnerability and promote inclusive risk protection.
Existing barriers / gaps	Lack of policy frameworks and public incentives limits market entry for insurers. Absence of viable business models tailored to pastoralist systems hinders scale. Low data availability, limited awareness, and weak cross-border coordination further constrain product design, pricing accuracy, and trust-building, keeping the opportunity in a high-risk, low-investment zone.

[89]Estimations based on interview data with district officials, commercial banks, microfinance institutions, livestock market associations, farmers cooperatives, and regional studies.

Policy recommendations	Subsidize premiums and offer risk-sharing mechanisms to attract private insurers. Develop regulatory frameworks for index-based and livestock insurance tailored to informal rural markets. Invest in data systems to improve pricing and targeting. Promote cross-border coordination on livestock movement, climate risk mapping, and harmonized insurance standards.

6.5 Renewable energy

6.5.1 Cross-border needs

Limited access to reliable and sustainable energy sources represents a significant development constraint across the borderland, hindering economic growth, social progress, and environmental sustainability. The majority of households and businesses in both regions rely on traditional biomass fuels (firewood, charcoal) for cooking and lighting, due to the extremely limited reach of the national electricity grids. National electrification rates indicate that 42.5% of Ugandan households were connected to the grid in 2022[90] and 75% of Kenyan households in 2023,[91] although rates are likely much lower in rural areas (some reports indicate that only 1% of households are connected to the grid in Karamoja).[92] This heavy reliance on biomass contributes to deforestation, land degradation, and indoor air pollution, with negative consequences for health and the environment.

The high dependence on traditional biomass fuels, coupled with unreliable grid electricity where available, creates a critical need for diversified and decentralized renewable energy solutions. Even in areas with some grid access, frequent power outages severely disrupt economic activities. For example, businesses, including dairy cooperatives in West Pokot, report outages averaging six times per week, lasting an hour each, forcing reliance on expensive and polluting diesel generators (adding 300 USD in monthly operating costs for some).[93] This demonstrates the need not only for access to electricity but also for reliability, a need that renewable energy sources, particularly solar, can address.

The abundant solar resource potential of the borderland offers an opportunity to address energy needs, but substantial investment and supportive policies are required to overcome existing barriers. The region receives high levels of solar irradiation throughout the year, making solar photovoltaic (PV) systems a highly viable option for both household and productive uses. However, the high upfront costs of solar home systems, limited access to financing, and a lack of awareness about the benefits of solar energy hinder widespread adoption. While companies like SolarGen and Zeronet are operating in the region, their reach is still limited compared to the scale of the need.[94]

Expanding the use of renewable energy beyond household lighting to encompass productive uses (agriculture, small businesses) and essential services (healthcare, education) is crucial for sustainable development in the borderland, requiring targeted interventions. Renewable energy can power irrigation pumps, agro-processing equipment, refrigeration for vaccines and medicines, and lighting for schools and health centers. This requires not only investment in larger-scale

[90]International Energy Agency. Uganda. https://www.iea.org/countries/uganda

[91]Statista. Kenya. https://www.statista.com/statistics/1222495/electrification-rate-in-kenya/

[92]Tonny Odokonyero and Francis Mwesigye. "Targeting and Subsidizing Electricity Connection: The case of a Hybrid Financing Framework in Uganda", UDB, Policy Briefing Note No. 2023/001, (April 2023): https://udbl.co.ug/UDB%20Electricity%20Connection%20Intervention%20Policy%202.pdf.

[93]Interviews with milk cooperatives in West Pokot (P_27, P_37)

[94]Interviews with renewable energy companies in West Pokot and Karamoja (P_31)

renewable energy infrastructure (mini-grids, solar farms) but also in training local technicians to install, maintain, and repair these systems. Therefore, supportive policies that encourage private sector investment and provide incentives for renewable energy adoption are essential to bridging the energy gap and fostering sustainable development.

6.5.2 Cross-border policy priorities

Both West Pokot and Karamoja have outlined policy priorities within their respective development plans (CIDP and KIDP3) that aim to significantly expand access to renewable energy and promote its sustainable use. While the specific approaches vary, there are clear areas of convergence, highlighting opportunities for coordinated cross-border initiatives:

- **West Pokot's CIDP** priorities focus on expanding access to clean and renewable energy technologies, supported by a County Energy Centre. A key element is the development and implementation of county-level energy policies and regulations to guide sustainable energy development. The plan also emphasizes promoting alternative energy sources through awareness campaigns and empowering local "energy champions." The adoption of clean cooking technologies is also mentioned, through the distribution of improved cookstoves to reduce reliance on biomass.
- **Karamoja's KIDP3** priorities center on expanding electricity access, particularly in rural areas and public institutions (schools, health centers). This includes significant investment in renewable energy infrastructure, such as a solar-powered station feeding into the national grid, mini solar-powered water systems, and repairing existing solar installations. Similar to West Pokot, Karamoja also prioritizes promoting clean cooking technologies, including energy-efficient cookstoves and supporting local artisans in their production. The plan further encourages the development of alternative energy sources, such as biogas and biomass briquettes.

Overlapping cross-border priorities:

- Promote the adoption of clean cooking technologies across both regions
- Expand access to solar energy solutions for households and institutions
- Develop and harmonize county / regional-level energy policies and regulatory frameworks
- Establish joint training programs and knowledge-sharing initiatives in renewable energy technologies
- Conduct joint awareness campaigns
- Facilitate cross-border technology transfer and innovation in the renewable energy sector
- Invest in the development of renewable energy resources
- Build institutional capacities to provide clean and affordable energy to the public and for productive uses.

6.5.3 Rationale for sector prioritization

01

Addresses critical energy access deficit: Both Karamoja and West Pokot face significant challenges in accessing reliable and affordable electricity, hindering economic development and social well-being. Investing in renewable energy, particularly off-grid solutions, directly addresses this fundamental need, improving quality of life and enabling productive activities.

02

Combats environmental degradation and promotes sustainability: The heavy reliance on traditional biomass fuels (firewood, charcoal) contributes to deforestation and indoor air pollution. Renewable energy offers a cleaner, more sustainable alternative, mitigating these environmental impacts and aligning with global climate goals, a shared concern reflected in both regions' development aspirations.

03

Supports economic empowerment and livelihood diversification: Renewable energy creates opportunities for local businesses (installation, maintenance, sales) and empowers communities through access to electricity for productive uses (e.g., powering small businesses, irrigation). This fosters economic growth and diversifies livelihoods, reducing vulnerability to climate shocks.

04

Leverages strong policy alignment and regional synergies: Both the West Pokot and Karamoja development plans prioritize expanding access to renewable energy, including solar, clean cooking, and supportive policy frameworks. This creates a conducive environment for investment and facilitates cross-border collaboration, maximizing impact and efficiency.

05

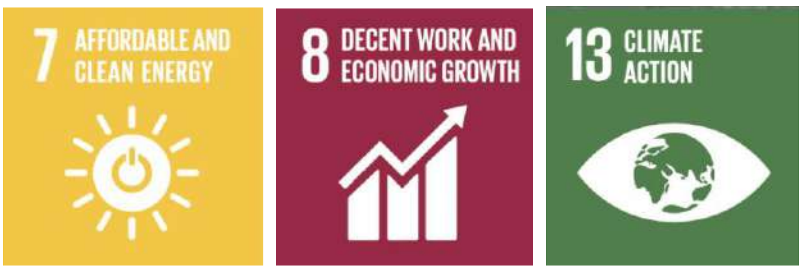
Attracts diverse funding and investment opportunities: The global focus on renewable energy and climate change mitigation makes this sector attractive to a wide range of investors, including impact investors, development finance institutions, and private sector companies. This increases the potential for securing the necessary capital to address the energy needs of the borderland.

6.5.4 Cross-border IOA and EIOA close-ups

Cross-border IOA 8

Renewable energy solutions for agri-businesses and value addition

Access to reliable energy is one of the main constraints limiting agri-business growth and value addition in the borderland. Many small-scale processors, cooperatives, and traders lack the power needed for cooling, milling, drying, or water pumping—resulting in high post-harvest losses and low returns. Solar-powered solutions can bridge this gap, enabling year-round processing and reducing reliance on costly diesel. This opportunity supports regional development goals around agricultural transformation, off-grid energy access, and climate resilience. Both Uganda and Kenya are actively promoting decentralized renewable energy through rural electrification strategies, yet uptake remains limited in borderland areas. With active cross-border trade and similar energy deficits on both sides, joint investment in solar and mini-grid infrastructure can enhance productivity, boost rural enterprise, and drive inclusive, green growth across the region.



Business model	Deploy solar-powered equipment for agro-processing and livestock processing activities such as milling, cooling, drying, and powering abattoirs through lease-to-own or pay-as-you-go models. Target cooperatives, processing hubs, abattoirs, and trader groups in off-grid and weak-grid areas. Partner with energy service companies and agri-focused financiers. Blend private investment with results-based financing and grants to reduce upfront costs and de-risk adoption.
Beneficiaries	Agri-businesses and cooperatives in the borderland will benefit from better access to reliable and affordable energy for processing, storage, and other value-adding activities. Farmers and livestock keepers will also indirectly benefit from more robust and efficient value chains.
Economic factors	The borderland hosts over 100 cooperatives and numerous small agri-businesses with unmet energy needs, creating strong demand for decentralized power solutions. Solar-powered agri-use systems reduce diesel OPEX by up to 70% and enable year-round production. When deployed via pay-as-you-go or leasing, and anchored to cooperatives, they generate 20–35% ROI within 2–4 years, based on regional benchmarks. Ticket sizes range from $25,000-$100,000 for standalone units to $500,000 for mini-grids serving multiple enterprises.[95]
Enabling factors	Rising energy demand in agri-processing and livestock value chains creates a ready market. Several facilities (e.g. abattoirs and processing plants) have been built but remain underutilized due to unreliable power, highlighting a gap for solar solutions. Both Uganda and Kenya support off-grid solar through national electrification plans. Donors and DFIs offer results-based financing for rural energy access. Expanding mobile money use enables flexible payment models like pay-as-you-go in remote areas.
Risk factors	High upfront costs and limited access to affordable financing can deter adoption. Technical capacity for maintenance is low in remote areas, risking equipment failure. Weak demand aggregation may affect viability of mini-grids. Perceived risk from insecurity and lack of long-term off-take agreements can discourage private sector investment.
Development Outcome	Renewable energy solutions will improve productivity, reduce post-harvest losses, and enable year-round processing for rural enterprises. They will lower energy costs, enhance incomes, and support green, inclusive growth. Women and youth-led agri-businesses in off-grid areas will gain access to affordable energy, strengthening their participation in local value chains.
Cases in IOA space	SolarGen and Zeronet deliver solar-powered solutions for irrigation, milling, and agro-enterprises in off-grid border areas. In Kenya, SunFunder financed solar mini-grids and cold storage for food processors through partnerships with off-grid energy companies. These models use pay-as-you-go and lease-to-own structures to serve agro-enterprises, reducing diesel dependency and enabling value addition in rural areas. Kenya Climate Ventures and Rafode finance PAYGO systems via concessional loans and micro-leases to expand energy access and productive use in agriculture and trade. [96]

[95]Estimations based on interview data with renewable energy actors in the IOA space and benchmark regional studies.

[96]Interviews with private renewable energy actor in West Pokot; Interview with Climate Impact Investing Fund with operations in West Pokot; Interview with Energy Solutions company with operations in Kenya and Uganda

Emerging IOA 4

Biogas units for vendors at cross-border markets

Business white space

Cooking in cross-border markets across Karamoja and West Pokot is still dominated by firewood and charcoal, exposing vendors (mainly women) to health risks, high fuel costs, and environmental degradation. At the same time, livestock waste and food scraps are abundant but underutilized. Biogas units offer a clean, cost-effective solution to meet the energy needs of food vendors while reducing deforestation and waste accumulation in crowded market spaces. Despite its strong development relevance, this remains a business white space due to limited awareness, high initial investment, and the absence of service delivery models tailored to informal market settings. While biogas is part of national clean energy goals, it has received little attention in borderland energy or trade infrastructure planning. With shared market dynamics and similar energy challenges on both sides of the border, biogas presents a cross-border opportunity for inclusive, sustainable, and climate-resilient investment.

Business model	Install small-scale biogas units at cross-border markets using livestock and organic waste as feedstock. Target food vendors, market cooperatives, and women's groups as primary users. Operate through a shared-access or lease-to-own model with modest user fees for cooking energy. Partner with local authorities for waste management and site access. Finance through blended models combining grants, carbon financing, and social enterprise capital to reduce upfront costs and build viability.
Beneficiaries	The investment will benefit market food vendors (especially women) by providing clean, affordable cooking fuel and reducing reliance on firewood. It will also support waste collectors involved in feedstock supply and system maintenance, and indirectly benefit market users and the surrounding community through reduced air pollution and improved waste management.
Economic factors	Large cross-border markets offer strong demand for biogas from food vendors, with ample feedstock from market waste. If successful, pilots could scale to power public offices, cold storage, and other market infrastructure. Small biogas units can yield ROI of 10–15% over 4–6 years through energy fees and waste management savings. Ticket sizes range from $10,000–$50,000 per unit depending on size and model, with potential for modular scale-up.[97]
Enabling factors	High volumes of organic waste from livestock and food markets provide a steady feedstock supply. Vendors face rising charcoal and firewood costs, creating demand for affordable alternatives. Clean cooking is a growing national priority, and community kitchens or cooperatives offer platforms for shared infrastructure.
Risk factors	High upfront costs and limited willingness to pay among informal vendors can hinder adoption. Maintenance challenges and lack of local technical capacity may reduce system reliability. Weak demand aggregation and unclear ownership models can undermine sustainability. Cultural perceptions and lack of awareness may also limit initial acceptance.
Development Outcome	This opportunity will improve access to clean, affordable energy for market vendors, reducing reliance on harmful fuels and lowering health risks. It will promote sustainable waste management and environmental protection. Women will benefit from safer, more efficient cooking solutions that reduce time, cost, and exposure to smoke.
Existing barriers / gaps	The absence of viable business models for shared-use biogas in informal markets, coupled with weak demand aggregation and limited cost recovery mechanisms, deters private investment. Lack of awareness, technical capacity, and clear ownership or maintenance structures further undermine long-term sustainability and scale-up potential.
Policy recommendations	Subsidize pilot biogas units in high-traffic border markets to demonstrate viability. Support local governments to integrate clean cooking into market infrastructure plans. Establish cross-border cooperation on waste management and clean energy standards to enable scalable, harmonized solutions across shared market corridors.

[97] Estimations based on interview data with district officials, renewable energy companies operating in the borderland, and regional studies.

6.6 Tourism

6.6.1 Cross-border sectoral needs

Tourism has significant potential as an economic driver in the borderland, leveraging the region's rich cultural heritage, diverse landscapes, and unique wildlife attractions.[98] Both regions boast rich cultural heritage, diverse landscapes, and unique wildlife, making them attractive for eco-tourism, cultural tourism, and adventure tourism. Karamoja, in particular, is home to the Kidepo Valley National Park, which is recognized as one of Africa's most stunning yet least-visited parks, offering a pristine wilderness experience. Similarly, West Pokot features breathtaking landscapes, including the Cherangany Hills and the stunning waterfalls of Nasolot, which could serve as major attractions for nature lovers and adventure seekers.

Limited infrastructure and accessibility remain key barriers to tourism development. Many of the region's prime attractions are located in remote areas with poor road networks, making them difficult to reach, especially during the rainy season when roads become impassable. Air connectivity is also limited, with few airstrips capable of handling commercial flights, restricting access for high-end tourists who often prefer air travel to remote destinations. Accommodation options are scarce, with only a handful of lodges and campsites catering to visitors, most of which do not meet the expectations of international tourists. Without investment in transport, lodging, and other tourism-related infrastructure, the sector is unlikely to realize its potential.[99]

Security concerns and perceptions of instability have also deterred tourists from visiting the area, despite improvements in peace and stability over recent years.[100] Historically, the region has been associated with cattle rustling, intercommunal conflicts, and cross-border insecurity, which have reinforced negative perceptions among both domestic and international tourists. While security conditions have improved through government-led disarmament programs and community peace initiatives, lingering concerns about safety still affect the willingness of tour operators to promote these destinations. The West Pokot County government funded the construction of a county hotel in Kopoch to boost the local industry, but the project stalled due to the lack of private sector interest. Strengthening security measures, improving emergency response systems, and apromoting positive narratives will be critical to changing perceptions.

The lack of structured marketing and branding strategies has further hindered tourism growth, as Karamoja and West Pokot remain relatively unknown compared to other tourist destinations in Uganda and Kenya.[101] Unlike Kenya's Maasai Mara or Uganda's Bwindi Impenetrable Forest, which are globally recognized, these regions have not received sufficient attention in national and international tourism campaigns. Weak marketing efforts, coupled with limited online presence and promotional materials, mean that potential visitors often overlook these destinations. A coordinated effort by local governments, tourism boards, and private sector actors is needed to create a distinct identity for Karamoja and West Pokot, highlighting their unique cultural and natural attractions to wider audiences.

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[98]UNDP Africa Borderlands Centre. (2022). The Karamoja Cluster: Rapid Conflict Analysis and Gender Assessment (Kenya and Uganda).
[99]Dr. Tulel Cherop Patricia., Dr. Beatrice Ombaka & Dr. Ann Kariuk . "The Effects of Destination Marketing on Tourism Performance in West Pokot County", Africa Journal of Technical & Vocational Education & Training, (2020): https://afritvet.org/index.php/Afritvet/article/view/107.
[100]Dr. Tulel Cherop Patricia., Dr. Beatrice Ombaka & Dr. Ann Kariuk . "The Effects of Destination Marketing on Tourism Performance in West Pokot County", Africa Journal of Technical & Vocational Education & Training, (2020): https://afritvet.org/index.php/Afritvet/article/view/107.
[101]Council of Governors (COG) & Kenya Institute for Public Policy Research and Analysis (KIPPRA). West Pokot County COVID-19 Socio-Economic Re-engineering and Recovery Strategy FY 2020/21–2022/23. November 2020. Available at: https://maarifa.cog.go.ke/sites/default/files/2022-08/West%20Pokot%20County%20COVID-19%20Social%20Economic%20Re-engineering%20and%20Recovery%20Strategy%20FY%202020_21-2022_23.pdf

Community engagement and benefit-sharing mechanisms in the tourism sector are essential to ensure that local populations see tangible benefits from tourism development.[102] Many communities in Karamoja and West Pokot remain skeptical of tourism due to past experiences where external actors profited from the sector without meaningful local participation. Ensuring that tourism initiatives are community-led, providing training for local guides, and developing cultural tourism programs that allow visitors to interact with local traditions can foster a more inclusive and sustainable industry.

6.6.2 Cross-border policy priorities

Both West Pokot and Karamoja have outlined policy priorities within their respective development plans that aim to develop the tourism sector, leveraging their unique natural and cultural assets:

- **West Pokot's CIDP** prioritizes expanding tourism infrastructure, including developing county tourist hotels, conference facilities, and cultural centers. A strong emphasis is placed on wildlife conservation and protected areas management, including restocking Nasolot National Reserve and establishing conservancies. The plan also focuses on marketing and branding West Pokot as a sustainable tourism destination, improving accessibility through road grading and opening new tourism circuits, and promoting community engagement through cultural and sports activities.
- **Karamoja's KIDP3** emphasizes sustainable and community-based tourism, promoting activities like cultural festivals, mountain cycling, rock climbing, and wilderness camping. A key priority is investing in tourism infrastructure, including cultural museums, tourism roads, improvements to the Kidepo aerodrome, and developing "Manyatta" tourism experiences. The plan also highlights nature-based and adventure tourism, marketing Karamoja for activities like mountain hiking and bird-watching. Besides, Karamoja's plan emphasizes community involvement in wildlife conservation and human-wildlife conflict management, and economic empowerment of local communities via tourism.

[102] Manyindo, J., Mukuru, E., Massyn, P. J., Sagal, A., Banobi, H. 2014. An Assessment of the Potential for Community Tourism in the Karamoja Sub-Region. Maendeleo ya Jamii, Kampala, Uganda..

Overlapping cross-border priorities:

- Develop joint marketing campaigns to brand and promote the Karamoja-West Pokot region as a unified, unique tourism destination
- Invest in shared tourism infrastructure
- Create and promote cross-border tourism circuits and itineraries
- Establish joint training programs for local communities in hospitality, guiding, and tourism-related crafts
- Harmonize wildlife conservation efforts (including joint patrols, habitat protection, and management of human-wildlife conflict)
- Promote cultural tourism experiences that showcase the shared heritage and traditions of communities across the borderland
- Improve accessibility to Karamoja and West Pokot, (including by upgrading airstrips and promoting air connectivity)
- Support the establishment of community conservancies across the border

6.6.3 Rationale for sector prioritization

01

Leverages untapped potential for economic diversification: Both Karamoja and West Pokot face economic challenges and over-reliance on traditional livelihoods (pastoralism, agriculture). Tourism offers a significant opportunity to diversify income sources, create jobs, and stimulate economic growth in a sector with demonstrable, yet unrealized, potential.

02

Addresses shared infrastructure deficits and accessibility challenges: Poor infrastructure (roads, accommodation) is a major constraint in both regions, limiting access to key tourism sites. Investing in tourism infrastructure directly addresses this shared need, benefiting not only the tourism sector but also improving connectivity for local communities and other economic activities.

03

Promotes cross-border cooperation and regional integration: The nature of tourism attractions (shared landscapes, cultural heritage) necessitates a collaborative approach. Joint marketing, infrastructure development, and security measures foster cooperation, reduce potential conflict over resources, and strengthen regional integration, aligning with broader development goals.

04

Aligns with explicit policy priorities and local aspirations: Both the West Pokot CIDP and Karamoja's KIDP3 explicitly prioritize tourism development, including infrastructure investment, community engagement, and marketing. This demonstrates strong local ownership and political will, increasing the likelihood of investment success and sustainability.

05

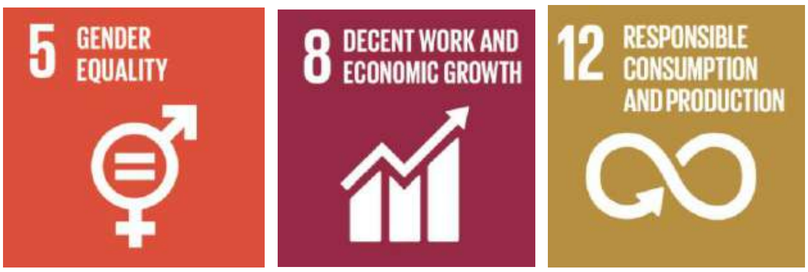
Fosters environmental conservation and sustainable development: Tourism, when managed sustainably, can provide a strong incentive for conserving natural resources and biodiversity. This aligns with the need to protect the region's unique landscapes and wildlife, while also promoting a more environmentally friendly development path, addressing long-term sustainability concerns.

6.6.4 Cross-border IOA and EIOA close-ups

Cross-border IOA 9

Cross-border sustainable tourism services

The Karamoja–West Pokot borderland offers a unique yet underdeveloped opportunity for sustainable tourism, with its rich cultural heritage, dramatic landscapes, wildlife corridors, and cross-border pastoralist traditions. Despite growing domestic interest and international curiosity, tourism services remain limited, informal, and poorly connected, especially across the Kenya–Uganda border. Investments in guided cultural experiences, eco-lodges, cross-border trekking routes, and community-based tourism can generate income, preserve cultural heritage, and create jobs, particularly for youth and women. This opportunity aligns with national tourism and conservation strategies in both countries, which increasingly prioritize low-impact, community-driven models. With the right investment in infrastructure, hospitality services, and cross-border coordination, the region could position itself as a distinctive destination for responsible tourism that connects landscapes and cultures. Strengthening the tourism offering on both sides of the border also reinforces peaceful cross-border collaboration and diversifies rural economies beyond agriculture and livestock.



Business model	Develop and market cross-border tourism itineraries showcasing the unique cultural and natural attractions of Karamoja and West Pokot. Train and employ local guides, establish community-run eco-lodges and campsites, and create handicraft marketing platforms. Engage community tourism associations to manage services and benefit-sharing. Target domestic, regional, and international tourists seeking authentic cultural experiences and nature-based adventures. Finance through blended capital (impact investment, tourism development grants, and public-private partnerships) to cover infrastructure, training, and marketing costs.
Beneficiaries	The investment will benefit local communities, youth, and women through employment in guiding, hospitality, and cultural services. It will also support community tourism associations and cooperatives managing eco-sites, generating income and fostering cross-border collaboration.
Economic factors	Nationally, tourism contributes 9% to Kenyan GDP, annual earnings from tourism reached USD 1.6 billion in 2018 in Uganda, and numbers of tourists have been steadily increasing in both countries. The Karamoja-West Pokot region's unique cultural and ecological assets attract growing interest from domestic and niche international tourists. Community-based tourism models can generate ROI of 15–25% within 3–5 years, especially when linked to cultural events and cross-border circuits. Ticket sizes range from $50,000 for site development to $500,000 for integrated eco-tourism hubs.[103]
Enabling factors	Unique cultural and ecological assets draw interest from domestic and international tourists. Local communities are already engaged in artisanal crafts and cultural events. Both Uganda and Kenya promote community-based tourism in national strategies. Improved road networks and peacebuilding initiatives enhance accessibility and safety across key cross-border routes.
Risk factors	Limited infrastructure, including roads, signage, and accommodations, can restrict tourist access. Insecurity or perceptions of instability may deter visitors. Low capacity in hospitality and tour operations could affect service quality. Fragmented coordination across the border may hinder the development of integrated tourism circuits and shared marketing efforts.
Development Outcome	This opportunity will diversify rural incomes, generate jobs in guiding, hospitality, and crafts, and strengthen community ownership of cultural and natural resources. It will promote peaceful cross-border collaboration and enhance the region's visibility. Women and youth will benefit from inclusive tourism enterprises, boosting their economic participation and social empowerment.
Cases in IOA space	In Karamoja, Kara-Tunga operates a community-based tourism model offering cultural tours, hiking, and cross-border experiences. The enterprise partners with local communities to train guides, host visitors, and manage revenue sharing. It demonstrates how inclusive tourism can promote cultural preservation, local employment, and regional visibility. Community-based tourism initiatives also exist around Mount Elgon (Uganda/Kenya border), offering models for local engagement.[104]

[103] Estimations based on interview data with tourism actors in the IOA space and benchmark regional studies.

[104] African Wildlife Foundation (AWF). Koija Starbeds Ecolodge: A Case Study in Community-Based Ecotourism. Nairobi: AWF, n.d. Available at: https://www.awf.org/sites/default/files/media/Resources/Books%20and%20Papers/Koija_Starbeds_Ecolodge_Case_study.pdf; White, R. Conservation, Development and Tourism in a Transboundary Protected Area: The Case of the Mount Elgon Region. PhD Thesis, University of York, 2016. Available at: https://etheses.whiterose.ac.uk/id/eprint/15501/7/White_Rose_LJ517.pdf; Onyango, J. & Nthiga, R. Sustainable Tourism in Kenya's Coast: Leveraging Green Tourism, Community-Based Initiatives and Local Empowerment through the Lens of Dependence Theory. ResearchGate, 2024. Available at: https://www.researchgate.net/publication/384445385_Sustainable_Tourism_in_Kenya%27s_Coast_Leveraging_Green_Tourism_Community-Based_Initiatives_and_Local_Empowerment_through_the_Lens_of_Dependence_Theory; Interview with private company delivering tourism services in karamoja

7 | CONCLUSION

The borderland between Karamoja and West Pokot is marked by urgent development needs but also by rich economic potential, particularly in agriculture, livestock, renewable energy, tourism, and financial services. Through a data-driven and participatory approach, we identified nine Investment Opportunity Areas (IOAs) and four Emerging IOAs (EIOAs) that combine commercial viability with strong potential for SDG impact. These include both scalable, market-ready investments and high-impact white spaces requiring enabling support.

Despite promising trends in regional policy alignment, infrastructure expansion, and peacebuilding, major gaps remain in financing, service delivery, and institutional coordination. Investment in inclusive business models will need to be accompanied by targeted public and donor support to overcome persistent risks such as climate shocks, market informality, and local insecurity. At the same time, recent shifts in international aid—such as the suspension of some of USAID activities—underscore the urgency of mobilizing alternative capital and private sector leadership to sustain progress.

To translate these opportunities into action, the next step is to convene a Borderlands Private Sector Investor Forum, as outlined in the SDG Investor Map framework. This platform should bring together investors, development partners, local authorities, and community-based enterprises to present the identified IOAs and EIOAs, explore partnerships, and shape financing strategies. The Forum will also serve to validate findings, share lessons from case studies, and align with national and regional development plans.

Parallel to this, development partners should support deal structuring and pipeline development, including technical assistance to early-stage enterprises, risk mitigation tools (e.g., guarantees, blended finance), and support to policy reforms that unlock white space investments. Priority should also be given to enhancing cross-border coordination frameworks to support shared infrastructure, harmonized regulation, and market integration.

With the right mix of patient capital, local ownership, and cross-border collaboration, this initiative can catalyze a new era of sustainable investment in African borderlands – building livelihoods, strengthening peace, and advancing inclusive development at the margins.

8 | ANNEXES

8.1 References

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8.2 List of stakeholders interviewed

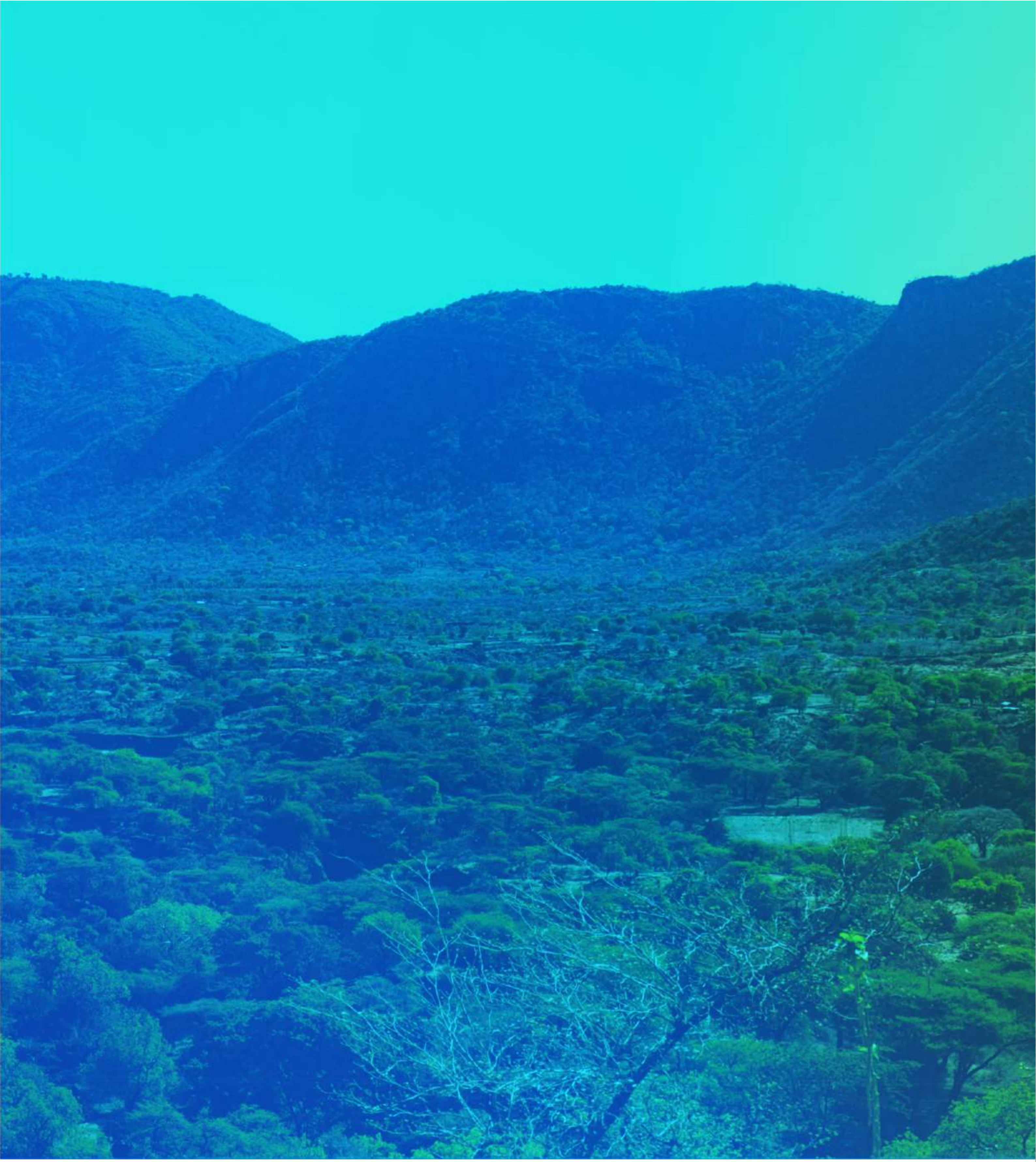
The following table provides a list of stakeholders that we engaged through Key Informant Interviews (KIIs).

Code	Stakeholder type	Location
P_01	MSME Expert Consultant	West Pokot
P_02	NGO focusing on youth empowerment	Karamoja
P_03	Clean energy company	Karamoja
P_04	Gum Arabic supplier	Western Kenya
P_05	Private sector umbrella association	Kenya
P_06	Pastoralist-focused research & advocacy organisation	Karamoja
P_07	Organisation promoting pastoralist values and cultures	Karamoja
P_08	Impact foundation supporting entrepreneurs	West Pokot
P_09	NGO supporting vulnerable communities	Uganda
P_10	NGO focusing on youth empowerment	Eastern Uganda
P_11	ITW 1 with Chamber of Commerce and Industry	West Pokot
P_12	NGO focusing on poverty and hunger	Karamoja
P_13	National Highways Authority	Kenya
P_14	Construction company	West Pokot
P_15	NGO focusing on crow-border women empowerment	West Pokot
P_16	NGO focusing on governance, climate change, nutrition and health	West Pokot
P_17	ITW 1 with International NGO focusing on value chains and market systems	West Pokot
P_18	West Pokot farmer cooperative	West Pokot
P_19	ITW 2 with Chamber of Commerce and Industry	West Pokot
P_20	West Pokot County, Trade and Industry	West Pokot
P_21	Ministry of Agriculture, Livestock Directorate	West Pokot

P_22	West Pokot County Commissioner	West Pokot
P_23	Honey Refinery Farm	West Pokot & Karamoja
P_24	West Pokot Agriculture & Trade Department	West Pokot
P_25	Microfinance Institution	West Pokot
P_26	Kenya Investment Authority (ITW 1)	West Pokot
P_27	Cooperative for milk production	West Pokot
P_28	Credit facility	West Pokot
P_29	ITW 2 with International NGO focusing on value chains and market systems	West Pokot
P_30	County Government, Directorate of Resource Mobilization	West Pokot
P_31	Renewable energy and water solutions company	West Pokot
P_32	MSME Authority	West Pokot
P_33	County Department of Agriculture, Agribusiness	West Pokot
P_34	Kenya Investment Authority (ITW 2)	West Pokot
P_35	Mining Cooperative	West Pokot
P_36	Dairy Cooperative (ITW with board members)	West Pokot
P_37	Dairy Cooperative (ITW with cooperative manager)	West Pokot
P_38	Poultry cooperative	West Pokot
P_39	Gum Arabic cooperative	Karamoja
P_40	Kenya Climate Fund	West Pokot
P_41	Women umbrella organisation	Karamoja
P_42	Comoany providing agricultural inputs and extension services	Uganda
P_43	Consultant in Agribusiness	Uganda
P_44	Pastoralist Community organisation	Kenya
P_45	Cross-border women association	Karamoja

P_46	Agribusiness Consultant for a large international organisation	Karamoja
P_47	District Commercial Officer, Moroto	Moroto
P_48	Manager of Moroto Livestock Market	Moroto
P_49	Manager of a major commercial bank, Moroto branch	Moroto
P_50	Manager of a major commercial bank, Moroto branch	Moroto
P_51	Manager of a small handicraft enterprise	Moroto
P_52	Manager of Moroto's main market	Moroto
P_53	Manager of Moroto's slaughterhouse	Moroto
P_54	Microfinance Institution	Moroto
P_55	Manager of a major commercial bank, Moroto branch	Moroto
P_56	High-level official within the Police forces	Karamoja
P_57	District Veterinary Officer	Moroto
P_58	Commercial District Officer, Amudat	Amudat
P_59	FGD with district officials in Amudat	Amudat
P_60	Manager of general merchandise shop (electronics)	Amudat
P_61	Manager of general merchandise shop	Amudat
P_62	Manager of general merchandise (clothing) shop	Amudat
P_63	Honey producer	Amudat
P_64	Agrovet shop	Amudat
P_65	District entomologist	Moroto
P_66	Manager of honey selling shop	Moroto
P_67	Agribusiness expert and consultant for large multinational organisation	Karamoja
P_68	District commissioner, Amudat	Amudat
P_69	Manager of sugar & oil storage shop	Amudat
P_70	Honey producer	Moroto

P_71	Agrovet shop	Moroto
P_72	Manager of Moroto's livestock market SACCO	Moroto
P_73	Delivery agents at Moroto central market	Moroto
P_74	Agrovet shop	Moroto
P_75	Non-profit organization focused on food security and livelihoods	Moroto
P_76	Manager of touristic accommodation	Moroto
P_77	FGD with non-profit organisations	Moroto
P_78	FGD with a group of livestock traders in Napak	Napak



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